

**Directorate General of Water Resources  
Ministry of Public Works  
The Republic of Indonesia**

**THE STUDY  
ON  
COUNTERMEASURES FOR SEDIMENTATION  
IN  
THE WONOGIRI MULTIPURPOSE DAM RESERVOIR  
IN  
THE REPUBLIC OF INDONESIA**

**FINAL REPORT**

**VOLUME-VI DATA BOOK**

**JULY 2007**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

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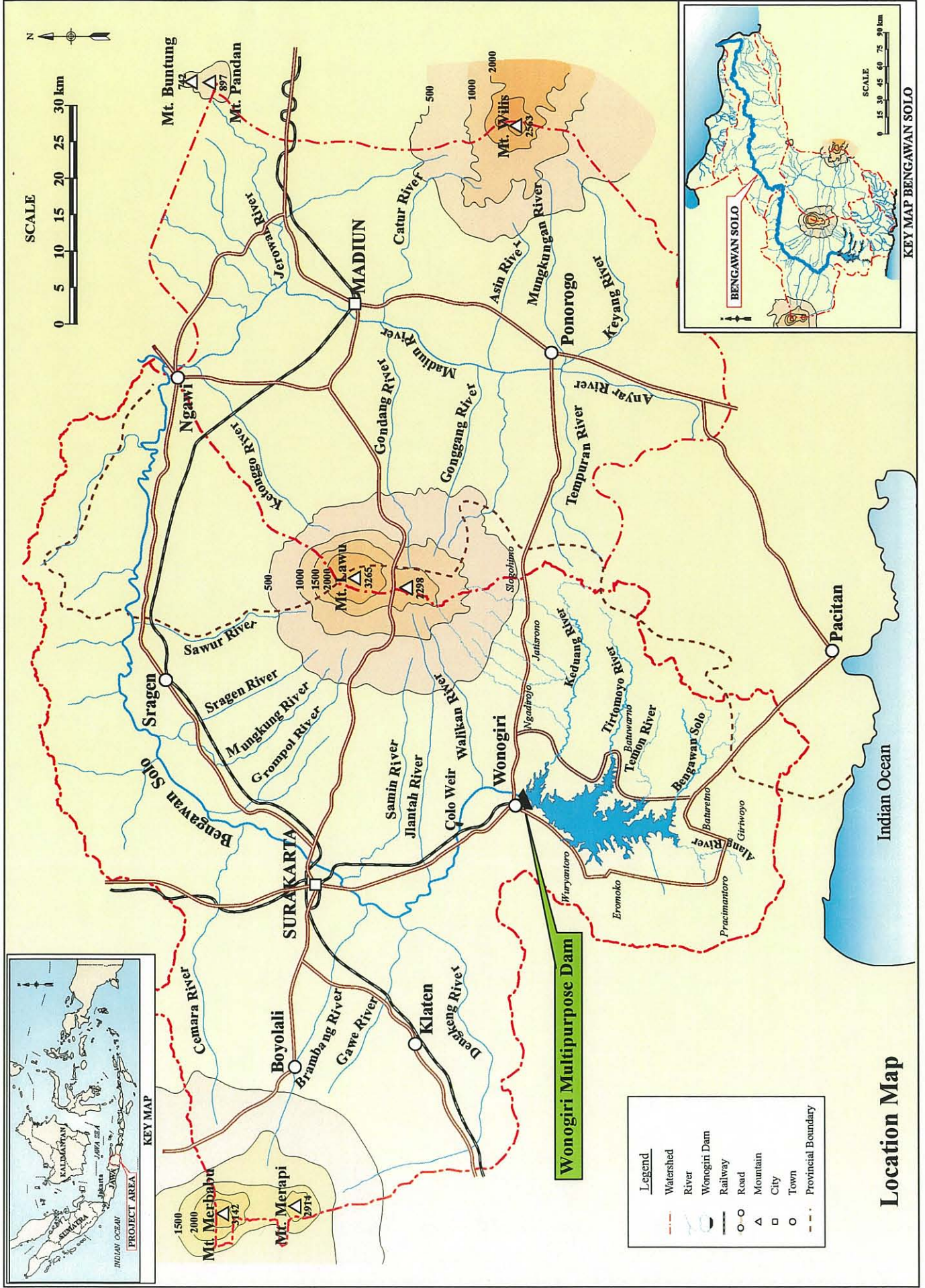
# FINAL REPORT

## Composition of Reports

- VOLUME-I EXECUTIVE SUMMARY
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Part I : Master Plan Study  
Part II : Feasibility Study
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- No.1 Meteorological and Hydrological Data  
No.2 Water Quality and Turbidity
- VOLUME-VII PHOTO BOOK

### EXCHANGE RATE

The exchange rate used in this Study is:	
Master Plan Study	US Dollar (US\$) 1.00 = Indonesia Rupiah (Rp.) 10,035 = Japanese Yen (Y) 119.63 as of December 2005
Feasibility Study	US Dollar (US\$) 1.00 = Indonesia Rupiah (Rp.) 9,050 = Japanese Yen (Y) 118.92 as of December 2006



Location Map

*No. 1*  
*Meteorological and*  
*Hydrological Data*

THE STUDY ON  
COUNTERMEASURES FOR SEDIMENTATION  
IN  
THE WONOGIRI MULTIPURPOSE DAM RESERVOIR  
IN  
THE REPUBLIC OF INDONESIA

**FINAL REPORT**

**VOLUME-VI DATA BOOK**

**No.1: Meteorological and Hydrological Data**

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***CHAPTER 1***  
***METEOROLOGICAL DATA***

**CHAPTER 1 METEOROLOGICAL DATA**

***1.1 Availability of Meteorological Data***





**CHAPTER 1 METEOROLOGICAL DATA**

***1.2 Monthly Meteorological Record***

# Monthly Meteorological Data at Ngancar

Observatory Name : Ngancar

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2002																
January	31.6	24.6	28.1	*	*	97.6	*	*	*	*	*	312.0	61.0	0.6	*	4.9
February	31.0	24.5	27.8	*	*	97.3	*	*	*	*	*	526.0	72.0	0.4	*	3.1
March	31.8	25.0	28.4	*	*	97.5	*	*	*	*	*	321.0	73.0	0.5	*	4.0
April	31.6	23.9	27.8	*	*	97.6	*	*	*	*	*	232.0	37.0	0.9	*	3.7
May	32.2	24.8	28.5	*	*	97.5	*	*	*	*	*	72.0	49.0	0.6	*	4.5
June	30.4	23.8	27.1	*	*	97.6	*	*	*	*	*	0.0	0.0	1.6	*	5.0
July	30.5	23.7	27.1	*	*	97.4	*	*	*	*	*	0.0	0.0	1.6	*	5.0
August	31.3	23.4	27.4	*	*	97.6	*	*	*	*	*	3.0	3.0	2.1	*	7.3
September	31.3	24.5	27.9	*	*	96.6	*	*	*	*	*	0.0	0.0	2.7	*	9.0
October	32.6	28.8	30.7	*	*	97.4	*	*	*	*	*	34.0	27.0	2.6	*	8.6
November	31.9	25.7	28.8	*	*	98.5	*	*	*	*	*	142.0	83.0	2.0	*	7.4
December	31.7	25.2	28.5	*	*	95.6	*	*	*	*	*	252.0	47.0	0.7	*	5.0

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2003																
January	31.4	25.1	28.3	*	*	98.6	*	*	*	*	*	239.0	43.0	0.5	*	*
February	31.0	25.1	28.1	*	*	98.7	*	*	*	*	*	525.0	103.0	0.3	*	*
March	31.9	25.4	28.7	*	*	98.8	*	*	*	*	*	296.0	64.0	0.6	*	*
April	32.3	25.5	28.9	*	*	99.1	*	*	*	*	*	24.0	10.0	0.8	*	*
May	31.7	25.0	28.4	*	*	96.8	*	*	*	*	*	37.0	20.0	1.1	*	*
June	31.9	24.3	28.1	*	*	98.8	*	*	*	*	*	7.0	4.0	1.1	*	*
July	31.3	23.4	27.4	*	*	98.4	*	*	*	*	*	0.0	0.0	1.9	*	*
August	31.7	23.4	27.6	*	*	98.9	*	*	*	*	*	0.0	0.0	2.1	*	*
September	32.1	25.5	28.8	*	*	98.5	*	*	*	*	*	0.0	0.0	3.0	*	*
October	31.7	25.3	28.5	*	*	97.9	*	*	*	*	*	88.0	65.0	2.8	*	*
November	31.8	25.4	28.6	*	*	98.3	*	*	*	*	*	99.0	28.0	1.7	*	*
December	30.6	25.1	27.9	*	*	98.6	*	*	*	*	*	258.0	35.0	0.6	*	*

Note: \* = no data is available

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2004																
January	31.8	25.6	28.7	*	*	98.6	*	*	*	*	*	291.0	68.0	0.5	*	4.4
February	31.7	25.5	28.6	*	*	97.6	*	*	*	*	*	160.0	54.0	0.2	*	4.3
March	31.5	25.5	28.5	*	*	98.1	*	*	*	*	*	224.0	40.0	0.4	*	3.5
April	32.1	25.5	28.8	*	*	97.5	*	*	*	*	*	69.0	14.0	0.9	*	5.0
May	31.7	25.5	28.8	*	*	97.7	*	*	*	*	*	70.0	21.0	1.3	*	4.8
June	30.9	24.9	27.9	*	*	97.7	*	*	*	*	*	44.0	31.0	1.2	*	5.0
July	31.2	23.2	27.2	*	*	97.8	*	*	*	*	*	20.0	10.0	1.3	*	4.7
August	29.9	22.9	26.4	*	*	98.3	*	*	*	*	*	0.0	0.0	1.9	*	*
September	31.7	25.3	28.5	*	*	98.5	*	*	*	*	*	3.0	3.0	2.5	*	*
October	32.1	25.4	28.6	*	*	98.6	*	*	*	*	*	8.0	8.0	2.6	*	*
November	32.7	25.4	28.6	*	*	98.5	*	*	*	*	*	150.0	43.0	1.7	*	6.3
December	31.0	25.1	27.9	*	*	98.4	*	*	*	*	*	492.0	90.0	0.8	*	3.6

Note: \* = no data is available

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2005																
January	31.7	25.5	28.6	*	*	98.4	*	*	*	*	*	291.0	75.0	0.5	*	4.5
February	35.9	25.5	28.6	*	*	98.6	*	*	*	*	*	296.0	50.0	0.4	*	4.9
March	32.5	25.5	28.6	*	*	98.6	*	*	*	*	*	300.0	88.0	0.5	*	4.8
April	31.9	25.5	28.6	*	*	98.5	*	*	*	*	*	144.0	64.0	0.6	*	4.4
May	32.5	25.5	28.6	*	*	98.5	*	*	*	*	*	0.0	0.0	*	*	*
June	35.1	24.3	29.7	*	*	97.4	*	*	*	*	*	11.0	8.0	1.1	*	6.3
July	31.2	23.3	27.3	*	*	97.1	*	*	*	*	*	0.0	0.0	1.9	*	8.0
August	31.7	27.5	29.6	*	*	97.1	*	*	*	*	*	0.0	0.0	2.1	*	2.4
September	32.1	28.5	30.5	*	*	97.6	*	*	*	*	*	0.0	0.0	3.0	*	0.6
October	31.7	28.5	30.1	*	*	97.1	*	*	*	*	*	5.0	2.0	2.8	*	0.2
November	31.8	28.6	30.2	*	*	97.6	*	*	*	*	*	144.0	54.0	1.7	*	4.8
December	30.7	27.9	29.3	*	*	97.8	*	*	*	*	*	258.0	35.0	0.6	*	5.3

Note: \* = no data is available

### Monthly Meteorological Data at Baturetno

Observatory Name : Baturetno

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Min	Total (mm)	Max	
1984																
January																
February																
March																
April																
May																
June																
July																
August																
September																
October																
November																
December																

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Min	Total (mm)	Max	
1985																
January	31.0	22.0	26.2													
February	31.0	22.0	26.9													
March	31.0	23.0	26.4													
April	31.0	23.0	27.0													
May	31.0	21.0	26.7													
June	30.0	21.0	26.2													
July																
August	32.0	20.0	26.4													
September	33.0	22.0	27.4													
October	32.0	21.0	27.5													
November																
December	33.0	22.0	26.3													

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Min	Total (mm)	Max	
1986																
January																
February																
March																
April																
May																
June																
July																
August																
September																
October																
November																
December																

Note:

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Min	Total (mm)	Max	
1987																
January	25.5	24.0	24.8									541.0	64.0			4.0
February	28.0	24.0	25.9									496.0	84.0	18		4.2
March	27.0	24.0	25.2									152.0	43.0	14		4.3
April	30.5	25.5	28.8									79.0	36.0	6		4.7
May	29.0	25.5	27.2									51.0	15.0	6		4.3
June	28.5	22.5	25.9									18.0	10.0	3		4.2
July	29.0	23.0	25.5									61.0	54.0	3		5.5
August	27.5	21.5	24.5									0.0	0.0	0		7.5
September	29.0	23.0	26.5									0.0	0.0	0		8.2
October	30.5	26.5	28.8													8.9
November																
December																

### Monthly Meteorological Data at Baturetino

Observatory Name : Baturetino

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1988																
January	36.0	22.0	28.8	*	*	*	*	*	*	*	*	288.0	83.0	*	*	3.8
February	35.0	21.0	28.5	*	*	*	*	*	*	*	*	385.0	109.0	17	*	5.6
March	35.0	22.0	28.7	*	*	*	*	*	*	*	*	222.0	42.0	16	*	4.3
April	35.0	21.0	28.4	*	*	*	*	*	*	*	*	81.0	35.0	7	*	4.6
May	35.0	21.0	29.0	*	*	*	*	*	*	*	*	119.0	28.0	8	*	3.8
June	34.0	18.0	26.3	*	*	*	*	*	*	*	*	45.0	26.0	7	*	3.7
July	34.0	17.0	24.4	*	*	*	*	*	*	*	*	0.0	0.0	0	*	5.3
August	35.0	20.0	25.8	*	*	*	*	*	*	*	*	5.0	3.0	3	*	5.5
September	35.0	19.0	26.9	*	*	*	*	*	*	*	*	3.0	3.0	1	*	6.2
October	35.0	20.0	28.4	*	*	*	*	*	*	*	*	120.0	49.0	10	*	6.4
November	35.0	21.0	28.0	*	*	*	*	*	*	*	*	320.0	62.0	11	*	5.3
December	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1989																
January	35.0	21.0	27.6	*	*	*	*	*	*	*	*	286.0	72.0	20	*	5.3
February	34.0	21.0	27.3	*	*	*	*	*	*	*	*	401.0	14.3	85	*	3.7
March	34.0	21.0	27.8	*	*	*	*	*	*	*	*	187.0	40.0	14	*	3.9
April	35.0	21.0	27.8	*	*	*	*	*	*	*	*	227.0	79.0	11	*	4.1
May	35.0	20.0	26.9	*	*	*	*	*	*	*	*	99.0	18.0	13	*	4.0
June	35.0	19.0	27.2	*	*	*	*	*	*	*	*	80.0	38.0	12	*	3.4
July	38.0	19.0	26.3	*	*	*	*	*	*	*	*	106.0	70.0	9	*	4.2
August	34.0	17.0	25.3	*	*	*	*	*	*	*	*	15.0	14.0	2	*	5.6
September	35.0	17.0	26.3	*	*	*	*	*	*	*	*	33.0	33.0	1	*	7.4
October	35.0	20.0	27.3	*	*	*	*	*	*	*	*	31.0	17.0	4	*	6.5
November	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
December	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Note:

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1990																
January	33.4	22.2	27.8				*	*	*	*	*	344.0	63.0	24	57.9	93.0
February	33.6	22.1	27.8				*	*	*	*	*	228.0	55.0	17	65.9	103.0
March	33.9	22.1	28.0				*	*	*	*	*	306.0	94.0	20	48.8	138.0
April	34.2	22.2	28.2				*	*	*	*	*	61.0	22.0	10	7.7	19.0
May	33.6	21.4	27.5				*	*	*	*	*	78.0	20.0	6	14.6	39.0
June	32.2	20.4	26.3				*	*	*	*	*	17.0	10.0	2	12.9	46.0
July	31.1	19.0	25.1				*	*	*	*	*	51.0	11.4	4	11.4	38.0
August	31.7	18.8	25.2				*	*	*	*	*	19.0	7.0	3	15.7	70.0
September	33.4	19.9	26.6				*	*	*	*	*	8.0	8.0	1	106.9	218.0
October	34.3	21.2	27.7				*	*	*	*	*	34.0	29.0	3	181.5	313.0
November	35.3	22.9	29.1				*	*	*	*	*	49.0	25.0	5	149.8	265.0
December	34.0	22.3	28.1				*	*	*	*	*	327.0	54.0	19	51.5	114.0

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1991																
January	29.5	27.0	28.0	*	*	*	*	*	*	*	*	400.0	55.0	23	34.9	65.0
February	29.5	27.0	28.0	*	*	*	*	*	*	*	*	403.0	51.0	28	47.5	91.0
March	29.5	26.5	27.6	*	*	*	*	*	*	*	*	185.0	30.0	11	40.6	97.0
April	29.5	27.5	28.5	*	*	*	*	*	*	*	*	253.0	83.0	12	27.4	53.0
May	28.5	21.0	26.3	*	*	*	*	*	*	*	*	24.0	12.0	4	33.4	93.0
June	28.0	23.0	24.8	*	*	*	*	*	*	*	*	0.0	0.0	0	54.2	93.0
July	26.0	22.0	24.3	*	*	*	*	*	*	*	*	0.0	0.0	0	76.6	163.0
August	26.5	21.0	23.8	*	*	*	*	*	*	*	*	0.0	0.0	0	185.9	255.0
September	29.5	23.0	26.1	*	*	*	*	*	*	*	*	0.0	0.0	0	257.2	387.0
October	29.0	25.5	27.6	*	*	*	*	*	*	*	*	7.0	6.0	2	262.3	339.0
November	30.0	27.5	28.8	*	*	*	*	*	*	*	*	74.0	58.0	6	174.6	455.0
December	29.5	26.0	27.7	*	*	*	*	*	*	*	*	266.0	78.0	13	48.0	129.0

### Monthly Meteorological Data at Baturetino

Observatory Name : Baturetino

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max		Mean
1992																	
January	29.5	27.0	28.0	*	*	*	*	*	*	*	*	400.0	55.0	34.9	65.0	3.7	
February	29.5	27.0	28.0	*	*	*	*	*	*	*	*	403.0	51.0	47.5	91.0	3.9	
March	29.5	26.5	27.6	*	*	*	*	*	*	*	*	185.0	30.0	40.6	97.0	4.4	
April	29.5	27.5	28.5	*	*	*	*	*	*	*	*	253.0	83.0	27.4	53.0	4.1	
May	33.3	20.1	26.7	*	*	*	*	*	*	*	*	50.0	17.0	17.1	31.0	3.8	
June	31.2	18.8	25.0	*	*	*	*	*	*	*	*	19.0	16.0	34.5	115.0	3.9	
July	30.7	19.3	25.0	*	*	*	*	*	*	*	*	32.0	19.0	27.4	37.0	5.4	
August	32.1	19.6	25.8	*	*	*	*	*	*	*	*	56.0	36.0	*	*	5.2	
September	32.8	21.0	26.9	*	*	*	*	*	*	*	*	62.0	27.0	*	*	4.4	
October	33.4	21.9	27.6	*	*	*	*	*	*	*	*	89.0	40.0	*	*	3.6	
November	33.4	21.8	27.6	*	*	*	*	*	*	*	*	162.0	32.0	130.2	188.0	3.6	
December	33.3	21.2	27.2	*	*	*	*	*	*	*	*	248.0	86.0	82.5	212.0	4.2	

Note:

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max		Mean
1993																	
January	33.8	22.0	27.9	*	*	*	*	*	*	*	*	503.0	73.0	63.1	185.0	4.2	
February	33.1	20.6	26.8	*	*	*	*	*	*	*	*	233.0	40.0	78.5	161.0	4.6	
March	33.8	20.6	27.2	*	*	*	*	*	*	*	*	162.0	49.0	47.6	66.0	4.0	
April	33.2	21.5	27.4	*	*	*	*	*	*	*	*	252.0	67.0	36.6	80.0	5.4	
May	32.6	20.3	26.5	*	*	*	*	*	*	*	*	61.0	43.0	49.9	209.0	3.8	
June	33.9	20.6	27.2	*	*	*	*	*	*	*	*	100.0	30.0	*	*	3.8	
July	30.6	18.2	24.4	*	*	*	*	*	*	*	*	0.0	0.0	184.1	455.0	5.5	
August	30.9	16.8	23.9	*	*	*	*	*	*	*	*	0.0	0.0	194.3	395.0	5.8	
September	33.0	18.2	25.6	*	*	*	*	*	*	*	*	0.0	0.0	248.7	430.0	6.6	
October	34.8	20.7	27.8	*	*	*	*	*	*	*	*	3.0	3.0	316.6	808.0	6.6	
November	35.0	22.1	28.6	*	*	*	*	*	*	*	*	230.0	61.0	173.3	457.0	5.7	
December	34.3	21.7	28.0	*	*	*	*	*	*	*	*	381.0	71.0	96.6	214.0	3.8	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max		Mean
1994																	
January	34.0	20.8	27.4	*	*	*	*	*	*	*	*	338.0	46.0	62.2	94.0	4.6	
February	33.8	21.8	27.8	*	*	*	*	*	*	*	*	228.0	37.0	57.3	97.0	4.0	
March	33.5	21.5	27.5	*	*	*	*	*	*	*	*	538.0	54.0	49.7	101.0	*	
April	34.0	22.0	28.0	*	*	*	*	*	*	*	*	203.0	57.0	59.2	96.0	4.3	
May	31.4	18.0	24.7	*	*	*	*	*	*	*	*	35.0	35.0	81.5	137.0	4.2	
June	29.2	17.2	23.2	*	*	*	*	*	*	*	*	0.0	0.0	151.8	220.0	5.1	
July	31.0	26.0	29.1	*	*	*	*	*	*	*	*	0.0	0.0	189.9	497.0	5.6	
August	32.0	28.0	30.0	*	*	*	*	*	*	*	*	0.0	0.0	212.3	319.0	6.2	
September	31.6	17.6	24.6	*	*	*	*	*	*	*	*	0.0	0.0	278.9	496.0	*	
October	34.1	21.4	27.8	*	*	*	*	*	*	*	*	1.0	1.0	292.1	401.0	7.1	
November	*	*	*	*	*	*	*	*	*	*	*	89.0	51.0	*	*	*	
December	33.8	22.1	28.0	*	*	*	*	*	*	*	*	174.0	33.0	116.3	176.0	4.7	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)	
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max		Mean
1995																	
January	33.2	22.5	27.9	*	*	*	*	*	*	*	*	413.0	57.0	69.7	143.0	4.3	
February	33.0	22.1	27.6	*	*	*	*	*	*	*	*	584.0	124.0	64.3	99.0	4.3	
March	33.2	22.2	27.7	*	*	*	*	*	*	*	*	476.0	96.0	63.6	106.0	4.2	
April	32.5	22.0	27.3	*	*	*	*	*	*	*	*	191.0	74.0	71.4	103.0	4.3	
May	32.9	21.2	27.1	*	*	*	*	*	*	*	*	41.0	25.0	114.8	798.0	3.7	
June	32.9	20.7	26.8	*	*	*	*	*	*	*	*	119.0	29.0	69.9	138.0	3.3	
July	31.3	19.4	25.4	*	*	*	*	*	*	*	*	81.0	67.0	104.7	179.0	4.0	
August	30.6	17.9	24.3	*	*	*	*	*	*	*	*	0.0	0.0	173.0	237.0	5.2	
September	32.3	20.6	26.5	*	*	*	*	*	*	*	*	0.0	0.0	180.4	265.0	6.7	
October	34.0	22.6	28.3	*	*	*	*	*	*	*	*	114.0	46.0	202.5	518.0	5.7	
November	33.6	22.7	28.2	*	*	*	*	*	*	*	*	277.0	90.0	112.3	248.0	4.1	
December	33.3	21.8	27.5	*	*	*	*	*	*	*	*	194.0	37.0	82.2	163.0	2.9	

Note:

### Monthly Meteorological Data at Baturetino

Observatory Name : Baturetino

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1996																
January	33.4	21.3	27.3	*	*	*	*	*	*	*	*	257.0	69.0	65.2	109.0	3.5
February	33.0	21.3	27.2	*	*	*	*	*	*	*	*	277.0	62.0	59.5	139.0	3.1
March	33.1	20.4	26.7	*	*	*	*	*	*	*	*	145.0	42.0	56.7	83.0	3.2
April	32.7	20.5	26.6	*	*	*	*	*	*	*	*	161.0	37.0	54.8	90.0	4.3
May	31.5	18.9	25.2	*	*	*	*	*	*	*	*	*	*	75.5	112.0	4.9
June	31.9	19.9	25.9	*	*	*	*	*	*	*	*	2.0	1.0	73.4	140.0	5.1
July	31.2	19.5	25.3	*	*	*	*	*	*	*	*	11.0	6.0	110.7	161.0	5.1
August	31.9	19.5	25.7	*	*	*	*	*	*	*	*	62.0	49.0	130.0	216.0	5.3
September	32.5	19.4	26.0	*	*	*	*	*	*	*	*	0.0	0.0	245.9	405.0	5.4
October	33.2	20.1	26.6	*	*	*	*	*	*	*	*	244.0	67.0	162.8	253.0	4.3
November	33.5	22.4	27.9	*	*	*	*	*	*	*	*	151.0	36.0	118.3	214.0	4.2
December	33.0	22.1	27.5	*	*	*	*	*	*	*	*	304.0	63.0	83.7	182.0	3.8

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1997																
January	32.8	21.2	27.0	*	*	*	*	*	*	*	*	280.0	68.0	79.8	144.0	4.0
February	33.0	22.3	27.6	*	*	*	*	*	*	*	*	272.0	70.0	52.1	148.0	4.1
March	32.3	20.6	26.4	*	*	*	*	*	*	*	*	54.0	21.0	63.3	104.0	4.3
April	33.5	20.6	27.1	*	*	*	*	*	*	*	*	203.0	61.0	41.4	66.0	4.6
May	31.8	19.7	25.8	*	*	*	*	*	*	*	*	0.0	0.0	52.7	96.0	4.6
June	30.8	18.9	24.9	*	*	*	*	*	*	*	*	1.0	1.0	62.8	110.0	5.2
July	28.9	16.6	22.8	*	*	*	*	*	*	*	*	0.0	0.0	130.1	241.0	5.5
August	29.4	16.9	23.1	*	*	*	*	*	*	*	*	0.0	0.0	268.4	726.0	5.4
September	30.5	18.2	23.6	*	*	*	*	*	*	*	*	*	*	248.4	339.0	5.4
October	33.2	18.5	25.9	*	*	*	*	*	*	*	*	*	*	335.6	812.0	*
November	34.9	23.4	28.2	*	*	*	*	*	*	*	*	*	*	272.4	770.0	*
December	33.0	22.1	27.5	*	*	*	*	*	*	*	*	304.0	63.0	83.7	182.0	3.8

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1998																
January	34.8	22.7	28.7	*	*	*	*	*	*	*	*	295.0	45.0	104.9	177.0	*
February	34.9	22.2	28.5	*	*	*	*	*	*	*	*	*	*	59.1	108.0	*
March	35.0	22.3	28.6	*	*	*	*	*	*	*	*	*	*	51.6	102.0	*
April	35.0	22.1	28.5	*	*	*	*	*	*	*	*	318.0	50.0	54.5	99.0	*
May	33.9	20.7	27.3	*	*	*	*	*	*	*	*	100.0	38.0	48.1	83.0	3.3
June	33.7	21.8	27.8	*	*	*	*	*	*	*	*	195.0	53.0	41.1	89.0	4.2
July	32.8	20.6	26.7	*	*	*	*	*	*	*	*	149.0	35.0	40.2	53.0	3.9
August	32.3	19.3	25.8	*	*	*	*	*	*	*	*	6.0	4.0	86.3	155.0	4.8
September	33.3	19.1	26.2	*	*	*	*	*	*	*	*	44.0	30.0	196.3	291.0	5.6
October	34.5	23.1	28.8	*	*	*	*	*	*	*	*	251.0	40.0	137.6	206.0	*
November	35.0	22.6	28.8	*	*	*	*	*	*	*	*	174.0	56.0	87.1	133.0	*
December	34.3	22.4	28.4	*	*	*	*	*	*	*	*	276.0	55.0	73.6	230.0	3.2

Note:

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1999																
January	34.3	21.9	28.1	*	*	*	*	*	*	*	*	343.0	40.0	53.2	89.0	3.4
February	33.9	22.0	27.9	*	*	*	*	*	*	*	*	320.0	39.0	72.0	106.0	3.7
March	34.0	22.0	28.0	*	*	*	*	*	*	*	*	259.0	83.0	55.5	85.0	3.5
April	33.1	21.5	27.3	*	*	*	*	*	*	*	*	149.0	41.0	60.0	97.0	4.1
May	30.0	20.0	25.0	*	*	*	*	*	*	*	*	83.0	26.0	63.8	205.0	4.8
June	31.4	19.9	25.7	*	*	*	*	*	*	*	*	12.0	12.0	108.8	216.0	*
July	29.2	18.3	23.8	*	*	*	*	*	*	*	*	5.0	5.0	92.3	203.0	*
August	30.0	18.9	24.5	*	*	*	*	*	*	*	*	0.0	0.0	230.3	762.0	*
September	31.3	19.7	25.5	*	*	*	*	*	*	*	*	0.0	0.0	223.4	539.0	*
October	32.9	21.5	27.2	*	*	*	*	*	*	*	*	115.0	47.0	220.4	793.0	*
November	33.1	20.6	26.9	*	*	*	*	*	*	*	*	154.0	45.0	127.8	209.0	*
December	33.5	20.0	26.7	*	*	*	*	*	*	*	*	350.0	85.0	114.5	223.0	*

### Monthly Meteorological Data at Baturetino

Observatory Name : Baturetino

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2000																
January	32.9	20.0	26.4	*	*	*	*	*	*	*	*	179.0	56.0	90.9	171.0	*
February	33.9	20.0	26.9	*	*	*	*	*	*	*	*	415.0	58.0	78.4	164.0	*
March	33.7	21.1	27.4	*	*	*	*	*	*	*	*	280.0	53.0	99.2	173.0	*
April	33.0	23.0	28.0	*	*	*	*	*	*	*	*	137.0	28.0	95.8	128.0	*
May	33.1	20.5	26.8	*	*	*	*	*	*	*	*	64.0	30.0	94.2	159.0	*
June	31.0	19.1	25.1	*	*	*	*	*	*	*	*	56.0	27.0	131.2	186.0	*
July	30.7	18.0	24.4	*	*	*	*	*	*	*	*	0.0	0.0	129.0	188.0	*
August	31.0	18.7	24.8	*	*	*	*	*	*	*	*	0.0	0.0	159.6	258.0	*
September	32.9	20.4	25.8	*	*	*	*	*	*	*	*	0.0	0.0	133.3	230.0	*
October	33.8	21.0	27.4	*	*	*	*	*	*	*	*	65.0	26.0	183.6	292.0	*
November	34.0	21.0	27.5	*	*	*	*	*	*	*	*	*	*	176.1	274.0	3.2
December	34.0	21.0	27.5	*	*	*	*	*	*	*	*	63.0	14.0	140.0	193.0	*

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2001																
January	34.0	21.0	27.5	*	*	*	*	*	*	*	*	253.0	45.0	165.3	347.0	*
February	34.0	21.0	27.5	*	*	*	*	*	*	*	*	246.0	59.0	138.5	194.0	*
March	34.0	21.0	27.5	*	*	*	*	*	*	*	*	287.0	61.0	86.6	184.0	*
April	34.0	21.0	27.5	*	*	*	*	*	*	*	*	133.0	25.0	87.8	146.0	*
May	33.1	20.5	26.8	*	*	*	*	*	*	*	*	30.0	21.0	137.5	188.0	*
June	32.0	20.0	26.0	*	*	*	*	*	*	*	*	63.0	14.0	144.9	198.0	*
July	30.6	20.0	25.3	*	*	*	*	*	*	*	*	0.0	0.0	160.0	198.0	*
August	30.0	20.0	25.0	*	*	*	*	*	*	*	*	0.0	0.0	152.9	177.0	*
September	33.0	20.0	26.5	*	*	*	*	*	*	*	*	0.0	0.0	187.3	275.0	*
October	34.0	20.5	27.3	*	*	*	*	*	*	*	*	57.0	26.0	156.9	271.0	*
November	34.0	21.0	27.5	*	*	*	*	*	*	*	*	264.0	78.0	149.8	185.0	*
December	34.0	20.8	26.5	*	*	*	*	*	*	*	*	66.0	28.0	78.8	181.0	*

Note:

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2002																
January	34.0	21.0	27.5	*	*	*	*	*	*	*	*	179.0	75.0	109.1	150.0	*
February	34.0	20.0	27.0	*	*	*	*	*	*	*	*	579.0	71.0	73.3	102.0	*
March	34.0	20.0	27.0	*	*	*	*	*	*	*	*	256.0	48.0	67.9	80.0	*
April	34.0	20.0	27.0	*	*	*	*	*	*	*	*	284.0	48.0	84.7	141.0	*
May	32.8	19.7	26.3	*	*	*	*	*	*	*	*	44.0	20.0	84.0	130.0	*
June	30.2	18.7	23.6	*	*	*	*	*	*	*	*	0.0	0.0	91.9	164.0	*
July	30.2	17.0	23.6	*	*	*	*	*	*	*	*	6.0	6.0	108.1	184.0	*
August	30.3	17.0	22.9	*	*	*	*	*	*	*	*	0.0	0.0	153.5	197.0	4.5
September	30.2	17.0	23.6	*	*	*	*	*	*	*	*	0.0	0.0	179.5	266.0	6.2
October	31.8	17.0	24.4	*	*	*	*	*	*	*	*	0.0	0.0	157.3	221.0	6.2
November	33.9	18.0	26.0	*	*	*	*	*	*	*	*	42.0	19.0	181.8	263.0	5.8
December	34.0	18.2	26.1	*	*	*	*	*	*	*	*	289.0	26.0	170.6	455.0	5.2

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2003																
January	34.0	20.0	27.0	*	*	*	*	*	*	*	*	161.0	50.0	150.2	194.0	4.5
February	34.0	20.0	27.0	*	*	*	*	*	*	*	*	504.0	75.0	162.3	251.0	5.0
March	34.0	20.9	27.5	*	*	*	*	*	*	*	*	234.0	30.0	172.5	227.0	4.4
April	33.5	20.6	27.1	*	*	*	*	*	*	*	*	55.0	20.0	198.1	261.0	4.4
May	34.0	21.0	27.5	*	*	*	*	*	*	*	*	79.0	57.0	208.9	246.0	4.3
June	31.6	18.1	24.8	*	*	*	*	*	*	*	*	5.0	3.0	143.2	199.0	4.6
July	30.0	18.0	24.0	*	*	*	*	*	*	*	*	0.0	0.0	152.4	174.0	5.1
August	30.0	18.0	24.0	*	*	*	*	*	*	*	*	0.0	0.0	147.5	175.0	6.8
September	32.1	20.1	26.1	*	*	*	*	*	*	*	*	0.0	0.0	162.3	228.0	8.5
October	34.0	22.0	28.0	*	*	*	*	*	*	*	*	25.0	7.0	228.9	287.0	5.5
November	34.3	23.6	28.9	*	*	*	*	*	*	*	*	120.0	26.0	168.0	265.0	*
December	33.9	23.4	28.6	*	*	*	*	*	*	*	*	351.0	82.0	131.2	196.0	4.5

Note:



### Monthly Meteorological Data at Baturefno

Observatory Name : Baturefno

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2004																
January	34.0	23.2	28.6	*	*	*	*	*	*	*	*	235.0	57.0	81.4	175.0	5.0
February	34.1	22.1	28.1	*	*	*	*	*	*	*	*	245.0	94.0	74.8	149.0	3.0
March	33.9	22.6	28.2	*	*	*	*	*	*	*	*	151.0	23.0	72.7	125.0	3.4
April	34.5	21.9	28.2	*	*	*	*	*	*	*	*	26.0	10.0	103.8	161.0	4.1
May	35.0	22.0	28.5	*	*	*	*	*	*	*	*	63.0	31.0	95.6	181.0	4.1
June	30.6	18.3	24.4	*	*	*	*	*	*	*	*	31.0	20.0	78.4	105.0	4.9
July	30.0	18.0	24.0	*	*	*	*	*	*	*	*	12.0	8.0	102.0	151.0	4.5
August	30.0	18.0	24.0	*	*	*	*	*	*	*	*	0.0	0.0	173.4	236.0	5.8
September	33.4	20.6	27.0	*	*	*	*	*	*	*	*	0.0	0.0	213.7	290.0	7.2
October	34.8	22.6	28.7	*	*	*	*	*	*	*	*	0.0	0.0	203.0	282.0	7.1
November	35.1	23.9	29.5	*	*	*	*	*	*	*	*	117.0	21.0	154.9	274.0	5.6
December	34.5	23.0	28.7	*	*	*	*	*	*	*	*	391.0	100.0	100.1	139.0	3.8

Note:

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2005																
January	34.2	22.9	28.5	*	*	*	*	*	*	*	*	202.0	52.0	43.9	92.0	4.6
February	34.0	22.8	28.4	*	*	*	*	*	*	*	*	193.0	56.0	40.4	88.0	4.1
March	34.5	23.3	28.9	*	*	*	*	*	*	*	*	194.0	34.0	47.2	92.0	4.2
April	*	*	*	*	*	*	*	*	*	*	*	168.0	38.0	50.8	99.0	3.8
May	33.1	21.3	27.2	*	*	*	*	*	*	*	*	20.0	14.0	57.4	91.0	5.2
June	33.5	21.9	27.7	*	*	*	*	*	*	*	*	165.0	68.0	71.7	140.0	4.6
July	32.5	20.7	26.6	*	*	*	*	*	*	*	*	43.0	16.0	77.6	125.0	4.7
August	32.5	19.5	26.0	*	*	*	*	*	*	*	*	3.0	3.0	82.2	150.0	5.0
September	33.6	21.8	27.7	*	*	*	*	*	*	*	*	9.0	5.0	144.6	192.0	4.9
October	34.7	23.5	29.1	*	*	*	*	*	*	*	*	48.0	25.0	187.4	297.0	6.2
November	35.0	23.8	29.4	*	*	*	*	*	*	*	*	20.0	16.0	189.6	293.0	5.8
December	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Note: \* = data is not collected yet

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2006																
January	35	22.0	28.9	153.0	50.0	95.1						316	46	*	*	2.6
February	35	20.0	28.9	29.5	26.0	28.9						29.2	55.0			3.4
March	35.0	21.0	29.0	6.0	95	45.5						0.0	0.0			4.0
April	35.0	21.0	28.3	106.0	13	41.5						179.0	27.0			3.8
May	35.0	20.0	28.3	82.0	12	34.6						123.0	29.0			3.8
June	35.0	16.0	26.2	151.0	15.0	86.2						0.0	0.0			4.4
July	37.0	15.0	24.8	198.0	67.0	105.1						0.0	0.0			5.2
August	32.0	15.0	24.1	305.0	112.0	182.2						0.0	0.0			5.6
September	35.0	15.0	25.3	261.0	110.0	198.1						0.0	0.0			6.6
October																
November																
December																

Note: \* = data is not collected yet

### Monthly Meteorological Data at Wonogiri Dam

Observatory Name : Wonogiri Dam

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
1990																
January	*	*	28.8	*	*	*	*	*	*	*	*	*	*	*	*	1.7
February	*	*	29.6	*	*	*	*	*	*	*	*	*	*	*	*	2.9
March	*	*	33.0	*	*	*	*	*	*	*	*	*	*	*	*	4.3
April	*	*	30.2	*	*	*	*	*	*	*	*	*	*	*	*	4.1
May	*	*	30.0	*	*	*	*	*	*	*	*	*	*	*	*	4.5
June	33.3	25.4	29.3	*	*	*	*	*	*	*	6.2	2.8	*	*	5.0	
July	33.3	25.0	29.2	*	*	*	*	*	*	*	*	*	*	*	*	6.3
August	34.5	25.3	29.7	*	*	*	*	*	*	*	*	*	*	*	*	6.9
September	35.4	25.9	30.7	*	*	*	*	*	*	*	*	*	*	*	*	7.7
October	36.7	26.2	31.5	*	*	*	*	*	*	*	*	*	*	*	*	7.7
November	36.7	27.1	31.9	*	*	*	*	*	*	*	*	*	*	*	*	3.6
December	34.3	25.6	30.0	*	*	*	*	*	*	*	*	*	*	*	*	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
1991																
January	32.5	25.5	29.0	*	*	*	*	*	*	*	410.0	68.2	24	*	*	2.6
February	32.2	25.2	28.7	*	*	*	*	*	*	*	495.4	73.8	26	*	*	2.2
March	34.3	25.4	29.8	*	*	*	*	*	*	*	185.4	55.8	10	*	*	4.9
April	33.4	26.1	29.8	*	*	*	*	*	*	*	178.2	40.5	12	*	*	3.7
May	34.1	25.3	29.7	*	*	*	*	*	*	*	103.5	53.4	4	*	*	5.4
June	34.3	24.0	29.1	*	*	*	*	*	*	*	0.0	0.0	0	*	*	5.7
July	33.7	23.7	28.7	*	*	*	*	*	*	*	0.0	0.0	0	*	*	6.1
August	34.1	24.1	29.1	*	*	*	*	*	*	*	0.0	0.0	0	*	*	7.3
September	35.0	24.6	29.8	*	*	*	*	*	*	*	0.0	0.0	0	*	*	8.3
October	35.9	26.1	31.0	*	*	*	*	*	*	*	7.1	7.1	1	*	*	8.6
November	34.9	26.4	30.6	*	*	*	*	*	*	*	111.4	28.3	9	*	*	5.8
December	35.4	25.6	30.5	*	*	*	*	*	*	*	212.2	107.0	15	*	*	4.3

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
1992																
January	*	*	29.6	*	*	*	*	*	*	*	*	*	*	*	*	*
February	33.1	25.1	29.1	*	*	*	*	*	*	*	*	*	*	*	*	*
March	34.5	25.1	29.8	*	*	*	*	*	*	*	*	*	*	*	*	3.8
April	34.2	25.5	29.8	*	*	*	*	*	*	*	*	*	*	*	*	*
May	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
June	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
July	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
August	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
September	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
October	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
November	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
December	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Note: \* = no data available

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
1999																
January	33.6	24.9	29.3	*	*	*	*	*	*	*	430.0	79.0	26	*	*	2.0
February	33.8	24.9	28.4	*	*	*	*	*	*	*	327.0	74.0	22	*	*	2.4
March	34.2	25.4	29.8	*	*	*	*	*	*	*	363.1	52.5	22	*	*	2.5
April	33.8	24.1	29.0	*	*	*	*	*	*	*	209.5	51.5	12	*	*	3.5
May	34.3	24.1	29.2	*	*	*	*	*	*	*	126.0	65.5	7	*	*	4.0
June	34.3	24.1	29.2	*	*	*	*	*	*	*	29.0	18.0	6	*	*	5.7
July	34.4	23.6	29.0	*	*	*	*	*	*	*	0.0	0.0	0	*	*	6.5
August	35.3	23.7	29.5	*	*	*	*	*	*	*	0.0	0.0	0	*	*	7.8
September	36.9	24.6	30.8	*	*	*	*	*	*	*	0.0	0.0	0	*	*	9.1
October	36.6	25.3	31.0	*	*	*	*	*	*	*	119.0	38.5	14	*	*	6.0
November	34.7	25.2	30.0	*	*	*	*	*	*	*	198.3	39.5	17	*	*	3.6
December	33.6	25.2	29.4	*	*	*	*	*	*	*	325.8	72.0	23	*	*	3.0

### Monthly Meteorological Data at Wonogiri Dam

Observatory Name : Wonogiri Dam

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
2000																
January	33.9	25.0	29.4	*	*	*	*	*	*	*	243.7	56.0	*	*	3.0	
February	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
March	33.6	24.9	29.3	*	*	29.3	*	*	*	*	416.8	113.0	*	*	2.9	
April	33.9	25.0	29.5	*	*	29.5	*	*	*	*	413.6	143.5	*	*	3.0	
May	33.7	25.6	29.7	*	*	29.7	*	*	*	*	92.5	52.0	*	*	4.2	
June	31.7	24.3	28.0	*	*	28.0	*	*	*	*	29.5	23.0	*	*	4.1	
July	31.7	23.6	27.7	*	*	27.7	*	*	*	*	0.0	0.0	*	*	5.7	
August	31.1	24.5	27.8	*	*	27.8	*	*	*	*	22.5	20.0	*	*	6.3	
September	34.0	26.1	30.1	*	*	30.1	*	*	*	*	4.0	4.0	*	*	7.8	
October	33.1	26.3	29.7	*	*	29.7	*	*	*	*	143.5	42.0	*	*	5.7	
November	31.9	26.0	29.0	*	*	29.0	*	*	*	*	103.0	29.0	*	*	3.4	
December	32.8	24.9	28.9	*	*	28.9	*	*	*	*	209.8	51.5	*	*	3.9	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
2001																
January	31.8	25.4	28.6	*	*	28.6	*	*	*	*	339.2	70.0	*	*	2.4	
February	31.4	25.2	27.3	*	*	27.3	*	*	*	*	182.7	32.5	*	*	2.6	
March	32.0	25.2	28.6	*	*	28.6	*	*	*	*	406.1	69.0	*	*	2.2	
April	32.6	25.6	29.1	*	*	29.1	*	*	*	*	240.8	58.0	*	*	3.1	
May	33.0	25.3	29.1	*	*	29.1	*	*	*	*	164.5	85.0	*	*	4.2	
June	32.1	24.9	28.5	*	*	28.5	*	*	*	*	44.0	20.5	*	*	3.6	
July	32.2	24.5	28.4	*	*	28.4	*	*	*	*	19.0	16.0	*	*	4.5	
August	32.7	23.5	28.1	*	*	28.1	*	*	*	*	0.0	0.0	*	*	6.4	
September	34.8	26.2	30.5	*	*	30.5	*	*	*	*	0.0	0.0	*	*	7.3	
October	33.2	25.8	29.5	*	*	29.5	*	*	*	*	178.4	30.5	*	*	4.4	
November	32.2	26.0	29.1	*	*	29.1	*	*	*	*	178.0	53.0	*	*	4.7	
December	31.3	25.4	28.3	*	*	28.3	*	*	*	*	103.0	24.0	*	*	4.2	

Note: \* = no data available

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
2002																
January	32.5	25.5	29.0	*	*	29.0	*	*	*	*	566.5	151.0	*	*	3.6	
February	31.9	25.5	28.7	*	*	28.7	*	*	*	*	443.8	76.0	*	*	3.1	
March	32.9	25.7	29.3	*	*	29.3	*	*	*	*	184.5	37.5	*	*	3.8	
April	31.7	25.9	28.8	*	*	28.8	*	*	*	*	199.5	47.5	*	*	4.0	
May	33.4	25.1	29.3	*	*	29.3	*	*	*	*	10.0	7.5	*	*	5.3	
June	31.7	24.9	28.3	*	*	28.3	*	*	*	*	0.0	0.0	*	*	6.8	
July	31.5	24.8	28.1	*	*	28.1	*	*	*	*	0.0	0.0	*	*	7.6	
August	31.4	23.7	27.6	*	*	27.6	*	*	*	*	16.0	9.0	*	*	9.6	
September	32.4	24.8	28.6	*	*	28.6	*	*	*	*	0.0	0.0	*	*	10.8	
October	34.7	25.7	30.2	*	*	30.2	*	*	*	*	0.0	0.0	*	*	10.4	
November	34.2	26.4	30.3	*	*	30.3	*	*	*	*	88.5	36.0	*	*	7.7	
December	32.7	25.8	29.3	*	*	29.3	*	*	*	*	284.0	51.5	*	*	4.1	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
2003																
January	31.4	25.5	28.5	*	*	28.5	*	*	*	*	385.5	79.5	*	*	3.6	
February	30.9	25.6	28.3	*	*	28.3	*	*	*	*	449.0	57.5	*	*	2.4	
March	32.5	25.6	29.0	*	*	29.0	*	*	*	*	281.5	76.5	*	*	3.7	
April	33.4	26.5	29.9	*	*	29.9	*	*	*	*	90.5	54.0	*	*	5.6	
May	32.0	25.6	28.8	*	*	28.8	*	*	*	*	28.0	18.0	*	*	5.2	
June	32.8	24.1	28.5	*	*	28.5	*	*	*	*	0.0	0.0	*	*	6.2	
July	30.7	24.0	27.4	*	*	27.4	*	*	*	*	0.0	0.0	*	*	8.5	
August	31.9	23.3	27.6	*	*	27.6	*	*	*	*	0.0	0.0	*	*	9.1	
September	33.1	24.7	28.9	*	*	28.9	*	*	*	*	3.5	3.5	*	*	9.3	
October	33.3	25.8	29.6	*	*	29.6	*	*	*	*	34.6	16.5	*	*	8.4	
November	31.9	26.2	29.0	*	*	29.0	*	*	*	*	109.0	17.0	*	*	5.1	
December	30.7	25.7	28.2	*	*	28.2	*	*	*	*	345.0	87.5	*	*	2.8	

### Monthly Meteorological Data at Wonogiri Dam

Observatory Name : Wonogiri Dam

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Days of Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Rainfall	Mean	Max		
2004																		
January	32.2	25.6	28.9	*	*	*	*	*	*	*	*	309.3	85.0	21	*	*	2.8	
February	30.9	25.6	28.3	*	*	*	*	*	*	*	*	324.5	96.0	19	*	*	2.6	
March	31.5	25.8	28.7	*	*	*	*	*	*	*	*	336.5	93.5	17	*	*	3.0	
April	35.5	26.2	30.9	*	*	*	*	*	*	*	*	65.5	15.5	8	*	*	4.9	
May	32.6	25.9	29.3	*	*	*	*	*	*	*	*	19.0	8.5	4	*	*	5.7	
June	31.1	24.4	27.7	*	*	*	*	*	*	*	*	16.5	16.0	2	*	*	6.3	
July	31.7	24.3	28.0	*	*	*	*	*	*	*	*	57.5	55.5	2	*	*	5.6	
August	31.5	23.9	27.7	*	*	*	*	*	*	*	*	0.0	0.0	0	*	*	8.8	
September	32.3	25.1	28.7	*	*	*	*	*	*	*	*	7.0	6.0	2	*	*	9.3	
October	33.7	25.5	29.6	*	*	*	*	*	*	*	*	7.5	7.5	1	*	*	9.3	
November	33.8	26.1	30.0	*	*	*	*	*	*	*	*	235.5	51.0	16	*	*	5.3	
December	31.3	25.8	28.5	*	*	*	*	*	*	*	*	316.0	113.5	21	*	*	3.5	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Days of Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Rainfall	Mean	Max		
2005																		
January	31.4	25.1	28.2	*	*	*	*	*	*	*	*	259.5	54.0	17	*	*	3.0	
February	33.0	25.7	29.4	*	*	*	*	*	*	*	*	174.5	82.5	16	*	*	3.1	
March	32.8	25.9	29.4	*	*	*	*	*	*	*	*	346.0	87.0	17	*	*	3.6	
April	32.2	26.1	29.1	*	*	*	*	*	*	*	*	91.0	16.0	17	*	*	3.2	
May	33.5	25.1	29.3	*	*	*	*	*	*	*	*	5.5	3.0	3	*	*	4.5	
June	32.8	25.8	29.3	*	*	*	*	*	*	*	*	54.0	39.0	8	*	*	5.6	
July	31.6	25.3	28.5	*	*	*	*	*	*	*	*	33.0	20.5	3	*	*	6.9	
August	31.7	24.9	28.3	*	*	*	*	*	*	*	*	0.0	0.0	0	*	*	10.3	
September	33.6	25.8	29.7	*	*	*	*	*	*	*	*	151.5	71.5	6	*	*	9.5	
October	33.1	25.9	29.5	*	*	*	*	*	*	*	*	43.0	39.0	7	*	*	8.8	
November	33.7	26.5	30.1	*	*	*	*	*	*	*	*	49.0	15.0	9	*	*	11.0	
December	31.1	25.3	28.2	*	*	*	*	*	*	*	*	452.5	85.0	24	*	*	4.1	

Note: \* = no data available

### Monthly Meteorological Data at Colo

Observatory Name : Colo

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Total (mm)	Max	Mean	
1982																
January	*	*	27.2	*	*	72.7	*	*	*	*	*	*	*	*	*	2.2
February	*	*	27.4	*	*	71.0	*	*	*	*	*	*	*	*	*	2.6
March	*	*	27.3	*	*	64.7	*	*	*	*	*	*	*	*	*	3.5
April	*	*	27.9	*	*	59.2	*	*	*	*	*	*	*	*	*	4.0
May	*	*	28.4	*	*	42.5	*	*	*	*	*	*	*	*	*	*
June	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
July	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
August	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
September	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
October	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
November	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
December	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Total (mm)	Max	Mean	
1983																
January	*	*	28.6	*	*	81.0	*	*	*	*	*	364.0	82.0	0.1	19	2.7
February	*	*	28.8	*	*	78.2	*	*	*	*	*	338.0	81.0	0.1	14	3.0
March	*	*	28.6	*	*	78.4	*	*	*	*	*	118.0	62.0	0.0	12	2.8
April	*	*	29.0	*	*	77.7	*	*	*	*	*	219.0	75.0	0.1	12	3.5
May	*	*	28.4	*	*	80.4	*	*	*	*	*	296.0	103.0	0.0	16	3.3
June	*	*	28.3	*	*	76.4	*	*	*	*	*	10.0	7.0	0.1	2	4.8
July	*	*	27.3	*	*	74.0	*	*	*	*	*	10.0	7.0	0.1	2	4.8
August	*	*	29.4	*	*	52.6	*	*	*	*	*	0.0	0.0	0.1	0	7.7
September	*	*	28.2	*	*	53.8	*	*	*	*	*	0.0	0.0	0.2	0	7.6
October	*	*	29.6	*	*	45.0	*	*	*	*	*	104.0	31.0	0.1	10	6.1
November	*	*	28.8	*	*	42.7	*	*	*	*	*	207.0	53.0	0.1	17	3.8
December	*	*	29.0	*	*	42.1	*	*	*	*	*	226.0	90.0	0.1	11	4.0

Note: \* = no data is available

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Total (mm)	Max	Mean	
1984																
January	*	*	*	*	*	37.2	*	*	*	*	*	390.0	108.0	0.0	19	2.7
February	*	*	*	*	*	38.2	*	*	*	*	*	333.0	106.0	0.1	17	2.5
March	*	*	*	*	*	36.9	*	*	*	*	*	213.0	81.0	0.1	20	2.6
April	*	*	*	*	*	35.2	*	*	*	*	*	116.0	14.0	0.0	16	2.5
May	*	*	*	*	*	35.8	*	*	*	*	*	55.0	31.0	0.0	8	3.7
June	*	*	27.2	*	*	37.5	*	*	*	*	*	38.0	16.0	0.1	3	4.8
July	*	*	25.0	*	*	37.9	*	*	*	*	*	0.0	0.0	0.1	0	4.8
August	*	*	25.3	*	*	39.8	*	*	*	*	*	1.0	1.0	0.1	1	5.0
September	*	*	28.0	*	*	34.5	*	*	*	*	*	208.0	62.0	0.1	13	4.3
October	*	*	27.8	*	*	41.5	*	*	*	*	*	104.0	42.0	0.1	9	4.4
November	*	*	28.0	*	*	40.8	*	*	*	*	*	109.0	28.0	0.1	13	3.5
December	*	*	28.5	*	*	37.4	*	*	*	*	*	125.0	21.0	0.0	18	3.2

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Total (mm)	Max	Mean	
1985																
January	*	*	28.3	*	*	35.6	*	*	*	*	*	84.0	15.0	3.5	11	3.2
February	*	*	28.5	*	*	35.5	*	*	*	*	*	4.0	4.0	4.1	28	2.9
March	*	*	28.5	*	*	37.7	*	*	*	*	*	413.0	82.0	4.2	10	3.4
April	*	*	28.3	*	*	35.4	*	*	*	*	*	292.0	89.0	3.0	12	3.0
May	*	*	26.5	*	*	34.8	*	*	*	*	*	4.0	2.0	3.0	2	*
June	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
July	*	*	26.2	*	*	38.4	*	*	*	*	*	25.0	10.0	4.8	4	*
August	*	*	27.6	*	*	38.9	*	*	*	*	*	54.0	34.0	10.2	5	*
September	*	*	27.8	*	*	37.4	*	*	*	*	*	11.0	8.0	9.7	3	*
October	*	*	28.2	*	*	39.8	*	*	*	*	*	243.0	69.0	6.6	12	2.0
November	*	*	28.1	*	*	37.1	*	*	*	*	*	256.0	53.0	5.7	12	2.4
December	*	*	27.8	*	*	35.6	*	*	*	*	*	275.0	50.0	3.4	14	2.3

# Monthly Meteorological Data at Colo

Observatory Name : Colo

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Min	Total (mm)	Max	
1987																
January	*	*	25.0	*	*	50.5	*	*	*	*	*	341.0	87.0	22.8	16	3.0
February	*	*	25.2	*	*	50.7	*	*	*	*	*	252.0	49.0	25.5	13	2.6
March	*	*	25.8	*	*	49.3	*	*	*	*	*	108.0	42.0	22.2	10	4.2
April	*	*	26.6	*	*	46.9	*	*	*	*	*	39.0	14.0	22.8	5	5.9
May	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
June	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
July	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
August	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
September	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
October	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
November	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
December	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Min	Total (mm)	Max	
1999																
January	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
February	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
March	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
April	32.2	26.5	29.4	*	*	*	*	*	*	*	*	118.0	19.0	91.0	11	4.0
May	35.0	26.1	30.5	*	*	*	*	*	*	*	*	31.0	19.0	59.2	4	4.6
June	33.5	24.4	29.0	*	*	*	*	*	*	*	*	4.0	4.0	61.3	1	4.5
July	31.2	23.2	27.2	*	*	*	*	*	*	*	*	28.0	27.0	88.8	2	4.7
August	31.3	22.9	27.1	*	*	*	*	*	*	*	*	3.0	3.0	115.9	1	5.2
September	31.9	27.7	29.8	*	*	*	*	*	*	*	*	23.0	18.0	147.8	2	5.1
October	32.8	23.4	28.1	*	*	*	*	*	*	*	*	172.0	24.0	97.5	15	3.8
November	31.1	21.6	26.4	*	*	*	*	*	*	*	*	216.0	41.0	83.6	18	3.5
December	30.8	21.1	26.0	*	*	*	*	*	*	*	*	241.0	35.0	78.7	17	3.7

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Min	Total (mm)	Max	
2000																
January	30.8	22.3	26.5	*	*	*	*	*	*	*	*	242.0	27.0	83.9	19	3.7
February	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
March	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
April	31.4	23.6	27.5	*	*	*	*	*	*	*	*	333.0	59.0	69.7	13	3.7
May	31.6	23.2	27.4	*	*	*	*	*	*	*	*	126.0	34.0	76.9	7	4.3
June	31.7	23.5	27.6	*	*	*	*	*	*	*	*	6.0	6.0	75.7	1	5.0
July	27.6	23.3	25.5	*	*	*	*	*	*	*	*	4.0	4.0	67.9	1	5.2
August	31.4	23.8	27.6	*	*	*	*	*	*	*	*	10.0	10.0	84.5	1	5.1
September	31.9	23.1	27.5	*	*	*	*	*	*	*	*	30.0	20.0	96.4	2	5.0
October	31.7	23.5	27.6	*	*	*	*	*	*	*	*	233.0	46.0	119.2	14	3.9
November	30.4	23.0	26.7	*	*	*	*	*	*	*	*	160.0	67.0	80.9	15	3.6
December	31.7	23.1	27.4	*	*	*	*	*	*	*	*	235.0	70.0	89.9	7	4.1

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Max	Min	Total (mm)	Max	
2001																
January	31.0	23.0	27.0	*	*	*	*	*	*	*	*	258.0	36.0	78.3	18	3.5
February	31.1	23.0	27.0	*	*	*	*	*	*	*	*	212.0	40.0	74.5	16	5.0
March	31.9	23.4	27.6	*	*	*	*	*	*	*	*	281.0	63.0	58.3	20	5.1
April	31.3	23.3	27.3	*	*	*	*	*	*	*	*	166.0	73.0	69.1	8	6.2
May	31.6	23.3	27.5	*	*	*	*	*	*	*	*	36.0	12.0	75.3	5	4.7
June	31.5	23.6	27.5	*	*	*	*	*	*	*	*	28.0	22.0	88.8	3	4.8
July	31.0	23.1	27.0	*	*	*	*	*	*	*	*	52.0	36.0	137.9	2	5.1
August	31.4	22.6	27.0	*	*	*	*	*	*	*	*	11.0	8.0	121.1	2	5.7
September	31.9	23.5	27.7	*	*	*	*	*	*	*	*	10.0	5.0	133.0	2	5.4
October	31.7	23.9	27.8	*	*	*	*	*	*	*	*	204.0	52.0	93.7	15	4.0
November	31.6	23.6	27.6	*	*	*	*	*	*	*	*	233.0	56.0	75.6	12	4.4
December	31.5	23.4	27.4	*	*	*	*	*	*	*	*	67.0	12.0	93.4	13	3.9

Note: \* = no data is available

# Monthly Meteorological Data at Colo

Observatory Name : Colo

Elevation : meter (MSL)

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
2002																
January	31.4	23.4	27.4	*	*	*	*	*	*	*	475.0	85.0	71.1	*	3.5	
February	31.1	23.2	27.2	*	*	*	*	*	*	*	452.0	102.0	78.6	*	3.7	
March	31.4	23.4	27.4	*	*	*	*	*	*	*	159.0	18.0	67.2	*	4.0	
April	31.4	23.5	27.4	*	*	*	*	*	*	*	130.0	62.0	76.7	*	4.5	
May	31.7	23.5	27.6	*	*	*	*	*	*	*	24.0	24.0	77.0	*	5.0	
June	31.6	23.4	27.5	*	*	*	*	*	*	*	0.0	0.0	100.9	*	5.5	
July	32.0	23.3	27.6	*	*	*	*	*	*	*	0.0	0.0	118.7	*	5.6	
August	31.9	23.1	27.5	*	*	*	*	*	*	*	0.0	0.0	153.0	*	5.1	
September	31.9	23.0	27.5	*	*	*	*	*	*	*	16.0	7.0	115.2	*	4.9	
October	31.5	23.5	27.5	*	*	*	*	*	*	*	380.0	60.0	102.8	*	2.9	
November	31.6	23.4	27.5	*	*	*	*	*	*	*	147.0	33.0	119.0	*	3.9	
December	31.5	23.5	27.5	*	*	*	*	*	*	*	380.0	60.0	102.8	*	2.9	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
2003																
January	31.4	23.4	27.4	*	*	*	*	*	*	*	392.0	143.0	73.2	*	3.9	
February	31.0	23.0	27.0	*	*	*	*	*	*	*	399.0	49.0	51.8	*	3.2	
March	31.5	23.5	27.5	*	*	*	*	*	*	*	252.0	49.0	73.9	*	3.4	
April	31.5	23.5	27.5	*	*	*	*	*	*	*	62.0	48.0	69.8	*	4.5	
May	31.5	23.7	27.6	*	*	*	*	*	*	*	82.0	33.0	80.9	*	4.8	
June	31.4	23.4	27.4	*	*	*	*	*	*	*	0.0	0.0	86.8	*	5.3	
July	31.7	23.8	27.8	*	*	*	*	*	*	*	0.0	0.0	115.9	*	5.2	
August	31.7	23.7	27.7	*	*	*	*	*	*	*	0.0	0.0	117.5	*	5.0	
September	31.5	23.3	27.4	*	*	*	*	*	*	*	0.0	0.0	163.1	*	6.0	
October	31.6	23.6	27.6	*	*	*	*	*	*	*	142.0	76.0	166.2	*	5.2	
November	31.7	23.7	27.7	*	*	*	*	*	*	*	596.0	250.0	98.3	*	4.6	
December	31.6	23.6	27.6	*	*	*	*	*	*	*	479.0	60.0	97.0	*	3.8	

Note: \*

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
2004																
January	31.5	23.5	27.5	*	*	*	*	*	*	*	238.0	47.0	83.3	*	3.8	
February	31.5	23.6	27.6	*	*	*	*	*	*	*	298.0	96.0	83.7	*	3.9	
March	38.2	24.5	31.3	*	*	*	*	*	*	*	298.0	36.0	76.5	*	3.8	
April	39.9	21.6	30.7	*	*	*	*	*	*	*	50.0	20.0	66.2	*	5.3	
May	32.6	24.5	28.5	*	*	*	*	*	*	*	26.0	11.0	84.8	*	5.6	
June	32.0	23.7	27.9	*	*	*	*	*	*	*	0.0	0.0	102.4	*	6.0	
July	31.7	23.6	27.7	*	*	*	*	*	*	*	31.0	12.0	78.9	*	5.7	
August	31.9	23.5	27.7	*	*	*	*	*	*	*	0.0	0.0	141.4	*	6.4	
September	34.5	24.3	29.4	*	*	*	*	*	*	*	6.0	6.0	143.2	*	6.6	
October	31.5	23.4	27.4	*	*	*	*	*	*	*	48.0	15.0	143.6	*	6.2	
November	31.6	23.4	27.5	*	*	*	*	*	*	*	203.0	49.0	98.3	*	4.9	
December	31.7	23.5	27.6	*	*	*	*	*	*	*	382.0	70.0	75.5	*	4.0	

Note: \* = no data is available

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine Duration (hour)	Sunshine Rates (%)	Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean			Total (mm)	Max	Mean	Max	
2005																
January	31.7	23.4	27.5	*	*	*	*	*	*	*	235.0	97.0	89.6	*	5.1	
February	31.7	23.5	27.6	*	*	*	*	*	*	*	322.0	45.0	71.1	*	4.3	
March	31.6	23.4	27.5	*	*	*	*	*	*	*	421.0	57.0	61.3	*	4.0	
April	31.7	23.6	27.6	*	*	*	*	*	*	*	156.0	42.0	63.3	*	4.3	
May	31.7	23.6	27.7	*	*	*	*	*	*	*	35.0	31.0	45.9	*	4.5	
June	33.4	21.7	27.6	*	*	*	*	*	*	*	30.0	22.0	53.3	*	4.7	
July	37.2	18.9	28.0	*	*	*	*	*	*	*	46.0	17.0	90.9	*	5.5	
August	32.7	23.7	28.2	*	*	*	*	*	*	*	0.0	0.0	118.7	*	6.0	
September	32.2	23.7	27.9	*	*	*	*	*	*	*	107.0	46.0	118.8	*	5.4	
October	32.0	23.6	27.8	*	*	*	*	*	*	*	257.0	89.0	143.7	*	5.4	
November	31.7	23.6	27.6	*	*	*	*	*	*	*	134.0	28.0	131.3	*	5.9	
December	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

Note: \* = no data is available

### Monthly Meteorological Data at Surakarta (Pabelan)

Observatory Name : Pabelan Surakarta  
 S 7° 34' E 110° 45'

Elevation : 106 meter (MSL)  
 Velocity Observation : meter from GL

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1975																			
January	31.3	25.0	28.2	95.1	58.2	76.7	1008.0	1007.3	1008.0	*	*	403.0	71.0	6.1	2.1	2.1	6.1	1.9	
February	30.8	23.9	27.4	95.3	59.0	77.2	1007.3	1007.3	1007.3	*	*	377.0	73.0	2.0	2.6	2.6	7.3	1.6	
March	27.8	23.5	25.7	92.8	55.3	74.1	1006.9	1006.6	1006.9	*	*	384.0	106.0	4.1	2.5	2.5	4.1	1.9	
April	32.6	24.3	28.5	93.4	55.3	74.4	1006.6	1006.6	1006.6	*	*	241.0	50.0	4.1	2.6	2.6	4.1	1.9	
May	32.1	23.7	27.9	96.3	57.2	76.7	1007.1	1007.1	1007.1	*	*	331.0	90.0	4.1	2.8	2.8	4.1	1.9	
June	32.5	21.9	27.2	96.0	47.8	71.9	1008.2	1008.2	1008.2	*	*	11.0	7.0	2.4	2.5	2.5	4.1	2.4	
July	32.5	22.3	27.4	95.3	46.6	70.9	1008.7	1008.7	1008.7	*	*	70.0	28.0	4.6	2.1	2.1	4.6	2.3	
August	34.4	22.4	28.4	94.2	44.1	69.1	1008.6	1008.6	1008.6	*	*	67.0	51.0	5.1	3.0	3.0	5.1	2.7	
September	32.8	23.6	28.2	94.4	50.8	72.6	1008.0	1008.0	1008.0	*	*	300.0	105.0	4.1	2.7	2.7	4.6	2.0	
October	31.6	23.7	27.7	95.1	60.6	77.8	1007.4	1007.4	1007.4	*	*	323.0	55.0	5.2	2.8	2.8	5.2	2.7	
November	31.0	23.5	27.3	93.4	58.5	75.9	1008.1	1008.1	1008.1	*	*	71.0	22.0	4.6	3.1	3.1	4.6	2.5	
December	30.8	23.8	27.3	91.0	58.3	74.6	1006.2	1006.2	1006.2	*	*	294.0	48.0	5.1	2.3	2.3	5.1	2.3	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1976																			
January	30.5	23.1	26.8	90.93	57.66	74.3	1007.1	1007.1	1007.1	10	85	188.0	63.0	5.7	1.9	2.3	5.7	1.6	
February	31.3	23.4	27.4	92.9	55.8	74.4	1007.4	1007.4	1007.4	10	83	218.0	53.0	2.6	1.9	1.9	2.6	1.9	
March	31.1	23.4	27.3	94.3	55.1	74.7	1008.9	1008.9	1008.9	10	*	219.0	31.0	3.6	2.0	2.0	3.6	1.5	
April	32.9	23.9	28.4	95.3	47.8	71.5	1008.9	1008.9	1008.9	11	*	114.0	43.0	2.6	1.9	1.9	2.6	1.7	
May	33.5	24.1	28.8	97.8	46	71.9	1009.3	1009.3	1009.3	11	*	21.0	2.1	4.1	2.2	2.2	4.1	1.5	
June	33.0	23.4	28.2	94.9	45.0	70.0	1009.3	1009.3	1009.3	11	*	1.0	1.0	4.6	2.6	2.6	4.6	2.3	
July	32.6	22.6	27.6	94.8	39.5	67.2	1010.3	1010.3	1010.3	11	*	0.0	0.0	4.6	3.2	3.2	4.6	3.1	
August	33.5	23.3	28.4	94.4	41.9	68.1	1010.3	1010.3	1010.3	12	*	46.0	41.0	3.5	2.8	2.8	4.1	3.5	
September	34.2	24.8	29.5	94.5	48.8	71.7	1012.1	1012.1	1012.1	11	*	5.0	5.0	6.2	1	2.7	6.2	3.0	
October	34.2	24.8	29.5	94.5	48.8	71.7	1012.1	1012.1	1012.1	11	*	174.0	44.0	4.6	2.7	2.7	4.6	2.8	
November	33.1	24.9	29.1	90.4	55.2	72.8	1004.7	1004.7	1004.7	11	*	130.0	44.0	4.1	2.0	2.0	4.1	2.5	
December	33.1	25.0	29.1	94.9	58.3	76.6	1007.8	1007.8	1007.8	11	*	145.0	80.0	5.1	3.5	3.5	5.1	2.4	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1977																			
January	32.5	24.1	28.3	95.8	60.1	78.0	1006.9	1006.9	1006.9	12	96	201.0	45.0	3.1	1.7	1.7	3.1	2.0	
February	31.6	23.6	27.6	95.4	60.5	78.0	1007.2	1007.2	1007.2	11	91	289.0	48.0	1.9	1.5	1.5	3.1	1.9	
March	32.3	23.7	28.0	95.6	59	77.3	1008.6	1008.6	1008.6	11	*	393.0	67.0	2.1	1.5	1.5	2.1	1.7	
April	33.1	24.0	28.6	95.0	49.6	72.3	1008.1	1008.1	1008.1	11	*	301.0	154.0	2.1	1.5	1.5	2.1	2.0	
May	33.6	24.0	28.8	94.8	48.4	71.6	1007.4	1007.4	1007.4	11	*	34.0	22.0	2.1	1.5	1.5	2.1	1.8	
June	32.5	23.6	28.1	95.3	50.7	73.0	1008.7	1008.7	1008.7	10	*	261.0	60.0	2.1	1.6	1.6	2.1	2.4	
July	32.3	22.4	27.4	94.0	48.0	71.0	1009.1	1009.1	1009.1	11	*	2.0	2.0	4.1	2.0	2.0	4.1	2.3	
August	32.7	22.8	27.8	95.0	43.0	69.0	1010.2	1010.2	1010.2	11	*	22.0	21.0	6.7	2.8	2.8	4.1	2.6	
September	33.7	23.2	28.5	96.0	41.0	63.5	1010.7	1010.7	1010.7	11	*	11.0	11.0	4.1	3.2	3.2	6.7	2.1	
October	35.6	24.4	30.0	92.5	38.4	65.5	1010.9	1010.9	1010.9	12	*	72.0	23.0	3.1	2.7	2.7	4.1	2.9	
November	35.0	24.7	29.9	94.2	41.4	67.8	1009.5	1009.5	1009.5	10	*	233.0	77.0	2.1	2.2	2.2	3.1	2.7	
December	32.8	24.4	28.6	92.8	53.0	72.9	1009.1	1009.1	1009.1	11	*	2.0	2.0	2.1	1.7	1.7	2.1	2.3	

Note: Sunshine rates show the rate of sunshine hours

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1978																			
January	31.5	24.3	27.9	94.3	60.4	77.4	1008.1	1008.1	1008.1	10	86	283.1	90.0	2.6	1.6	1.6	2.6	1.5	
February	32.5	24.1	28.3	93.2	55.6	74.4	1009.4	1009.4	1009.4	11	88	504.1	158.0	1.7	1.3	1.3	2.1	1.3	
March	32.9	24.7	28.8	94.1	56.7	75.4	1007.9	1007.9	1007.9	11	*	150.8	29.6	3.1	1.6	1.6	3.1	1.5	
April	32.8	24.3	28.6	92.9	50.5	71.7	1008.5	1008.5	1008.5	11	*	171.3	33.8	3.1	1.4	1.4	3.1	1.7	
May	33.0	24.8	28.9	92.8	54.7	73.8	1006.8	1006.8	1006.8	11	*	171.3	15.1	3.1	1.6	1.6	3.1	1.5	
June	31.9	23.8	27.9	94.0	56.4	75.2	1007.5	1007.5	1007.5	10	*	294.3	77.5	3.1	1.6	1.6	3.1	2.3	
July	31.7	23.2	27.5	91.8	52.8	72.3	1007.7	1007.7	1007.7	11	*	138.3	40.7	3.1	1.6	1.6	3.1	3.0	
August	32.0	23.0	27.5	90.6	46.7	68.7	1008.8	1008.8	1008.8	11	*	189.2	82.0	4.1	2.0	2.0	4.1	3.5	
September	31.6	23.6	27.4	89.4	50.0	69.7	1009.4	1009.4	1009.4	11	*	168.2	63.7	4.1	2.4	2.4	4.1	3.9	
October	33.1	23.2	28.4	91.6	43.9	67.8	1008.4	1008.4	1008.4	11	*	180.8	75.5	4.1	1.9	1.9	4.1	4.1	
November	32.8	23.4	28.1	93.7	52.0	72.9	1009.1	1009.1	1009.1	10	*	237.1	81.2	4.1	1.9	1.9	5.1	3.3	
December	31.9	23.8	27.9	94.4	57.8	76.1	1008.2	1008.2	1008.2	10	*	326.0	66.0	2.1	1.5	1.5	2.6	2.5	



### Monthly Meteorological Data at Surakarta (Pabelan)

Observatory Name : Pabelan Surakarta

S 7° 34' E 110° 45'

Elevation : 106 meter (MSL)

Velocity Observation : meter from GL

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1979																
January	31.3	24.0	27.7	94.4	56.5	75.5	1009.0		1009.0	*	*	232.5	31.0	1.2	2.6	1.8
February	32.5	23.9	28.2	95.5	55.3	75.4	1009.8		1009.8	*	*	442.5	72.0	0.8	1.7	1.9
March	32.3	23.9	28.1	92.7	57.9	75.0	1007.7		1007.7	*	*	200.0	53.0	1.3	3.3	3.1
April	33.2	24.5	28.9	95.6	54.4	75.0	1007.3		1007.3	*	*	382.5	72.0	1.1	2.7	3.6
May	32.7	24.3	28.5	95.5	57.97	76.7	1008.4		1008.4	*	*	513.0	149.0	1.1	2.2	3.8
June	32.6	24.5	28.5	94.2	53.1	73.7	1009.0		1009.0	*	*	159.0	57.0	2.0	4.1	4.3
July	32.8	22.0	27.4	93.7	48.2	71.0	1011.0		1011.0	*	*	6.0	6.0	2.6	5.1	4.6
August	34.0	22.1	28.1	93.3	42.2	67.8	1010.1		1010.1	*	*	1.0	1.0	2.6	4.1	6.1
September	34.9	23.7	29.3	93.3	43.6	68.5	1009.9		1009.9	*	*	39.0	26.0	3.1	4.6	5.7
October	35.5	23.7	29.6	94.9	41.5	68.2	1010.8		1010.8	*	*	47.0	23.0	3.0	6.2	4.0
November	34.2	24.8	29.5	96.7	51.7	74.2	1008.3		1008.3	*	*	258.0	58.0	1.9	4.1	3.7
December	33.3	23.7	28.5	96.2	50.0	73.1	1009.4		1009.4	*	*	292.0	66.0	2.5	4.6	3.3

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1980																
January	31.5	23.9	27.7	97.4	58.6129	78.0	-		-	*	*	433.0	107.0	2.9	7.7	2.6
February	33.6	24.6	29.1	97.4	59.4	78.4				*	*	338.0	58.0	2.4	5.1	2.5
March	33.7	23.5	28.6	96.2	50.8	73.5	1009.4		1009.4	*	*	397.0	117.0	2.1	3.6	3.5
April	33.9	24.6	29.3	94.8	55.3	75.1	1008.7		1008.7	*	*	235.0	61.0	2.0	4.1	3.5
May	34.6	23.7	29.2	95.0	50.6	72.8	1009.5		1009.5	*	*	82.0	58.0	4.1	4.1	3.3
June	33.7	22.8	28.3	94.6	46.3	70.5	1009.9		1009.9	*	*	9.0	4.0	2.4	5.1	5.0
July	34.6	23.2	28.9	94.6	42.9	68.8	1010.4		1010.4	*	*	12.0	8.0	2.7	5.1	4.8
August	33.8	23.0	28.4	93.3	43.2	68.3	1012.5		1012.5	*	*	52.0	19.0	3.1	4.1	4.4
September	34.6	22.6	28.6	94.6	39.1	66.9	1011.4		1011.4	*	*	42.0	22.0	3.0	5.1	5.0
October	34.5	23.6	29.1	94.7	42.7	68.7	1010.1		1010.1	*	*	56.0	22.0	4.0	6.2	4.3
November	33.0	23.4	28.2	96.6	51.8	74.2	1009.3		1009.3	*	*	504.0	89.0	3.0	5.1	3.2
December	31.4	23.6	27.5	95.9	56.9	76.3	1008.1		1008.1	*	*	238.0	57.0	3.1	6.2	2.7

Note: Sunshine rates show the rate of sunshine hours.

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1981																
January	29.6	23.1	26.4	97.4	61	79.2	1008.7		1008.7	*	*	416.0	56.0	3.1	7.7	2.5
February	31.0	22.8	26.9	96.6	54.7	75.7	1008.6		1008.6	*	*	426.0	70.0	2.6	6.2	2.1
March	32.5	23.0	27.8	93.7	50.1	71.9	1010.4		1010.4	*	*	313.0	65.0	2.7	6.2	3.4
April	33.0	23.6	28.3	94.1	49.3	71.7	1009.2		1009.2	*	*	166.0	55.0	2.6	5.1	3.6
May	32.5	23.2	27.9	93.0	50.1	71.6	1008.4		1008.4	*	*	115.0	34.0	2.7	5.1	3.9
June	32.5	22.9	27.7	93.2	44.9	69.1	1009.7		1009.7	*	*	65.0	36.0	2.0	4.1	4.2
July	30.2	21.4	25.8	91.9	49.6	70.8	1009.2		1009.2	*	*	114.0	32.0	2.9	5.1	4.2
August	32.0	21.5	26.8	90.0	40.1	65.1	1010.6		1010.6	*	*	13.0	4.0	3.1	5.1	5.2
September	32.0	22.0	27.0	91.0	41.9	66.5	1010.1		1010.1	*	*	72.0	25.0	3.0	5.1	4.7
October	32.4	21.7	27.1	89.3	40.6	65.0	1010.3		1010.3	*	*	269.0	61.0	3.2	6.2	4.8
November	30.5	22.0	26.3	92.8	52.5	72.7	1008.5		1008.5	*	*	210.0	56.0	3.3	5.1	3.6
December	31.0	23.0	27.0	93.4	53.0	73.2	1009.4		1009.4	*	*	366.0	85.0	3.3	7.7	3.3

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1982																
January	30.5	23.0	26.8	93.1	57.1	75.1	1008.6		1008.6	*	*	522.0	191.0	2.2	5.5	2.2
February	31.0	23.0	27.0	93.9	53.9	73.9	1008.5		1008.5	*	*	600.0	94.0	3.0	7.7	2.6
March	31.1	23.0	27.1	94.0	52.3	73.1	1009.1		1009.1	*	*	387.0	73.0	2.7	5.1	3.5
April	32.7	23.2	28.0	93.5	49.3	71.4	1009.5		1009.5	*	*	338.0	74.0	2.2	5.1	3.9
May	33.2	22.0	27.6	92.4	41.7	67.1	1009.9		1009.9	*	*			2.4	4.1	4.0
June	32.6	21.6	27.1	91.8	40.8	66.3			*	*	93.0	59.0	2.4	3.6	4.8	
July	32.7	20.5	26.6	92.4	36.4	64.4	1011.2		1011.2	*	*	7.0	5.0	2.0	3.1	5.2
August	32.4	20.0	26.2	91.4	36.4	63.9	1011.9		1011.9	*	*	6.0	4.0	3.1	5.1	5.4
September	33.6	20.3	27.0	90.3	32.9	61.6	1012.2		1012.2	*	*			3.4	5.1	5.5
October	35.0	26.6	30.8	91.0	30.3	60.7			*	*	1.0	1.0	2.6	4.1	5.4	
November	35.5	23.6	29.6	90.9	34.9	62.9			*	*	152.0	45.0	2.1	3.6	4.9	
December	32.7	23.6	28.2	93.8	47.6	70.7			*	*	301.0	117.0	2.5	4.3	3.4	

### Monthly Meteorological Data at Surakarta (Pabelan)

Observatory Name : Pabelan Surakarta  
 S 7° 34' E 110° 45'

Elevation : 106 meter (MSL)  
 Velocity Observation : meter from GL

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	Mean	Max		
1983																			
January	32.0	23.3	27.7	93.1	53.6	73.4				*	*	243.0	34.0	2.0	2.0	3.4	1.8		
February	32.4	23.4	27.9	93.3	50.8	72.1				*	*	302.0	56.0	2.6	4.1	2.2	2.2		
March	33.4	24.0	28.7	92.8	47.6	70.2				*	*	179.0	78.0	2.3	5.1	3.1	3.1		
April	33.0	24.0	28.5	93.0	51.3	72.2				*	*	1009.0	82.0	2.9	5.1	3.5	3.5		
May	31.7	23.8	27.8	93.4	54.7	74.1				*	*	396.0	82.0	2.0	3.1	3.8	3.8		
June	32.5	22.7	27.6	92.3	45.8	69.1				*	*	17.0	11.0	2.2	4.1	4.6	4.6		
July	32.1	21.7	26.9	88.9	41.5	65.2				*	*			2.8	4.1	4.1	4.6		
August	32.0	21.0	26.5	92.5	49.7	71.1				*	*			3.9	6.2	5.4	5.4		
September	33.2	21.8	27.5	93.4	50.5	72.0				*	*			5.9	5.1	5.3	5.3		
October	33.3	23.5	28.4	93.9	45.0	69.5				*	*	229.0	38.0	3.5	6.2	5.5	5.5		
November	30.6	23.3	27.0	93.4	47.2	70.3				*	*	217.0	30.0	3.4	6.0	3.6	3.6		
December	29.5	21.6	25.6	93.8	49.3	71.6				*	*	400.0	112.0	3.0	5.0	3.3	3.3		

Note: Sunshine rates show the rate of sunshine hours.

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	Mean	Max		
1984																			
January	28.5	21.3	24.9	93	68	80.5				*	*	496.0	71.0	2.6	4.6	4.6	2.3		
February	28.2	21.1	24.7	94.0	67.0	80.5				*	*	460.0	67.0	2.1	5.1	5.1	2.5		
March	29.3	21.7	25.5	92.0	66	79.0				*	*	323.0	70.0	3.1	5.1	4.0	4.0		
April	31.1	23.2	27.2	91.0	64	77.5				*	*	265.0	46.0	2.6	4.1	4.2	4.2		
May	31.9	23.5	27.7	89.0	60	74.5				*	*	1008.5	42.0	2.9	4.1	4.0	4.0		
June	31.8	21.8	26.8	79.0	57.0	68.0				*	*	34.0	20.0	2.1	4.6	4.7	4.7		
July	30.6	21.7	26.2	88.0	54.0	71.0				*	*	49.0	20.0	2.6	4.1	4.5	4.5		
August	32.6	22.4	27.5	84.0	48.0	66.0				*	*	10.0	9.0	3.1	4.6	5.3	5.3		
September	31.1	22.6	26.9	88.0	59.0	73.5				*	*	192.0	83.0	2.9	4.1	4.8	4.8		
October	32.1	23.3	27.7	82.0	53.0	67.5				*	*	57.0	18.0	3.1	5.1	5.1	5.8		
November	32.3	23.0	27.6	85.0	55.0	70.0				*	*	110.0	37.0	3.1	5.1	5.0	5.0		
December	27.3	20.9	24.1	88.0	68.0	78.0				*	*	348.0	80.0	2.6	5.1	3.8	3.8		

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	Mean	Max		
1985																			
January	30.9	22.4	26.7	91	65	78.0				*	*	673.0	150.0	2.1	4.1	4.1	3.7		
February	27.4	20.9	24.2	90.0	66.0	78.0				*	*	336.0	66.0	2.1	4.1	4.1	3.5		
March	31.1	22.6	26.9	91.0	65	78.0				*	*	303.0	55.0	2.1	3.6	3.6	3.5		
April	30.4	22.6	26.5	91.0	63	77.0				*	*	152.0	29.0	1.5	3.1	3.1	4.3		
May	31.3	22.6	27.0	89.0	57	73.0				*	*	92.0	44.0	1.5	2.6	2.6	4.7		
June	30.5	21.7	26.1	88.0	59.0	73.5				*	*	88.0	38.0	2.6	4.1	4.1	4.3		
July	31.4	21.7	26.6	86.0	53.0	69.5				*	*	22.0	2.0	2.1	4.1	4.1	4.5		
August	31.9	22.0	27.0	84.0	48.0	66.0				*	*	52.0	15.0	2.6	5.1	5.1	5.1		
September	31.4	20.9	26.2	80.0	48.0	64.0				*	*	14.0	9.0	4.1	7.7	5.7	5.7		
October	30.2	20.7	25.5	82.0	50.0	66.0				*	*	282.0	132.0	3.1	4.1	4.1	4.9		
November	30.9	22.6	26.8	84.0	61.0	72.5				*	*	195.0	79.0	3.1	5.1	5.1	5.8		
December	31.0	22.6	26.8	88.0	67.0	77.5				*	*	122.2	30.2	3.1	4.1	4.1	4.3		

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	Mean	Max		
1986																			
January	29.7	22.8	26.3	93	72	82.5				*	*	322.0	69.0	2.1	5.1	5.1	3.1		
February	30.9	21.5	26.2	92.0	65.0	78.5				*	*	391.0	116.0	2.6	4.1	4.1	2.9		
March	31.2	22.8	27.0	93.0	66	79.5				*	*	402.0	77.0	2.6	4.1	4.1	3.7		
April	31.9	23.7	27.8	91.0	63	77.0				*	*	203.0	58.0	2.6	4.1	4.1	3.9		
May	32.9	23.0	28.0	89.0	56	72.5				*	*	110.0	49.0	2.6	4.1	4.1	4.7		
June	30.4	21.8	26.1	91.0	64.0	77.5				*	*	62.0	57.0	3.1	5.1	5.1	4.2		
July	29.3	21.6	25.5	87.0	55.0	71.0				*	*	153.0	116.0	3.1	5.1	5.1	4.3		
August	31.2	21.2	26.2	81.0	50.0	65.5				*	*	19.0	15.0	4.1	7.7	5.1	5.1		
September	33.1	22.6	27.9	84.0	53.0	68.5				*	*	163.0	70.0	3.1	4.6	4.6	5.4		
October	32.4	23.0	27.7	81.0	55.0	68.0				*	*	113.0	57.0	3.6	5.1	5.1	5.8		
November	31.6	22.8	27.2	84.0	61.0	72.5				*	*	285.0	92.0	3.1	5.1	5.1	4.4		
December	32.4	23.2	27.8	88.0	60.0	74.0				*	*	221.0	41.0	3.1	5.1	5.1	4.6		

Note: Sunshine rates show the rate of sunshine hours.

### Monthly Meteorological Data at Surakarta (Pabelan)

Observatory Name : Pabelan Surakarta  
 S 7° 34' E 110° 45'

Elevation : 106 meter (MSL)  
 Velocity Observation : meter from GL

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1987																			
January	30.4	22.5	26.5	90	71	80.5	1009.4		1009.4	*		529.0	71.0	23	2.6	2.6	5.1	2.6	
February	30.6	22.5	26.6	93.0	69.0	81.0	1010.4		1010.4	*		367.0	51.0	23	2.6	2.6	5.1	2.4	
March	33.0	23.3	28.1	84.0	62	73.0	1010.2		1010.2	*		359.0	85.0	13	3.1	3.1	8.7	3.7	
April	32.3	23.2	27.8	83.0	61	72.0	1010.1		1010.1	*		77.0	37.0	8	3.1	3.1	4.6	5.0	
May	33.2	23.2	28.2	88.0	56	72.0	1010.1		1010.1	*		39.0	3.1	5	3.1	3.1	5.1	3.1	
June	32.3	22.5	27.4	89.0	58.0	73.5	1010.2		1010.2	*		102.0	45.0	6	2.6	2.6	4.1	3.6	
July	32.3	22.0	27.1	87.0	51.0	69.0	1011.4		1011.4	*		15.1	9.5	6	3.1	3.1	4.6	4.2	
August	32.8	21.0	26.9	82.0	45.0	63.5	1011.5		1011.5	*				6	3.6	3.6	6.2	5.3	
September	33.4	21.9	27.7	79.0	41.0	60.0	1011.9		1011.9	*				4.1	4.1	4.1	6.2	6.1	
October	32.8	23.1	28.0	76.0	39.0	57.5	1011.0		1011.0	*				10	4.1	4.1	5.7	7.3	
November	32.4	23.8	28.1	83.0	51.0	67.0	1009.8		1009.8	*		132.9	61.0	10	4.1	4.1	6.2	5.5	
December	31.9	23.1	27.5	89.0	66.0	77.5	1009.3		1009.3	*		311.5	58.0	17	3.1	3.1	5.1	4.3	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1988																			
January	31.2	22.8	27.0	91	65	78.0	1008.4		1008.4	*		488.6	150.0	17	3.1	3.1	4.6	4.2	
February	32.2	23.5	27.9	92.0	66.0	79.0	1009.1		1009.1	*		268.5	112.0	13	3.6	3.6	5.1	3.7	
March	32.9	23.6	28.3	91.0	65	78.0	1007.0		1007.0	*		347.9	82.0	20	3.1	3.1	7.2	4.3	
April	32.6	23.2	27.9	90.0	62	76.0	1009.2		1009.2	*		146.0	53.7	7	3.1	3.1	4.1	4.6	
May	32.6	23.8	28.2	92.0	63	77.5	1008.9		1008.9	*		185.5	72.5	12	2.6	2.6	4.1	4.6	
June	32.4	22.0	27.2	88.7	58.0	73.4	1010.3		1010.3	*		115.2	61.5	7	2.6	2.6	3.6	4.2	
July	31.9	21.3	26.6	83.0	53.0	68.0	1010.3		1010.3	*		2.0	2.0	1	3.1	3.1	4.6	4.7	
August	32.6	22.5	27.6	82.0	50.0	66.0	1010.2		1010.2	*		5.5	3.5	2	3.6	3.6	5.5	5.5	
September	32.7	22.2	27.5	78.0	46.0	62.0	1009.7		1009.7	*		2.0	2.0	1	5.1	5.1	6.2	6.4	
October	33.3	23.1	28.2	81.0	55.0	68.0	1009.1		1009.1	*		170.9	55.0	13	4.1	4.1	6.2	5.8	
November	31.7	22.4	27.1	85.0	65.0	75.0	1008.4		1008.4	*		393.1	135.0	11	3.1	3.1	5.7	4.2	
December	31.3	22.1	26.7	88.0	64.0	76.0	1009.2		1009.2	*		273.0	60.0	15	2.9	2.9	4.6	3.6	

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1989																			
January	31.8	22.4	27.1	88	66	77.0	*	*	*	*	*	400.5	83.5	23	2.6	2.6	4.8	3.6	
February	29.3	22.4	25.9	85.0	66.0	75.5	*	*	*	*	*	408.0	127.0	21	3.1	3.1	4.6	3.3	
March	31.4	22.6	27.0	*	*	*	*	*	*	*	*	182.9	74.0	10	2.8	2.8	5.6	4.1	
April	32.4	22.4	27.4	85.0	64	74.5	*	*	*	*	*	155.0	42.0	8	2.9	2.9	4.0	5.6	
May	32.4	23.3	27.9	88.0	57	72.5	*	*	*	*	*	117.0	24.5	15	2.7	2.7	4.1	4.2	
June	31.8	22.5	27.2	89.0	65.0	77.0	*	*	*	*	*	77.4	22.0	8	2.8	2.8	4.4	3.7	
July	31.5	22.4	27.0	85.0	63.0	74.0	*	*	*	*	*	187.5	81.0	6	3.0	3.0	4.8	4.0	
August	31.5	21.8	26.7	87.0	65.0	76.0	*	*	*	*	*	111.9	87.0	6	3.8	3.8	6.7	4.9	
September	33.1	22.3	27.7	80.0	64.0	72.0	*	*	*	*	*			5	4.1	4.1	5.4	6.3	
October	32.6	22.8	27.7	84.0	62.0	73.0	*	*	*	*	*	83.0	32.0	5	3.8	3.8	5.6	5.8	
November	32.1	22.6	27.4	84.0	61.0	72.5	*	*	*	*	*	134.0	36.0	9	3.0	3.0	5.4	6.7	
December	32.5	23.0	27.8	85.0	63.0	74.0	*	*	*	*	*	177.5	47.0	8	3.1	3.1	4.8	5.0	

Note: Sunshine rates show the rate of sunshine hours.

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1990																			
January	30.8	22.6	26.7	87	64	75.5	*	*	*	*	*	544.3	78.0	25	2.5	2.5	4.9	3.5	
February	32.2	23.0	27.6	89.0	65.0	77.0	*	*	*	*	*	225.0	57.5	15	2.8	2.8	4.8	3.9	
March	31.4	22.7	27.1	87.0	75	81.0	*	*	*	*	*	29.0	27.5	10	3.0	3.0	7.1	3.7	
April	32.7	23.5	28.1	87.0	66	76.5	*	*	*	*	*	11.5	5.0	3	2.9	2.9	4.3	4.6	
May	32.6	23.5	28.1	87.2	64	75.6	*	*	*	*	*	55.0	29.0	5	2.7	2.7	4.2	4.7	
June	32.1	22.8	27.5	87.0	65.0	76.0	*	*	*	*	*	5.0	3.0	2	3.0	3.0	4.7	4.6	
July	31.8	21.2	26.5	84.0	65.0	74.5	*	*	*	*	*	5.5	3.5	2	3.7	3.7	6.4	5.4	
August	31.6	22.1	26.9	81.0	66.0	73.5	*	*	*	*	*	26.2	6.5	3	4.0	4.0	5.8	6.7	
September	32.7	22.2	27.5	80.0	61.0	70.5	*	*	*	*	*	150.3	34.5	4	3.9	3.9	5.6	6.5	
October	34.1	23.0	28.6	82.0	61.0	71.5	*	*	*	*	*	436.9	105.0	26	3.0	3.0	4.9	3.2	
November	33.3	23.3	28.3	85.0	65.0	75.0	*	*	*	*	*			9	3.5	3.5	5.8	5.8	
December	31.4	22.9	27.2	86.0	70.0	78.0	*	*	*	*	*			26	3.0	3.0	4.9	3.2	

### Monthly Meteorological Data at Surakarta (Pabelan)

Observatory Name : Pabelan Surakarta

S 7° 34' E 110° 45'

Elevation : 106 meter (MSL)

Velocity Observation : meter from GL

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1991																			
January	30.8	22.7	26.8	86	70	78.0	*	*	*	*	*	*	*	*	576.9	98.0	2.8	4.7	3.8
February	30.1	22.7	26.4	86.0	75.0	80.5	*	*	*	*	*	*	*	*	434.0	85.0	3.3	4.8	3.0
March	32.2	23.2	27.7	86.0	50	68.0	*	*	*	*	*	*	*	*	187.0	53.5	1.5	3.6	5.2
April	31.5	23.3	27.4	86.5	67.5	77.0	*	*	*	*	*	*	*	*	240.0	115.0	1.1	2.2	3.9
May	22.4	32.3	27.4	86.0	67	76.5	*	*	*	*	*	*	*	*	58.0	37.0	0.8	3.2	4.4
June	32.1	21.7	26.9	85.0	65.0	74.0	*	*	*	*	*	*	*	*	18.0	14.5	1.2	2.5	5.0
July	31.8	21.1	26.5	85.0	63.0	74.0	*	*	*	*	*	*	*	*	18.0	14.5	1.5	3.1	5.3
August	31.3	20.0	25.7	85.0	68.0	76.5	*	*	*	*	*	*	*	*			2.2	3.5	5.5
September	32.0	21.8	26.9	80.0	72.5	75.0	*	*	*	*	*	*	*	*			2.4	3.5	6.3
October	34.0	22.7	28.4	80.0	52.0	66.0	*	*	*	*	*	*	*	*	29.0	19.0	3	6.0	6.0
November	32.3	23.1	27.7	85.0	65.0	75.0	*	*	*	*	*	*	*	*	154.3	106.0	1.9	3.7	4.6
December	31.6	22.6	27.1	86.0	66.0	76.0	*	*	*	*	*	*	*	*	280.2	46.0	0.9	1.9	3.2

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1992																			
January	31.0	22.4	26.7	86	75	80.5	*	*	*	*	*	*	*	*	251.7	66.0	2.7	4.6	2.7
February	30.5	22.5	26.5	86.0	75.0	80.5	*	*	*	*	*	*	*	*	242.0	54.0	3.2	3.6	2.4
March	30.8	23.0	26.9	86.0	73	79.5	*	*	*	*	*	*	*	*	321.4	53.0	2.1	4.1	2.2
April	31.6	23.2	27.4	85.0	61	73.0	*	*	*	*	*	*	*	*	236.5	41.0	2.0	3.9	2.5
May	32.2	23.5	27.9	85.0	75	80.0	*	*	*	*	*	*	*	*	190.3	72.0	1.7	3.6	2.3
June	30.5	22.4	26.5	86.0	68.0	77.0	*	*	*	*	*	*	*	*	122.9	75.5	2.0	3.9	2.8
July	31.8	21.7	26.8	85.0	64.0	74.5	*	*	*	*	*	*	*	*	40.5	24.0	2.2	4.0	4.1
August	31.1	22.0	26.6	85.0	65.0	75.0	*	*	*	*	*	*	*	*	129.7	44.0	3.0	5.1	4.1
September	31.0	22.9	27.0	85.0	65.0	75.0	*	*	*	*	*	*	*	*	58.4	27.0	3.2	4.4	3.7
October	31.5	22.2	26.9	84.0	65.0	74.5	*	*	*	*	*	*	*	*	160.5	36.0	3.1	4.7	2.7
November	31.4	22.2	27.2	84.0	60.0	72.0	*	*	*	*	*	*	*	*	246.2	44.9	2.5	4.5	2.4
December	31.4	22.6	27.0	84.0	65.0	74.5	*	*	*	*	*	*	*	*	131.6	31.5	2.0	3.4	2.8

Note: Sunshine rates show the rate of sunshine hours.

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1993																			
January	31.4	22.8	27.1	85	66	75.5	*	*	*	*	*	*	*	*	460.5	62.5	2.6	4.7	2.1
February	31.0	22.0	26.5	85.0	65.0	75.0	*	*	*	*	*	*	*	*	131.0	42.2	3.0	4.2	2.8
March	31.6	22.7	27.2	85.0	65	75.0	*	*	*	*	*	*	*	*	351.0	72.5	2.1	2.8	2.8
April	31.5	23.2	27.4	85.0	65	75.0	*	*	*	*	*	*	*	*	271.2	38.0	2.5	4.1	2.8
May	32.3	23.2	27.8	84.0	65	74.5	*	*	*	*	*	*	*	*	146.3	68.0	2.3	4.2	3.7
June	31.4	23.2	27.3	85.0	60.0	72.5	*	*	*	*	*	*	*	*	131.0	40.5	2.3	4.1	3.3
July	34.7	20.8	27.7	83.0	62.0	72.5	*	*	*	*	*	*	*	*	2.0	1.0	2.6	4.4	3.8
August	32.5	22.3	27.4	77.0	60.0	68.5	*	*	*	*	*	*	*	*	10.0	10.0	3.3	5.7	4.8
September	33.9	21.4	27.6	74.0	60.0	67.0	*	*	*	*	*	*	*	*	10.0	10.0	3.6	5.1	5.5
October	34.4	23.2	28.8	70.0	55.0	62.5	*	*	*	*	*	*	*	*	27.7	15.0	3.5	5.2	5.8
November	33.5	23.5	28.5	81.0	50.0	65.5	*	*	*	*	*	*	*	*	272.5	44.0	3.0	5.2	3.2
December	31.4	23.2	27.3	85.0	60.0	72.5	*	*	*	*	*	*	*	*	260.0	65.0	2.5	4.1	3.9

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine			Rainfall			Wind Velocity (m/s)			Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1994																			
January	30.5	22.6	26.6	85	65	75.0	*	*	*	*	*	*	*	*	396.5	70.0	0.9	1.3	2.4
February	31.1	20.4	25.8	85.0	65.0	75.0	*	*	*	*	*	*	*	*	385.0	90.0	0.8	1.3	2.5
March	30.5	22.6	26.6	85.0	60	72.5	*	*	*	*	*	*	*	*	884.1	111.0	0.7	1.4	3.3
April	31.7	23.2	27.5	80.0	60	70.0	*	*	*	*	*	*	*	*	245.5	60.0	0.8	1.3	3.7
May	31.1	22.0	26.6	85.0	60	72.5	*	*	*	*	*	*	*	*	111.5	55.5	1.1	1.9	4.3
June	31.4	21.0	26.2	83.0	52.0	67.5	*	*	*	*	*	*	*	*			2.1	3.1	3.4
July	30.3	20.1	25.2	78.0	60.0	69.0	*	*	*	*	*	*	*	*			2.6	6.9	2.7
August	32.0	19.9	26.0	80.0	60.0	70.0	*	*	*	*	*	*	*	*			2.9	4.4	3.0
September	33.2	21.1	27.2	75.0	60.0	67.5	*	*	*	*	*	*	*	*			3.9	6.9	4.9
October	34.1	22.5	28.3	85.0	60.0	72.5	*	*	*	*	*	*	*	*	44.5	33.0	4.1	5.6	5.1
November	33.0	23.4	28.2	85.0	72.0	78.5	*	*	*	*	*	*	*	*	316.5	66.0	2.2	4.1	3.5
December	31.5	23.0	27.3	85.0	70.0	77.5	*	*	*	*	*	*	*	*	256.5	88.0	1.6	2.4	3.8

### Monthly Meteorological Data at Surakarta (Pabelan)

Observatory Name : Pabelan Surakarta

S 7° 34' E 110° 45'

Elevation : 106 meter (MSL)  
Velocity Observation : meter from GL

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1995																
January	30.6	23.0	26.8	85	71	78.0	*	*	*	*	*	447.0	66.0	1.0	2.0	2.6
February	30.4	22.6	26.5	85.0	80.0	82.5	*	*	*	*	*	533.0	84.0	0.9	1.4	3.2
March	31.3	23.1	27.2	85.0	75	80.0	*	*	*	*	*	374.5	80.0	0.8	1.5	3.3
April	32.3	23.3	27.8	85.0	70	77.5	*	*	*	*	*	140.0	46.5	1.4	1.4	3.7
May	32.3	23.5	27.9	85.0	62	73.5	*	*	*	*	*	308.5	149.0	1.6	11.1	3.5
June	32.3	23.4	27.9	84.0	70.0	77.0	*	*	*	*	*	110.0	60.0	1.0	1.9	3.0
July	31.9	22.7	27.3	85.0	70.0	77.5	*	*	*	*	*	47.0	18.5	1.4	2.5	3.2
August	31.7	21.5	26.6	80.0	60.0	70.0	*	*	*	*	*	11.0	11.0	2.4	3.3	4.4
September	33.7	22.3	28.0	80.0	65.0	72.5	*	*	*	*	*	24.5	2.5	2.8	3.7	4.2
October	34.1	23.3	28.7	85.0	64.0	74.5	*	*	*	*	*	192.5	40.0	2.0	7.2	2.8
November	32.4	23.2	27.8	85.0	65.0	75.0	*	*	*	*	*	265.5	58.0	1.6	3.4	2.1
December	31.0	22.6	26.8	85.0	60.0	72.5	*	*	*	*	*	122.5	25.0	1.1	2.3	2.5

Note: Sunshine rates show the rate of sunshine hours.

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1996																
January	31.1	22.1	26.6	85	65	75.0	*	*	*	*	*	312.0	69.0	0.9	1.5	2.0
February	30.3	22.2	26.3	85.0	75.0	80.0	*	*	*	*	*	368.0	68.0	0.8	1.9	2.2
March	31.7	22.6	27.2	84.0	75	79.5	*	*	*	*	*	404.0	112.0	0.8	1.2	2.2
April	32.8	22.9	27.9	85.0	65	75.0	*	*	*	*	*	152.5	30.0	0.8	1.3	3.1
May	32.5	22.5	27.5	85.0	65	75.0	*	*	*	*	*	98.0	62.5	3	1.6	3.6
June	32.3	22.4	27.4	85.0	70.0	77.5	*	*	*	*	*	63.5	34.0	3	1.0	1.9
July	32.5	22.1	27.3	80.0	60.0	70.0	*	*	*	*	*	172.0	56.5	1.5	2.2	3.3
August	32.2	22.0	27.1	85.0	60.0	72.5	*	*	*	*	*	24.0	22.5	3.4	3.0	2.4
September	32.7	22.1	27.4	85.0	47.0	66.0	*	*	*	*	*	166.5	51.5	2.3	3.5	2.2
October	33.4	23.1	28.3	85.0	65.0	75.0	*	*	*	*	*	286.0	53.0	1.6	3.0	2.0
November	32.5	22.5	27.5	85.0	70.0	77.5	*	*	*	*	*	200.5	62.0	1.2	2.5	2.1
December	31.4	22.2	26.8	85.0	70.0	77.5	*	*	*	*	*	187.5	136.0	1.7	2.7	2.0

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1997																
January	31.0	21.8	26.4	85	70	77.5	*	*	*	*	*	232.0	80.0	1.1	2.0	2.5
February	30.8	22.1	26.5	85.0	80.0	82.5	*	*	*	*	*	333.0	112.0	0.7	2.1	1.8
March	32.4	22.3	27.4	82.0	75	78.5	*	*	*	*	*	126.0	76.0	0.9	1.4	2.8
April	33.0	22.9	28.0	85.0	75	80.0	*	*	*	*	*	27.5	6.0	0.6	0.9	3.2
May	33.0	22.7	27.9	85.0	75	80.0	*	*	*	*	*	61.0	30.0	0.7	1.3	3.0
June	32.9	22.0	27.5	83.0	70.0	76.5	*	*	*	*	*	17.0	17.0	0.9	1.5	3.6
July	31.7	21.0	26.4	80.0	65.0	72.5	*	*	*	*	*	11.5	11.5	1.8	3.3	4.0
August	33.1	20.3	26.7	80.0	60.0	70.0	*	*	*	*	*	3.0	2.0	3.7	10.1	4.4
September	35.0	20.7	27.9	80.0	60.0	70.0	*	*	*	*	*	3.0	2.0	3.6	4.7	5.3
October	35.5	22.0	28.8	70.0	60.0	65.0	*	*	*	*	*	193.0	85.0	4.7	11.3	5.4
November	36.2	23.2	29.7	85.0	60.0	72.5	*	*	*	*	*	187.5	136.0	3.9	10.7	4.6
December	33.6	23.0	28.3	85.0	70.0	77.5	*	*	*	*	*	187.5	136.0	1.7	2.7	2.0

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1998																
January	33.5	23.4	28.5	85	70	77.5	*	*	*	*	*	433.0	95.0	1.5	2.5	2.6
February	33.2	23.7	28.5	85.0	80.0	82.5	*	*	*	*	*	358.5	69.0	0.8	1.5	2.2
March	33.0	23.6	28.3	85.0	75	80.0	*	*	*	*	*	282.5	48.0	0.7	1.4	2.8
April	33.5	23.7	28.6	85.0	78	81.5	*	*	*	*	*	438.5	85.0	0.7	1.4	3.5
May	33.5	23.6	28.6	85.0	70	77.5	*	*	*	*	*	101.5	46.0	0.7	1.2	4.1
June	33.0	23.6	28.3	85.0	70.0	77.5	*	*	*	*	*	210.5	54.0	0.6	1.2	3.6
July	32.0	22.9	27.5	85.0	78.0	81.5	*	*	*	*	*	225.0	50.0	0.6	0.7	3.6
August	33.0	22.5	27.8	80.0	65.0	72.5	*	*	*	*	*	26.5	16.0	1.2	2.2	5.3
September	34.0	20.8	27.4	85.0	65.0	75.0	*	*	*	*	*	42.0	36.0	2.7	4.0	5.1
October	32.7	23.4	28.1	85.0	65.0	75.0	*	*	*	*	*	246.5	55.0	1.9	2.9	2.5
November	31.6	23.1	27.4	85.0	70.0	77.5	*	*	*	*	*	181.5	85.0	1.2	1.8	2.2
December	31.5	22.6	27.1	85.0	70.0	77.5	*	*	*	*	*	407.5	68.0	1.4	2.1	1.9

Note: Sunshine rates show the rate of sunshine hours.

### Monthly Meteorological Data at Surakarta (Pabelan)

Observatory Name : Pabelan Surakarta  
 S 7° 34' E 110° 45'

Elevation : 106 meter (MSL)  
 Velocity Observation : meter from GL

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
1999																
January	31.3	22.4	26.9	85	75	80.0	*	*	*	*	*	336.0	52.0	0.7	1.2	1.1
February	30.7	22.3	26.5	86.0	75.0	80.5	*	*	*	*	*	250.0	70.0	1.0	1.5	1.7
March	31.1	22.1	26.6	88.0	60	74.0	*	*	*	*	*	6.0	6.0	0.8	1.2	2.1
April	31.7	22.7	27.2	85.0	65	75.0	*	*	*	*	*	169.0	51.0	0.8	1.3	3.1
May	32.2	22.4	27.3	85.0	60	72.5	*	*	*	*	*	130.0	58.0	0.9	2.8	3.5
June	32.6	22.2	27.4	82.0	65.0	73.5	*	*	*	*	*	29.0	25.5	2	3.0	3.5
July	31.8	20.8	26.3	85.0	65.0	75.0	*	*	*	*	*	34.0	25.0	1.3	2.8	3.6
August	33.3	21.0	27.2	70.0	65.0	67.5	*	*	*	*	*	18.0	17.0	3.2	10.6	3.9
September	34.2	22.4	28.3	85.0	60.0	72.5	*	*	*	*	*	21.0	21.0	3.1	7.5	4.3
October	33.5	23.0	28.3	82.0	55.0	68.5	*	*	*	*	*	178.0	51.0	2.9	5.5	2.9
November	31.7	22.7	27.2	85.0	70.0	77.5	*	*	*	*	*	120.5	23.0	1.8	2.9	1.9
December	31.0	22.8	26.9	85.0	62.0	73.5	*	*	*	*	*	274.0	90.0	1.6	3.1	2.0

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2000																
January	33.0	21.0	27.0	82	67	74.5	*	*	*	*	*	207.0	50.0	14	*	2.3
February	33.0	21.0	27.0	85.0	70.0	77.5	*	*	*	*	*	335.5	50.0	15	*	2.3
March	33.0	21.0	27.0	85.0	75	80.0	*	*	*	*	*	406.5	80.0	17	*	1.6
April	34.0	21.0	27.5	84.0	65	74.5	*	*	*	*	*	139.0	29.0	10	*	1.9
May	34.0	21.0	27.5	85.0	65	75.0	*	*	*	*	*	63.0	33.0	2	*	1.5
June	33.0	20.0	26.5	75.0	65.0	70.0	*	*	*	*	*	18.0	15.0	2	*	2.3
July	34.0	21.0	27.5	72.0	65.0	68.5	*	*	*	*	*	7.0	7.0	1	*	2.9
August	34.0	20.0	27.0	75.0	65.0	70.0	*	*	*	*	*	*	*	*	*	3.8
September	36.0	22.0	29.0	60.0	60.0	67.5	*	*	*	*	*	22.0	12.0	2	*	3.0
October	35.0	21.0	28.0	80.0	60.0	70.0	*	*	*	*	*	150.0	43.0	12	*	3.0
November	36.0	22.0	29.0	80.0	65.0	72.5	*	*	*	*	*	175.0	50.0	11	*	1.8
December	34.0	21.0	27.5	80.0	60.0	70.0	*	*	*	*	*	128.0	92.0	5	*	2.4

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2001																
January	34.0	21.0	27.5	85	65	75.0	*	*	*	*	*	265.0	80.0	11	*	1.9
February	33.0	21.0	27.0	85.0	65.0	75.0	*	*	*	*	*	211.0	75.0	11	*	1.5
March	33.0	22.0	27.5	85.0	70	77.5	*	*	*	*	*	214.0	35.0	15	*	1.8
April	33.0	21.0	27.0	80.0	60	70.0	*	*	*	*	*	181.0	45.0	8	*	2.3
May	34.0	21.0	27.5	85.0	60	72.5	*	*	*	*	*	146.0	56.0	5	*	3.3
June	34.0	19.0	26.5	80.0	60.0	70.0	*	*	*	*	*	15.5	8.0	3	*	3.1
July	34.0	18.0	26.0	80.0	50.0	65.0	*	*	*	*	*	4.0	4.0	1	*	3.0
August	34.0	19.0	26.5	70.0	55.0	62.5	*	*	*	*	*	*	*	*	*	4.2
September	37.0	22.0	29.5	70.0	60.0	65.0	*	*	*	*	*	45.0	30.0	2	*	5.0
October	37.0	21.0	29.0	75.0	60.0	67.5	*	*	*	*	*	193.0	78.0	6	*	2.5
November	35.0	22.0	28.5	80.0	60.0	70.0	*	*	*	*	*	124.0	20.0	9	*	2.2
December	33.0	21.0	27.0	85.0	60.0	72.5	*	*	*	*	*	*	*	*	*	3.0

Note: Sunshine rates show the rate of sunshine hours.

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Rates (%)	Total (mm)	Max	Mean	Max	
2002																
January	33.0	22.0	27.5	80	65	72.5	*	*	*	*	*	371.0	70.0	11	*	2.2
February	33.0	21.0	27.0	85.0	70.0	77.5	*	*	*	*	*	171.0	30.0	13	*	1.8
March	34.0	21.0	27.5	85.0	70	77.5	*	*	*	*	*	67.0	25.0	8	*	2.3
April	33.0	21.0	27.0	85.0	70	77.5	*	*	*	*	*	84.0	22.0	7	*	2.8
May	34.0	21.0	27.5	85.0	65	75.0	*	*	*	*	*	30.0	30.0	1	*	3.6
June	34.0	20.0	27.0	75.0	60.0	67.5	*	*	*	*	*	*	*	*	*	3.4
July	35.0	19.0	27.0	80.0	65.0	72.5	*	*	*	*	*	*	*	*	*	4.2
August	35.0	19.0	27.0	80.0	70.0	75.0	*	*	*	*	*	2.0	2.0	1	*	4.4
September	35.0	20.0	27.5	80.0	65.0	72.5	*	*	*	*	*	*	*	*	*	4.8
October	36.0	21.0	28.5	70.0	60.0	65.0	*	*	*	*	*	*	*	*	*	4.3
November	36.0	21.0	28.5	80.0	65.0	72.5	*	*	*	*	*	155.0	80.0	5	*	3.3
December	35.0	22.0	28.5	80.0	65.0	72.5	*	*	*	*	*	184.0	45.0	9	*	1.7

### Monthly Meteorological Data at Surakarta (Pabelan)

Observatory Name : Pabelan Surakarta  
 S 7° 34' E 110° 45'

Elevation : 106 meter (MSL)  
 Velocity Observation : meter from GL

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Sunshine Rates (%)		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Mean	Max	Total (mm)	Max	Mean	Max	Mean	
2003																		
January	34.0	19.0	26.5	85	70	77.5	*	*	*	*	*	306.0	60.0	*	*	*	*	2.5
February	35.0	21.0	28.0	85.0	70.0	77.5	*	*	*	*	*	287.0	46.0	*	*	*	*	1.3
March	35.0	32.0	33.5	85.0	60	72.5	*	*	*	*	*	102.0	35.0	*	*	*	*	2.1
April	36.0	22.0	29.0	85.0	60	72.5	*	*	*	*	*	11.0	10.0	*	*	*	*	3.2
May	35.0	20.0	27.5	85.0	65	75.0	*	*	*	*	*	20.0	10.0	*	*	*	*	4.0
June	35.0	19.0	27.0	80.0	65.0	72.5	*	*	*	*	*	*	*	*	*	*	*	4.2
July	35.0	18.0	26.5	80.0	60.0	70.0	*	*	*	*	*	*	*	*	*	*	*	4.9
August	35.0	18.0	26.5	79.0	60.0	69.5	*	*	*	*	*	*	*	*	*	*	*	5.2
September	36.0	20.0	28.0	73.0	57.0	65.0	*	*	*	*	*	8.0	7.5	*	*	*	*	4.7
October	36.0	23.0	29.5	83.0	56.0	69.5	*	*	*	*	*	45.0	17.5	*	*	*	*	5.8
November	35.0	22.0	28.5	84.0	70.0	77.0	*	*	*	*	*	196.5	85.0	*	*	*	*	5.0
December	33.0	22.0	27.5	84.0	76.0	80.0	*	*	*	*	*	341.5	59.0	*	*	*	*	3.5

Note: Sunshine rates show the rate of sunshine hours.

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Sunshine Rates (%)		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Mean	Max	Total (mm)	Max	Mean	Max	Mean	
2004																		
January	32.3	24.1	28.2	83.1	70	77.5	*	*	*	*	*	412.2	71.0	*	*	*	*	3.3
February	31.3	23.0	27.1	83.1	70	77.5	*	*	*	*	*	295.5	59.0	*	*	*	*	2.7
March	31.8	23.1	27.5	82.7	70	77.5	*	*	*	*	*	306.5	104.0	*	*	*	*	2.6
April	33.7	24.0	28.8	81.5	70	77.5	*	*	*	*	*	147.5	56.0	*	*	*	*	3.3
May	33.2	23.1	28.1	79.5	70	77.5	*	*	*	*	*	190.0	78.0	*	*	*	*	2.5
June	31.7	21.2	26.5	78.3	70	77.5	*	*	*	*	*	16.0	16.0	*	*	*	*	2.8
July	32.6	22.2	27.4	79.2	70	77.5	*	*	*	*	*	60.5	47.0	*	*	*	*	2.7
August	33.1	20.9	27.0	68.9	70	77.5	*	*	*	*	*	0.0	0.0	*	*	*	*	4.1
September	34.6	22.6	28.6	64.0	70	77.5	*	*	*	*	*	1.5	1.5	*	*	*	*	7.1
October	34.7	23.3	29.0	64.1	70	77.5	*	*	*	*	*	35.0	23.0	*	*	*	*	7.3
November	32.9	23.6	27.4	77.4	70	77.5	*	*	*	*	*	364.5	81.0	*	*	*	*	4.9
December	31.4	22.9	27.1	83.3	70	77.5	*	*	*	*	*	600.6	95.0	*	*	*	*	3.8

Note: Sunshine rates show the rate of sunshine hours.

Year	Air Temperature (°C)			Relative Humidity (%)			Air Pressure (mb, hPa)			Sunshine		Sunshine Rates (%)		Rainfall		Wind Velocity (m/s)		Evaporation (mm)
	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Duration (hour)	Mean	Max	Total (mm)	Max	Mean	Max	Mean	
2005																		
January	32.0	23.3	27.6	83.7	70	77.5	*	*	*	*	*	199.5	59.0	*	*	*	*	3.8
February	32.4	21.0	26.7	83.7	70	77.5	*	*	*	*	*	315.5	49.5	*	*	*	*	2.7
March	32.7	25.0	28.9	82.6	70	77.5	*	*	*	*	*	261.5	79.0	*	*	*	*	3.8
April	32.6	24.0	28.3	80.0	70	77.5	*	*	*	*	*	246.5	51.0	*	*	*	*	4.1
May	33.0	23.1	28.0	78.6	70	77.5	*	*	*	*	*	4035.8	48.0	*	*	*	*	4.3
June	32.5	24.0	28.2	79.8	70	77.5	*	*	*	*	*	124.5	89.0	*	*	*	*	3.6
July	32.5	22.1	27.3	78.1	70	77.5	*	*	*	*	*	76.0	33.0	*	*	*	*	3.2
August	33.0	22.0	27.5	73.4	70	77.5	*	*	*	*	*	4.0	4.0	*	*	*	*	4.2
September	34.3	23.1	28.7	73.8	70	77.5	*	*	*	*	*	59.0	15.5	*	*	*	*	5.4
October	34.2	23.6	28.9	74.5	70	77.5	*	*	*	*	*	80.0	33.0	*	*	*	*	5.1
November	33.8	24.1	28.9	69.8	70	77.5	*	*	*	*	*	171.5	49.0	*	*	*	*	5.4
December	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Note: Sunshine rates show the rate of sunshine hours.

***CHAPTER 2***  
***RAINFALL DATA***






**CHAPTER 2 RAINFALL DATA**

***2.1 Availability of Daily Rainfall Data***

No.	Basin	Station	Elevation (m)	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 *	Gauge Type	Operating Agency						
1	US	Pracimantoro	251																																					O	CJIS				
3	US	Girifontro	194																																							O	CJIS		
3.a	US	Nawangan	230																																						A/O	PBS			
4	US	Girwoyo	170																																						O	CJIS			
5	US	Plumban	180																																						O	CJIS			
6	US	Eromoko	200																																						O	CJIS			
7	US	Kd. Uling	164																																						O	CJIS			
8	US	Wuryantoro	153																																						O	CJIS			
9	US	Baturetno	154																																						O	CJIS			
11	US	Baturetno	154																																							O	BMG		
12	US	Beji	163																																							O	CJIS		
13	US	Batuwarno	306																																							O	CJIS		
14	US	Ngancar	275																																							O	CJIS		
15	US	Balong	160																																							O	CJIS		
16	US	Tirtomoyo	173																																							O	CJIS		
17	US	Puter/ Girirejo	189																																							O	CJIS		
18	US	Watugede	844																																							O	CJIS		
19	US	Nguntoronadi	140																																							O	CJIS		
20	US	Manyaran	238																																							O	CJIS		
21	US	Wonogiri	136																																							O	CJIS		
22	US	Wonogiri	141																																							O	CJIS/Local Gov.		
23	US	Wd. Krisak	115																																								A/O	BMG	
24	US	Sidoarjo	342																																								O	CJIS	
25	US	Jatiroto	249																																								O	CJIS	
27	US	Jatisrono	411																																								O	CJIS	
28	US	Jr. Kemukus	450																																								O	CJIS	
29	US	Slogohimo	469																																								O	CJIS	
51	US	Ngadirojo	242																																								O	CJIS	
52	US	Jatipuro	173																																								O	CJIS	
53	US	Girimarto	494																																								O	CJIS	
54	US	Jatipurno	526																																								O	CJIS	
55	US	Bulukerto	512																																								O	CJIS	
86	US	Tawangmangu	1,000																																								A/O	PBS	
87	US	Blumbang	1,975																																								O	CJIS	
6	MD	Purwantoro	295																																								A/O	EJIS	
14	MD	Bledar	450																																									A/O	PBS

Legend :  
 US: Upper Solo  
 MD: Madiun River Basin

 : Collected completely  
 : Collected but incomplete data  
 : No Data

CJIS : Central Java Irrigation Service  
 EJIS : East Java Irrigation Service  
 PBS : Proyek Bengawan Solo  
 BMG : Badan Meteorologi dan Geofisika (Meteorological and Geophysical Service)

A/O : Automatic  
 O : Ordinary

\* : The data in 2006 is collected up to 31 May.

Availability of Daily Rainfall on Selected Stations in and around Wonogiri Reservoir Watershed

**CHAPTER 2 RAINFALL DATA**

***2.2 Monthly Rainfall at Selected Rainfall Stations***

### Monthly Rainfall at Selected Stations

Station Name : Nawangan  
 Basin : Upper Solo  
 Station No. : 3a

( unit in mm )

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1975	439	277	432	439	212	185	2	2	1	201	367	126	2683
1976	277	432	439	212	185	2	2	1	201	367	126	281	2525
1977	388	144	391	57	42	5	7	14	7	52	76	204	1385
1978	308	332	259	133	5	98	0	0	0	0	119	176	1428
1979	331	114	144	85	165	378	66	93	69	34	192	252	1920
1980	298	166	371	257	232	64	0	0	3	47	7	259	1704
1981	311	248	102	284	59	48	0	21	2	38	294	219	1626
1982	374	231	261	86	67	144	103	39	64	87	269	242	1967
1983	470	318	97	125	0	0	0	0	0	0	7	236	1253
1984	143	153	150	278	288	24	0	0	0	81	255	134	1506
1985	422	390	181	165	29	3	10	15	133	38	139	503	2028
1986	106	303	389	178	25	55	8	4	0	86	175	77	1406
1987	332	127	311	130	12	78	0	0	30	0	222	159	1401
1988	632	241	111	58	12	92	52	0	0	0	56	357	1611
1989	300	306	343	47	185	23	0	26	15	172	271	205	1893
1990	277	410	192	174	127	14	91	5	18	12	88	180	1588
1991	459	215	211	93	89	23	76	46	1	13	96	293	1615
1992	440	368	91	211	61	0	0	0	0	0	90	156	1417
1993	179	461	247	181	61	62	51	101	104	122	245	110	1924
1994	450	241	201	205	25	70	0	0	0	0	153	303	1648
1995	403	249	518	143	19	1	0	0	0	5	38	116	1492
1996	391	730	485	253	5	105	117	0	2	124	356	320	2888
1997	369	359	98	85	0	0	0	38	0	221	131	230	1531
1998	185	150	51	224	42	0	0	0	0	0	6	168	826
1999	179	210	501	236	22	214	78	5	90	278	316	492	2621
2000	320	404	406	215	100	7	0	0	0	40	154	228	1874
2001	50	524	270	143	65	13	5	0	0	21	121	58	1270
2002	304	268	264	91	29	79	39	0	0	115	117	0	1306
2003	308	430	269	92	62	0	0	0	0	0	76	368	1605
Mean	326	303	268	168	77	62	24	14	26	74	157	222	1722

Station Name : Ngancar  
 Basin : Upper Solo  
 Station No. : 14

( unit in mm )

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1975	345	538	547	264	231	3	3	1	251	457	157	350	3147
1976	521	199	392	97	49	10	1	17	8	123	311	254	1982
1977	373	515	335	369	52	278	0	0	0	0	105	287	2314
1978	392	150	386	152	94	283	124	95	62	86	187	351	2362
1979	358	345	335	420	216	95	2	40	55	109	114	579	2669
1980	431	531	203	270	101	7	3	20	27	49	172	388	2202
1981	378	382	383	150	71	76	51	7	69	69	314	245	2195
1982	319	389	135	108	24	1	15	0	2	4	51	424	1472
1983	293	215	221	229	347	34	0	0	0	135	344	207	2025
1984	440	443	308	357	115	11	24	8	134	80	206	383	2509
1985	235	321	552	239	48	68	15	1	3	65	200	318	2065
1986	514	300	569	96	52	167	0	5	56	41	289	225	2314
1987	540	379	160	80	29	88	6	0	0	0	60	235	1577
1988	384	510	198	111	176	74	0	2	9	121	338	448	2371
1989	345	451	294	151	218	117	101	38	17	24	118	254	2128
1990	378	386	216	92	108	15	43	26	1	8	56	324	1653
1991	345	414	179	293	20	0	0	0	0	7	94	269	1621
1992	368	422	499	148	50	19	32	56	62	89	162	248	2155
1993	503	233	162	252	61	100	0	5	0	57	230	381	1984
1994	338	228	538	203	35	1	0	0	0	1	89	174	1607
1995	413	612	447	191	41	119	79	0	0	114	277	194	2487
1996	257	277	145	161	27	2	11	62	0	244	151	304	1641
1997	280	272	54	203	16	0	0	0	0	0	72	304	1202
1998	173	300	410	318	100	195	149	6	44	251	174	279	2399
1999	343	320	259	149	83	12	5	0	0	114	154	350	1789
2000	190	544	372	166	96	62	0	0	0	55	217	51	1753
2001	267	262	401	106	0	97	9	0	0	0	161	0	1303
2002	0	596	0	203	72	0	0	0	0	0	133	257	1261
2003	0	552	292	22	57	56	0	0	0	66	96	431	1572
Mean	335	382	310	193	89	69	23	13	28	82	174	294	1992

### Monthly Rainfall at Selected Stations

Station Name : Wonogiri  
 Basin : Upper Solo  
 Station No. : 22

(unit in mm)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1975	293	457	465	224	369	2	4	1	136	388	169	297	2806
1976	473	379	235	123	45	4	6	15	8	172	110	142	1713
1977	468	218	145	193	71	72	0	0	0	0	114	168	1449
1978	316	109	138	81	158	361	63	88	65	32	184	240	1836
1979	285	159	355	320	465	76	0	0	3	45	179	293	2179
1980	321	479	322	305	56	15	58	36	2	106	122	144	1966
1981	312	179	187	91	34	24	92	9	38	174	159	181	1479
1982	142	315	68	52	0	0	0	0	0	0	28	257	862
1983	194	188	178	90	226	5	0	0	0	143	218	177	1419
1984	732	445	394	308	63	19	60	16	33	49	123	310	2551
1985	303	403	444	265	148	98	25	24	3	155	146	204	2218
1986	348	288	461	79	32	89	4	0	61	36	210	278	1886
1987	540	468	253	108	164	10	57	0	0	0	122	102	1824
1988	243	376	411	79	208	50	0	27	0	123	379	273	2169
1989	293	286	139	96	86	144	79	5	4	104	117	163	1517
1990	371	208	183	120	105	6	73	44	1	49	70	281	1512
1991	341	200	81	29	58	0	0	0	0	7	61	275	1053
1992	197	344	287	307	41	55	3	128	89	301	205	233	2190
1993	426	301	332	293	55	55	11	32	0	7	254	275	2041
1994	369	357	539	142	5	1	0	0	0	5	278	103	1799
1995	376	432	430	182	86	102	68	0	0	190	457	161	2484
1996	331	387	294	117	27	53	14	63	7	220	168	215	1896
1997	317	253	147	267	83	0	0	0	0	26	94	159	1346
1998	202	500	515	216	129	302	146	18	32	204	239	221	2724
1999	453	377	286	113	85	35	57	0	0	255	267	396	2324
2000	141	423	295	330	69	79	0	24	0	92	137	135	1725
2001	410	215	305	196	44	148	34	0	0	0	181	0	1533
2002	0	0	0	220	34	0	0	0	0	0	170	307	731
2003	271	0	0	0	0	0	0	0	0	0	0	251	522
Mean	327	302	272	171	102	62	29	18	17	99	171	215	1785

Note : Figures with "\*" means supplemented by nearby station with highest correlation.

Station Name : Tawangmangu  
 Basin : Upper Solo  
 Station No. : 85

(unit in mm)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1975	564	505	966	449	376	4	15	54	301	422	359	535	4550
1976	517	633	375	188	77	1	17	26	13	180	233	188	2448
1977	341	446	275	73	60	226	0	0	8	9	108	243	1789
1978	530	480	428	240	141	336	86	139	157	131	202	387	3257
1979	496	527	437	497	327	47	10	63	86	157	213	550	3410
1980	517	296	134	325	71	7	58	50	19	267	386	303	2433
1981	534	395	314	285	298	73	69	18	100	33	640	398	3157
1982	710	570	260	355	37	1	4	0	3	6	53	495	2494
1983	520	563	294	229	350	34	4	0	20	234	608	395	3251
1984	568	556	486	375	115	25	116	49	392	121	135	548	3486
1985	262	543	666	313	220	208	41	20	47	259	370	373	3322
1986	690	397	531	301	65	192	103	14	387	253	236	234	3403
1987	717	542	392	160	251	34	26	0	12	18	283	491	2926
1988	606	863	488	224	300	69	13	28	23	73	377	322	3386
1989	564	782	279	218	266	136	208	139	0	123	152	404	3271
1990	619	430	239	273	306	84	141	41	27	55	69	646	2930
1991	802	566	296	466	53	0	2	0	9	3	381	324	2902
1992	812	452	628	375	90	21	19	200	145	220	240	579	3781
1993	624	146	499	300	123	117	0	4	7	36	344	457	2657
1994	471	438	763	245	41	2	0	0	0	11	131	243	2345
1995	550	816	485	152	159	311	56	9	50	202	606	382	3778
1996	530	558	262	202	48	35	23	81	21	313	511	325	2909
1997	537	610	194	309	115	10	7	2	0	31	114	445	2374
1998	447	435	460	355	138	261	126	3	148	226	354	425	3378
1999	723	533	464	239	175	45	16	73	0	238	751	750	4007
2000	358	455	568	801	202	11	3	93	10	362	506	207	3576
2001	661	447	413	330	105	79	132	0	78	458	418	234	3355
2002	525	396	396	606	49	10	3	3	0	9	248	401	2646
2003	476	605	321	61	84	71	0	0	4	127	256	311	2316
Mean	561	517	425	308	160	84	45	38	71	158	320	400	3087

### Monthly Rainfall at Selected Stations

Station Name : Purwantoro  
 Basin : Madiun  
 Station No. : 6

(unit in mm)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1975	156	336	511	301	119	44	0	0	163	345	173	588	2736
1976	358	93	268	36	90	* 1	7	3	* 7	185	422	132	* 1602
1977	257	229	226	257	106	223	0	0	0	0	194	256	1748
1978	337	251	296	116	157	251	179	80	51	86	190	246	2240
1979	185	340	334	283	241	50	* 6	* 36	* 49	38	218	183	* 1962
1980	* 292	210	183	241	23	* 4	10	58	9	102	437	155	* 1724
1981	255	344	320	196	142	83	161	6	123	106	203	121	2060
1982	252	186	122	246	* 21	* 1	* 2	* 0	* 2	* 3	67	238	* 1140
1983	320	387	264	243	339	5	* 2	* 0	* 11	147	286	381	* 2386
1984	442	359	286	194	136	55	18	66	217	107	205	450	2535
1985	540	268	274	150	22	31	8	4	36	115	215	250	1913
1986	443	176	287	351	11	115	18	0	4	74	162	114	1755
1987	382	154	334	223	3	83	16	0	0	0	200	116	1511
1988	299	255	332	219	107	16	0	25	0	240	297	395	2185
1989	239	274	136	277	114	159	125	41	11	117	233	237	1963
1990	312	192	212	256	53	5	41	11	5	21	96	258	1462
1991	312	331	88	245	5	0	0	0	0	18	256	346	1601
1992	380	415	233	218	131	46	58	260	84	125	398	272	2620
1993	435	185	306	237	58	146	0	0	0	1	231	375	1974
1994	307	185	570	248	* 23	* 1	* 0	* 0	* 0	* 6	* 74	* 137	* 1552
1995	363	660	219	204	27	151	30	0	0	141	354	194	2343
1996	381	202	270	140	19	4	21	34	0	106	313	148	1638
1997	236	171	126	152	74	29	0	0	0	0	49	206	1043
1998	160	364	213	256	11	151	140	1	35	133	285	282	2031
1999	325	221	134	104	74	3	0	10	5	260	395	265	1796
2000	233	248	292	335	56	54	0	0	3	196	203	269	1889
2001	308	142	165	175	98	53	0	0	0	80	234	0	1255
2002	0	391	0	0	0	0	0	0	0	0	218	257	866
2003	307	361	0	63	53	0	0	0	0	0	0	0	784
Mean	304	273	241	206	80	61	29	22	28	95	228	237	1804

Station Name : Jejeruk  
 Basin : Madiun  
 Station No. : 29

(unit in mm)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1975	553	104	213	256	195	8	25	* 36	236	153	211	117	* 2106
1976	780	412	573	617	112	0	0	0	0	208	450	178	3330
1977	596	295	389	252	55	307	0	0	0	0	69	190	2153
1978	381	170	489	176	304	268	125	170	203	* 44	101	193	* 2624
1979	247	206	264	634	347	108	* 6	* 40	60	150	313	98	* 2473
1980	286	325	228	220	* 25	* 1	111	* 1	52	150	318	222	* 1939
1981	249	186	481	154	175	113	128	9	51	84	112	227	1969
1982	404	245	225	329	5	42	51	* 0	* 2	* 4	79	352	* 1738
1983	291	398	380	225	365	* 2	* 0	* 0	* 0	* 57	209	250	* 2177
1984	280	336	205	318	177	74	* 0	39	145	146	326	401	* 2447
1985	430	353	438	105	155	326	4	17	5	153	94	259	2339
1986	385	299	440	312	74	269	23	2	61	266	196	266	2593
1987	310	318	243	200	58	90	12	0	0	0	224	341	1796
1988	462	151	282	152	104	23	* 10	34	5	126	184	142	* 1674
1989	360	438	91	339	193	237	72	58	6	117	221	160	2290
1990	355	360	78	190	147	70	105	* 1	3	34	86	470	* 1896
1991	401	291	224	281	6	12	* 0	* 0	* 0	9	217	400	* 1840
1992	289	341	371	137	316	112	171	166	134	88	331	433	2888
1993	555	177	261	345	98	170	0	8	0	5	142	211	1971
1994	431	558	618	199	3	0	0	0	0	4	199	170	2180
1995	512	273	503	343	29	234	201	* 0	5	168	223	159	* 2649
1996	247	254	287	217	14	19	60	47	14	117	196	275	1746
1997	233	250	104	63	211	64	1	11	* 0	9	39	334	* 1319
1998	400	395	587	341	55	260	149	15	49	225	254	219	2949
1999	410	271	344	79	118	14	0	0	0	111	386	* 293	* 2026
2000	247	176	316	286	182	38	0	42	0	190	233	105	1815
2001	417	155	279	305	177	156	165	0	56	458	217	103	2488
2002	400	257	439	211	39	0	0	0	0	6	123	440	1915
2003	457	362	356	146	140	32	0	0	23	84	417	234	2251
Mean	392	288	335	256	134	105	49	24	38	109	213	250	2192

Note : Figures with "\*" means supplemented by nearby station with highest correlation.

*CHAPTER 2 RAINFALL DATA*

*2.3 Daily Rainfall at Selected Rainfall Stations*

**DAILY RAINFALL DATA AT NAWANGAN**

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1975 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	*3.2	*5.6	*4.0	*36.1	*0.0	*0.0	*0.0	*0.0	*0.0	*68.2	*0.8	*0.0
2	*0.0	*17.7	*6.4	*19.3	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*33.7
3	*0.8	*147.6	*6.4	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*11.2	*18.5	*0.0
4	*0.0	*2.4	*11.2	*0.0	*2.4	*0.0	*0.0	*0.0	*0.0	*5.6	*1.6	*12.8
5	*25.7	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*27.3	*6.4	*37.7
6	*12.8	*18.5	*4.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*40.9	*13.6	*2.4
7	*0.8	*17.7	*0.8	*0.8	*0.0	*0.0	*0.0	*0.0	*0.0	*17.7	*9.6	*6.4
8	*32.1	*12.0	*17.7	*8.0	*4.8	*0.0	*0.0	*0.0	*8.0	*0.0	*0.8	*0.0
9	*4.8	*32.1	*22.5	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*6.4	*0.0	*27.3
10	*10.4	*1.6	*0.8	*0.8	*49.7	*0.0	*0.0	*0.0	*50.5	*2.4	*7.2	*5.6
11	*1.6	*5.6	*18.5	*0.0	*17.7	*0.0	*0.0	*0.0	*31.3	*0.0	*0.0	*10.4
12	*24.9	*0.0	*8.8	*9.6	*1.6	*0.0	*0.0	*0.0	*0.0	*28.9	*6.4	*11.2
13	*16.0	*24.9	*15.2	*0.0	*0.0	*0.0	*2.4	*0.0	*37.7	*2.4	*0.0	*29.7
14	*12.0	*1.6	*4.8	*22.5	*27.3	*0.0	*0.0	*0.0	*4.0	*0.0	*4.0	*31.3
15	*0.0	*32.1	*5.6	*4.8	*1.6	*0.0	*0.0	*0.0	*9.6	*0.0	*9.6	*8.0
16	*0.8	*33.7	*32.9	*25.7	*16.8	*0.0	*0.0	*0.8	*3.2	*0.0	*0.0	*7.2
17	*21.7	*4.0	*0.0	*0.0	*9.6	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
18	*4.8	*0.0	*0.0	*4.8	*10.4	*0.0	*0.0	*0.0	*0.0	*12.8	*0.0	*1.6
19	*0.0	*2.4	*3.2	*27.3	*0.0	*0.0	*0.0	*0.0	*26.5	*6.4	*2.4	*2.4
20	*0.8	*8.8	*60.2	*1.6	*0.0	*2.2	*0.0	*0.0	*0.0	*33.7	*0.0	*0.0
21	*2.4	*19.3	*4.0	*0.0	*1.6	*0.0	*0.0	*0.0	*0.0	*34.5	*0.8	*0.0
22	*0.0	*1.6	*34.5	*1.6	*0.0	*0.0	*0.0	*0.0	*0.0	*15.2	*0.0	*0.0
23	*3.2	*1.6	*29.7	*0.8	*37.7	*0.0	*0.0	*0.0	*0.0	*0.0	*0.8	*0.0
24	*0.0	*9.6	*5.6	*8.8	*0.0	*0.0	*0.0	*0.0	*0.0	*12.8	*0.8	*0.0
25	*0.0	*5.6	*7.2	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*11.2	*0.0	*7.2
26	*4.0	*2.4	*55.4	*0.0	*4.0	*0.0	*0.0	*0.0	*0.0	*6.4	*5.6	*0.0
27	*28.9	*22.5	*3.2	*11.2	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*3.2	*0.0
28	*3.2	*0.8	*13.6	*28.1	*0.0	*0.0	*0.0	*0.0	*27.3	*7.2	*33.7	*0.0
29	*45.7		*14.4	*0.0	*0.0	*0.0	*0.0	*0.0	*3.2	*15.2	*0.0	*31.3
30	*12.0		*48.1	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*12.0
31	*4.0		*0.0		*0.0		*0.0	*0.0		*0.0		*2.4
Max.	*45.7	*147.6	*60.2	*36.1	*49.7	*2.2	*2.4	*0.8	*50.5	*68.2	*33.7	*37.7
Total	*276.8	*431.6	*438.9	*211.8	*185.3	*2.2	*2.4	*0.8	*201.4	*366.7	*126.0	*280.8

Annual : \*2524.6      Max. : \*147.6

Year : 1976 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	40.0	30.5	0.0	3.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*10.4
2	18.3	1.0	14.0	0.0	*1.6	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
3	55.0	0.0	0.0	0.0	*0.0	0.0	2.0	*7.1	*0.0	0.0	0.0	*81.0
4	2.0	18.5	9.3	10.5	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*3.2
5	2.8	2.0	0.0	11.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.8
6	2.0	0.5	0.0	5.0	*2.7	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
7	0.8	6.3	7.0	0.0	*14.2	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
8	20.5	0.0	13.3	0.0	*10.3	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
9	10.0	1.5	11.0	0.0	*6.5	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
10	15.0	10.0	64.5	0.0	*2.2	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
11	0.0	24.0	5.5	0.0	*0.0	4.5	0.0	*0.0	*0.0	0.0	0.0	*0.8
12	0.0	10.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
13	7.0	0.0	9.8	1.0	*0.0	0.0	0.0	*0.0	*0.0	6.5	0.0	*0.8
14	9.0	1.3	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	1.0	0.0	*1.6
15	24.1	0.0	26.5	0.0	*0.0	0.0	0.0	*0.0	*0.0	4.0	0.0	*57.0
16	29.8	5.0	2.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	9.0	0.0	*0.0
17	34.9	0.0	1.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	6.0	*0.0
18	26.8	0.0	3.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
19	9.0	2.6	5.8	22.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	4.0	*0.0
20	32.0	6.0	22.0	3.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
21	16.8	0.0	1.2	1.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	16.0	*0.0
22	1.0	2.2	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	35.0	*0.0
23	14.5	13.5	0.0	0.0	*0.0	0.0	1.5	*0.0	*0.0	6.0	0.0	*0.0
24	7.2	0.0	8.0	0.0	*0.0	0.0	1.5	*0.0	*0.0	0.0	0.0	*0.0
25	3.3	9.5	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
26	6.3	0.0	50.0	0.0	*0.0	0.0	0.0	*1.6	*1.6	3.0	0.0	*3.2
27	0.0	0.0	1.5	0.0	*0.0	0.0	0.5	*0.0	*0.0	22.0	0.5	*11.2
28	0.0	0.0	0.0	0.0	*0.0	0.0	0.5	*5.4	*0.0	0.0	0.0	*7.2
29	0.0	0.0	136.0	0.0	*0.0	0.0	0.5	*0.0	*5.4	0.0	0.0	*26.5
30	0.0		0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	14.0	*0.0
31	0.0		0.0		*4.4		0.0	*0.0		0.0		*0.0
Max.	55.0	30.5	136.0	22.0	*14.2	4.5	2.0	*7.1	*5.4	22.0	35.0	*81.0
Total	388.1	144.4	391.4	56.5	*41.9	4.5	6.5	*14.2	*7.1	51.5	75.5	*203.8

Annual : \*1385.3      Max. : \*136.0

\*\* : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT NAWANGAN**

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1977 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 0.0	0.0	1.0	44.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0
2	* 0.0	0.0	3.0	5.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
3	* 10.4	0.0	0.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
4	* 0.0	24.0	67.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	* 36.9	18.5	29.6	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	31.0
6	* 0.0	7.5	1.0	16.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
7	* 0.0	25.5	30.5	0.0	0.0	6.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.5
8	9.0	27.5	0.0	1.0	5.0	31.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	29.0
9	* 0.0	0.0	20.5	13.5	0.0	2.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	18.5
10	* 0.0	3.0	2.9	0.0	0.0	4.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	22.0
11	* 0.0	0.0	1.0	0.0	0.0	10.5	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.5
12	* 0.0	0.0	7.0	0.0	0.0	19.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
13	* 4.8	3.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
14	* 0.0	23.0	23.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
15	* 0.0	4.0	1.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
16	* 0.0	0.0	10.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	4.0	0.0
17	* 0.0	0.5	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
18	* 28.9	25.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	* 95.5	0.5	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	0.0
20	* 14.4	21.5	0.0	0.0	0.0	1.0	* 0.0	* 0.0	* 0.0	* 0.0	6.0	0.0
21	* 24.1	8.0	0.0	43.5	0.0	23.5	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
22	* 28.1	0.0	0.0	0.0	0.0	0.5	* 0.0	* 0.0	* 0.0	* 0.0	94.0	0.0
23	* 17.7	44.0	0.0	7.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	14.0	0.0
24	* 32.1	5.0	0.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.5
25	* 0.0	5.5	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
26	* 0.0	72.5	14.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	33.0
27	* 0.0	13.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
28	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
29	* 0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
30	* 0.0		16.5	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.5
31	* 6.4		31.0		0.0		* 0.0	* 0.0		* 0.0		4.0
Max.	* 95.5	72.5	67.0	44.5	5.0	31.0	* 0.0	* 0.0	* 0.0	* 0.0	94.0	33.0
Total	* 308.3	331.5	259.0	132.5	5.0	97.5	* 0.0	* 0.0	* 0.0	* 0.0	119.0	175.5

Annual : \* 1428.3      Max. : \* 95.5

Year : 1978 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.3	1.0	0.0	0.0	6.0	0.0	17.5	39.5	0.0	0.0	0.0	0.0
2	2.0	0.5	1.5	27.0	0.0	20.0	3.5	0.0	2.5	0.0	0.0	9.5
3	0.5	10.0	0.0	0.0	0.0	30.0	2.5	0.0	5.5	17.5	0.0	1.5
4	44.5	13.0	0.0	5.5	99.0	15.0	2.5	0.0	0.5	1.0	0.0	0.5
5	0.5	3.0	10.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0	29.0	0.0
6	6.5	14.5	22.0	1.5	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	1.0	5.0	0.5	12.0	0.0	8.0	0.0	0.0	0.0
8	0.0	0.0	1.5	18.0	0.0	19.0	10.0	0.0	0.5	0.0	0.5	5.0
9	0.0	0.0	0.0	7.0	0.0	48.0	6.5	0.0	0.5	0.0	32.0	2.0
10	3.0	0.0	0.0	0.0	1.5	3.0	0.0	0.0	0.0	0.0	2.0	23.0
11	5.0	0.0	11.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	5.5	0.0	0.5	1.0	14.0	0.0	6.0	0.0	0.0	0.0	7.5	8.0
13	0.0	0.0	16.5	0.0	2.0	56.5	0.0	0.0	0.0	0.0	4.0	0.5
14	0.0	0.0	2.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	70.0	0.5
15	0.0	0.0	13.5	0.0	7.5	0.0	0.0	0.0	0.0	0.0	8.0	71.5
16	12.0	0.0	1.0	0.0	0.5	0.0	0.0	53.0	0.0	7.5	9.0	4.0
17	12.0	0.0	1.0	0.0	6.0	29.0	0.0	0.0	0.0	0.0	0.5	14.0
18	72.5	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	2.0	0.0	0.0
19	4.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0
20	1.0	5.0	10.5	0.0	1.5	0.0	0.0	0.0	49.5	1.5	0.5	0.0
21	3.5	8.0	1.5	0.0	5.0	0.0	4.0	0.0	0.0	1.0	15.5	3.5
22	20.0	13.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
23	24.0	5.0	0.5	0.0	3.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
24	25.0	14.5	0.5	0.0	0.0	4.0	0.0	0.0	0.0	1.0	0.0	1.0
25	12.0	15.0	0.0	6.0	0.0	56.0	0.0	0.0	0.0	0.0	0.0	30.5
26	11.5	5.5	22.0	4.5	1.0	0.0	0.5	0.0	0.0	0.0	0.0	14.0
27	0.0	5.0	5.0	0.0	3.0	0.0	0.5	0.0	0.0	2.0	0.0	6.5
28	8.7	0.0	0.0	0.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0	5.0
29	28.8		5.0	1.0	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0
30	27.0		9.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	13.0	31.5
31	0.0		8.0		0.0		0.0	0.0		0.0		19.5
Max.	72.5	15.0	22.0	27.0	99.0	56.5	17.5	53.0	49.5	17.5	70.0	71.5
Total	330.8	114.0	144.2	85.0	165.0	377.5	65.5	92.5	68.5	33.5	192.0	251.5

Annual : 1,920      Max. : 99.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1979 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	18.0	0.0	18.0	2.0	11.0	34.0	0.0	0.0	0.0	0.0	0.0	1.0
2	9.0	0.0	12.0	4.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
3	3.0	0.0	1.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	5.0
4	1.0	13.0	33.0	5.0	5.0	1.0	0.0	0.0	0.0	0.0	0.5	0.0
5	1.0	0.0	1.0	0.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
6	0.0	0.0	0.0	41.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	68.0
7	5.0	5.0	5.0	10.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
8	9.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
9	11.0	1.0	13.0	0.0	5.0	20.0	0.0	0.0	0.0	0.0	0.0	2.0
10	2.0	20.0	27.0	27.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
11	8.0	0.0	25.0	0.0	16.0	1.0	0.0	0.0	3.0	0.0	0.0	0.0
12	26.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
13	7.0	0.0	56.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	41.0	0.0	3.0	35.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	11.0	3.0	2.0	35.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
17	10.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	15.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
19	26.0	2.0	15.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
20	6.0	0.0	25.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0
21	33.0	28.0	53.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
22	17.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
23	5.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	32.0
24	1.0	2.0	0.0	10.0	63.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0
25	11.0	41.0	0.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
26	22.0	0.0	31.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
27	0.0	25.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0
28	0.0	8.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
29	0.0		11.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	2.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	3.0
31	0.0		8.0		0.0		0.0	0.0		1.0		3.0
<b>Max.</b>	41.0	41.0	56.0	41.0	63.0	34.0	0.0	0.0	3.0	40.0	2.0	68.0
<b>Total</b>	298.0	166.0	371.0	257.0	232.0	64.0	0.0	0.0	3.0	47.0	7.0	259.0

Annual : 1704      Max. : 68.0

Year : 1980 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.0	7.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
2	17.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	10.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
4	11.0	0.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
5	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
7	3.0	17.0	0.0	2.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	5.0	0.0	3.0	1.0	19.0	0.0	0.0	15.0	0.0	0.0	0.0	14.0
9	14.0	9.0	0.0	18.0	0.0	0.0	0.0	1.0	0.0	0.0	4.0	9.0
10	4.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	16.0	0.0	35.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	4.0
12	4.0	19.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
13	17.0	6.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	6.0
14	19.0	0.0	3.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	3.0	2.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
16	0.0	1.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
17	1.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.0
18	0.0	1.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	33.0
19	14.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0	0.0
20	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	19.0	19.0	0.0	3.0	0.0	48.0	0.0	0.0	0.0	0.0	13.0	0.0
22	3.0	92.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	15.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	33.0
24	5.0	0.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	7.0	19.0	0.0
25	15.0	8.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	0.0
26	14.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.0	5.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	9.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	11.0	3.0
29	21.0	19.0	3.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	27.0
30	60.0		11.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	25.0	0.0
31	20.0		6.0		0.0		0.0	0.0		15.0		48.0
<b>Max.</b>	60.0	92.0	35.0	48.0	23.0	48.0	0.0	15.0	2.0	15.0	61.0	48.0
<b>Total</b>	311.0	248.0	102.0	284.0	59.0	48.0	0.0	21.0	2.0	38.0	294.0	219.0

Annual : 1626      Max. : 92.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT NAWANGAN**

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1981 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.0	36.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
2	2.0	0.0	17.0	1.0	6.0	0.0	3.0	0.0	0.0	0.0	0.0	2.0
3	1.0	1.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4.0	22.0	44.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
5	1.0	14.0	2.0	48.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
6	10.0	16.0	1.0	2.0	0.0	0.0	45.0	0.0	0.0	11.0	0.0	20.0
7	18.0	10.0	9.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	17.0
8	2.0	1.0	0.0	0.0	4.0	0.0	1.0	0.0	0.0	0.0	0.0	11.0
9	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
10	15.0	4.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	46.0
11	27.0	4.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	3.0
12	0.0	0.0	1.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	4.0	0.0
13	3.0	0.0	3.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	26.0	2.0
14	27.0	0.0	11.0	7.0	0.0	0.0	22.0	0.0	0.0	0.0	15.0	4.0
15	1.0	49.0	0.0	0.0	5.0	0.0	9.0	0.0	0.0	0.0	0.0	45.0
16	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	21.0	0.0
17	7.0	0.0	16.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
18	54.0	12.0	6.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	1.0	0.0
19	0.0	17.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
20	1.0	20.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	34.0	0.0	2.0	0.0	0.0	0.0	0.0
22	0.0	2.0	0.0	3.0	0.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0
23	7.0	8.0	0.0	0.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0
24	2.0	0.0	0.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	36.0	0.0
25	13.0	4.0	0.0	4.0	0.0	2.0	0.0	0.0	16.0	25.0	0.0	30.0
26	2.0	0.0	19.0	8.0	0.0	0.0	0.0	0.0	3.0	4.0	0.0	23.0
27	39.0	0.0	29.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	22.0	0.0
28	78.0	9.0	17.0	0.0	12.0	0.0	0.0	0.0	45.0	0.0	16.0	0.0
29	0.0		15.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0
30	40.0		0.0	0.0	8.0	45.0	0.0	0.0	0.0	21.0	31.0	0.0
31	2.0		0.0		0.0		0.0	0.0		0.0		4.0
<b>Max.</b>	78.0	49.0	44.0	48.0	28.0	45.0	45.0	23.0	45.0	25.0	50.0	46.0
<b>Total</b>	374.0	231.0	261.0	86.0	67.0	144.0	103.0	39.0	64.0	87.0	269.0	242.0

Annual : 1967 Max. : 78.0

Year : 1982 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
2	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	35.0	0.0	3.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	8.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	15.0	13.0	12.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	22.0	83.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	35.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.0
9	10.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	11.0	20.0	20.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
11	59.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
12	21.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	10.0
13	48.0	25.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	18.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	30.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
18	11.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	31.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
22	66.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
23	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0
24	7.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
25	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
26	1.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	16.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
28	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
31	28.0		0.0		0.0		0.0	0.0		0.0		12.0
<b>Max.</b>	66.0	83.0	20.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	61.0
<b>Total</b>	470.0	318.0	97.0	125.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	236.0

Annual : 1253 Max. : 83.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT NAWANGAN**

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1983 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.0	0.0	1.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	31.0
2	19.0	3.0	3.0	0.0	13.0	7.0	0.0	0.0	0.0	0.0	10.0	1.0
3	41.0	2.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
4	0.0	5.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
5	25.0	12.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0	0.0
6	0.0	4.0	0.0	8.0	2.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
7	20.0	12.0	10.0	0.0	45.0	0.0	0.0	0.0	0.0	0.0	13.0	12.0
8	0.0	0.0	3.0	13.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
9	7.0	0.0	4.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
10	0.0	13.0	18.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
11	0.0	11.0	0.0	2.0	0.0	17.0	0.0	0.0	0.0	0.0	8.0	13.0
12	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	13.0	3.0
13	13.0	11.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
14	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
15	2.0	29.0	5.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	7.0	0.0	13.0	2.0	0.0	0.0	0.0	0.0	5.0	0.0	4.0
17	0.0	1.0	0.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	3.0	0.0	26.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
19	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0
20	2.0	9.0	1.0	3.0	30.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
21	0.0	0.0	17.0	0.0	21.0	0.0	0.0	0.0	0.0	5.0	27.0	0.0
22	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
23	2.0	2.0	34.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	5.0	0.0	8.0	0.0	0.0	0.0	0.0	9.0	0.0	20.0
25	0.0	0.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	17.0	13.0
26	0.0	0.0	0.0	0.0	19.0	0.0	0.0	0.0	0.0	2.0	17.0	3.0
27	0.0	0.0	14.0	15.0	0.0	0.0	0.0	0.0	0.0	13.0	18.0	14.0
28	3.0	1.0	11.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	30.0	9.0
29	0.0		0.0	15.0	8.0	0.0	0.0	0.0	0.0	1.0	3.0	8.0
30	0.0		0.0	52.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	1.0
31	2.0		0.0		9.0		0.0	0.0		15.0		0.0
Max.	41.0	29.0	34.0	55.0	45.0	17.0	0.0	0.0	0.0	17.0	30.0	31.0
Total	143.0	153.0	150.0	278.0	288.0	24.0	0.0	0.0	0.0	81.0	255.0	134.0
Annual :	1506		Max. :		55.0							

Year : 1984 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	6.0	3.0	0.0	0.0	0.0	10.0	0.0	0.0	16.0	31.0	5.0
2	3.0	19.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0
3	22.0	53.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	0.0	0.0
4	38.0	62.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	18.0	25.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
6	0.0	25.0	14.0	30.0	2.0	0.0	0.0	0.0	22.0	0.0	0.0	22.0
7	6.0	20.0	7.0	1.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	10.0
8	0.0	0.0	2.0	5.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	10.0
9	6.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
10	20.0	16.0	2.0	99.0	0.0	0.0	0.0	0.0	24.0	0.0	19.0	9.0
11	11.0	15.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.0
12	14.0	12.0	20.0	0.0	2.0	0.0	0.0	0.0	15.0	0.0	0.0	23.0
13	6.0	22.0	5.0	3.0	0.0	3.0	0.0	0.0	11.0	0.0	0.0	27.0
14	29.0	7.0	3.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0
15	21.0	0.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
16	0.0	49.0	52.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
17	17.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0
18	18.0	5.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	5.0	0.0	12.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	9.0	4.0	0.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	12.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
24	31.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
25	23.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	3.0
26	23.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	30.0	0.0	21.0	50.0
27	30.0	8.0	0.0	2.0	0.0	0.0	0.0	15.0	0.0	0.0	11.0	3.0
28	23.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	15.0
29	29.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
30	14.0		6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	22.0
31	11.0		0.0		0.0		0.0	0.0		0.0		4.0
Max.	38.0	62.0	52.0	99.0	9.0	3.0	10.0	15.0	30.0	22.0	31.0	70.0
Total	422.0	390.0	181.0	165.0	29.0	3.0	10.0	15.0	133.0	38.0	139.0	503.0
Annual :	2028		Max. :		99.0							

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1985 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	20.0
2	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	1.0	22.0	5.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	9.0
4	0.0	12.0	25.0	36.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	11.0
5	0.0	0.0	53.0	18.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	14.0	57.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
7	0.0	2.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
8	15.0	24.0	44.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	9.0	25.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	2.0	8.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	28.0	0.0	15.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0
12	0.0	16.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	13.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
14	5.0	104.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	6.0	0.0	5.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0
18	12.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	5.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	11.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	15.0	8.0	0.0
22	0.0	10.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	10.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
24	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	28.0	10.0
25	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	10.0	8.0
26	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	20.0	2.0
27	3.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	0.0
28	10.0	0.0	0.0	32.0	0.0	0.0	0.0	0.0	0.0	20.0	15.0	0.0
29	0.0		0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
30	7.0		0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	28.0	0.0
31	0.0		0.0		0.0		0.0	0.0		4.0		0.0
<b>Max.</b>	16.0	104.0	100.0	36.0	8.0	14.0	8.0	4.0	0.0	35.0	28.0	20.0
<b>Total</b>	106.0	303.0	389.0	178.0	25.0	55.0	8.0	4.0	0.0	86.0	175.0	77.0

Annual : 1406                      Max. : 104.0

Year : 1986 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	17.0	0.0	0.0	2.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	19.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
4	22.0	0.0	0.0	28.0	0.0	1.0	* 0.0	* 0.0	0.0	0.0	17.0	0.0
5	0.0	0.0	0.0	10.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	18.0	0.0
6	0.0	0.0	0.0	5.0	0.0	4.0	* 0.0	* 0.0	0.0	0.0	18.0	0.0
7	0.0	0.0	7.0	25.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	8.0	0.0
8	0.0	4.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	12.0	0.0	10.0	0.0
9	27.0	15.0	6.0	0.0	5.0	0.0	* 0.0	* 0.0	0.0	0.0	1.0	0.0
10	24.0	3.0	26.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	4.0	0.0
11	28.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	5.0	0.0
12	30.0	0.0	2.0	10.0	0.0	2.0	* 0.0	* 0.0	0.0	0.0	46.0	0.0
13	32.0	2.0	1.0	0.0	0.0	10.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
14	6.0	10.0	3.0	0.0	0.0	13.0	* 0.0	* 0.0	0.0	0.0	0.0	46.0
15	5.0	6.0	15.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	1.0	37.0
16	0.0	25.0	3.0	0.0	0.0	13.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
17	11.0	20.0	5.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	15.0
18	0.0	1.0	20.0	6.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
19	9.0	10.0	11.0	6.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	3.0	0.0
20	0.0	0.0	22.0	1.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	5.0	2.0
21	10.0	0.0	8.0	10.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	3.0
22	23.0	8.0	16.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
23	8.0	12.0	24.0	8.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
24	30.0	0.0	8.0	0.0	0.0	0.0	* 0.0	* 0.0	15.0	0.0	0.0	26.0
25	21.0	0.0	14.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
26	20.0	9.0	35.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	70.0	30.0
27	7.0	2.0	25.0	0.0	7.0	0.0	* 0.0	* 0.0	0.0	0.0	6.0	0.0
28	2.0	0.0	20.0	0.0	0.0	0.0	* 0.0	* 0.0	3.0	0.0	10.0	0.0
29	0.0		15.0	0.0	0.0	32.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
30	0.0		10.0	0.0	0.0	3.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
31	0.0		15.0		0.0		* 0.0	* 0.0		0.0		0.0
<b>Max.</b>	32.0	25.0	35.0	28.0	7.0	32.0	* 0.0	* 0.0	15.0	0.0	70.0	46.0
<b>Total</b>	332.0	127.0	311.0	130.0	12.0	78.0	* 0.0	* 0.0	30.0	0.0	222.0	159.0

Annual : \* 1401.0                      Max. : \* 70.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1987 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	53.0	10.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	65.0
2	17.0	35.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	9.0
3	9.0	17.0	0.0	0.0	0.0	0.0	* 30.0	* 0.0	* 0.0	* 0.0	0.0	0.0
4	40.0	0.0	0.0	0.0	0.0	68.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	33.0	0.0	10.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	13.0
6	32.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	14.0
7	72.0	20.0	0.0	0.0	0.0	4.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0
8	9.0	27.0	0.0	36.0	0.0	20.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	5.0
9	12.0	3.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0
10	10.0	0.0	0.0	13.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
11	12.0	0.0	0.0	9.0	0.0	0.0	* 1.5	* 0.0	* 0.0	* 0.0	0.0	1.0
12	18.0	2.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
13	69.0	6.0	13.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	11.0
14	49.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	14.0
15	24.0	0.0	62.0	0.0	0.0	0.0	* 15.3	* 0.0	* 0.0	* 0.0	0.0	3.0
16	7.0	20.0	2.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	24.0
17	6.0	15.0	13.0	0.0	0.0	0.0	* 5.1	* 0.0	* 0.0	* 0.0	0.0	5.0
18	8.0	9.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
19	9.0	40.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	15.0
20	0.0	8.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	38.0
21	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	12.0
22	5.0	9.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
23	0.0	2.0	11.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0
24	9.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	13.0
25	37.0	10.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	60.0
26	10.0	8.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	10.0	15.0
27	25.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0
28	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0
29	7.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
30	40.0		0.0	0.0	10.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	46.0	0.0
31	10.0		0.0		2.0		* 0.0	* 0.0		* 0.0		0.0
Max.	72.0	40.0	62.0	36.0	10.0	68.0	* 30.0	* 0.0	* 0.0	* 0.0	46.0	65.0
Total	632.0	241.0	111.0	58.0	12.0	92.0	* 51.9	* 0.0	* 0.0	* 0.0	56.0	357.0

Annual : \* 1610.9      Max. : \* 72.0

Year : 1988 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	1.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	9.0
2	0.0	1.0	74.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.0
3	0.0	19.0	2.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
4	0.0	5.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0
5	3.0	109.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	4.0	0.0	0.0	2.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
7	0.0	9.0	1.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	12.0	20.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	17.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
10	3.0	8.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
11	1.0	40.0	47.0	0.0	3.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
12	12.0	26.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	2.0	15.0	1.0
13	30.0	16.0	32.0	0.0	32.0	0.0	0.0	0.0	0.0	0.0	41.0	2.0
14	19.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
15	0.0	11.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	34.0	55.0	0.0
16	36.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	4.0	1.0
17	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	11.0	8.0	67.0
18	0.0	0.0	3.0	1.0	0.0	3.0	0.0	0.0	2.1	3.0	0.0	6.0
19	1.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	11.0
20	1.0	0.0	17.0	3.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	15.0
21	8.0	0.0	1.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
22	8.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	27.0
23	34.0	0.0	1.0	0.0	43.0	0.0	0.0	0.0	0.0	0.0	35.0	17.0
24	0.0	7.0	7.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0
25	97.0	2.0	36.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	19.0	1.0
26	10.0	5.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0
27	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	1.0
28	14.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	8.0
29	0.0	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	5.0
30	8.0		0.0	0.0	1.0	0.0	0.0	0.0	0.0	15.0	10.0	0.0
31	3.0		34.0		9.0		0.0	0.0		0.0		11.0
Max.	97.0	109.0	74.0	26.0	43.0	15.0	0.0	25.0	13.0	40.0	55.0	67.0
Total	300.0	306.0	343.0	47.0	185.0	23.0	0.0	26.0	15.1	172.0	271.0	205.0

Annual : 1893      Max. : 109.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1989 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	17.0	0.0	2.0	0.0	0.0	1.0	* 0.0	0.0	0.0	1.0	0.0
2	28.0	16.0	8.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	36.0	0.0
3	0.0	10.0	8.0	58.0	0.0	0.0	0.0	* 1.3	0.0	0.0	10.0	0.0
4	12.0	3.0	2.0	16.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.0	0.0
5	1.0	8.0	5.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
6	34.0	37.0	51.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
7	0.0	7.0	12.0	15.0	0.0	3.0	0.0	* 0.0	0.0	0.0	0.0	21.0
8	0.0	11.0	0.0	3.0	4.0	3.0	3.0	* 0.0	0.0	6.0	9.0	9.0
9	0.0	0.0	0.0	21.0	0.0	2.0	0.0	* 0.0	0.0	0.0	6.0	7.0
10	5.0	0.0	12.0	0.0	21.0	6.0	0.0	* 0.0	0.0	0.0	0.0	0.0
11	2.0	5.0	22.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
12	7.0	12.0	0.0	0.0	0.0	0.0	1.0	* 0.0	0.0	0.0	0.0	1.0
13	0.0	22.0	0.0	2.0	1.0	0.0	2.0	* 0.0	0.0	0.0	0.0	0.0
14	0.0	16.0	0.0	0.0	1.0	0.0	0.0	* 0.0	0.0	4.0	2.0	0.0
15	8.0	2.0	9.0	0.0	3.0	0.0	0.0	* 0.0	0.0	0.0	13.0	9.0
16	37.0	6.0	12.0	0.0	0.0	0.0	1.0	* 2.0	18.0	1.0	2.0	0.0
17	18.0	45.0	0.0	0.0	0.0	0.0	15.0	* 0.0	0.0	0.0	3.0	0.0
18	14.0	1.0	0.0	0.0	0.0	0.0	2.0	* 0.0	0.0	0.0	0.0	0.0
19	0.0	24.0	0.0	0.0	0.0	0.0	24.0	* 0.0	0.0	0.0	0.0	0.0
20	0.0	13.0	0.0	0.0	0.0	0.0	13.0	* 0.0	0.0	0.0	0.0	0.0
21	0.0	4.0	0.0	5.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
22	0.0	3.0	0.0	0.0	1.0	0.0	0.0	* 0.0	0.0	0.0	2.0	0.0
23	12.0	30.0	0.0	3.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0	18.0
24	1.0	0.0	3.0	2.0	1.0	0.0	25.0	* 0.0	0.0	0.0	1.0	25.0
25	3.0	27.0	13.0	0.0	9.0	0.0	1.0	* 0.0	0.0	0.0	0.0	0.0
26	9.0	26.0	0.0	0.0	1.0	0.0	3.0	* 0.0	0.0	0.0	0.0	3.0
27	15.0	49.0	1.0	0.0	34.0	0.0	0.0	* 0.0	0.0	0.0	0.0	57.0
28	1.0	16.0	5.0	41.0	1.0	0.0	0.0	* 0.0	0.0	0.0	0.0	19.0
29	0.0		8.0	6.0	28.0	0.0	0.0	* 0.0	0.0	0.0	0.0	5.0
30	28.0		16.0	0.0	0.0	0.0	0.0	* 1.7	0.0	1.0	0.0	0.0
31	7.0		5.0		22.0		0.0	* 0.0				6.0
<b>Max.</b>	37.0	49.0	51.0	58.0	34.0	6.0	25.0	* 2.0	18.0	6.0	36.0	57.0
<b>Total</b>	242.0	410.0	192.0	174.0	127.0	14.0	91.0	* 5.0	18.0	12.0	88.0	180.0

Annual : \* 1553.0      Max. : \* 58.0

Year : 1990 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.0	0.0	42.0	33.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
2	48.0	8.0	2.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
3	2.0	0.0	9.0	0.0	0.0	0.0	30.0	2.0	* 0.0	0.0	0.0	11.0
4	0.0	0.0	1.0	0.0	0.0	0.0	23.0	0.0	* 0.0	0.0	0.0	0.0
5	1.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	* 0.0	6.0	0.0	0.0
6	43.0	0.0	38.0	25.0	0.0	0.0	10.0	0.0	* 0.0	5.0	0.0	26.0
7	8.0	14.0	27.0	4.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
8	1.0	6.0	9.0	3.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.0
9	1.0	32.0	6.0	2.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	5.0
10	1.0	13.0	1.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
11	29.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
12	2.0	0.0	2.0	0.0	1.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
14	50.0	6.0	1.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	20.0
15	14.0	19.0	13.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
16	20.0	0.0	4.0	0.0	0.0	1.0	0.0	0.0	* 0.0	0.0	0.0	0.0
17	31.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
18	5.0	23.0	10.0	1.0	0.0	0.0	9.0	0.0	* 0.0	0.0	0.0	3.0
19	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	56.0	6.0
20	43.0	0.0	1.0	0.0	0.0	1.0	4.0	0.0	* 0.0	0.0	0.0	0.0
21	10.0	22.0	0.0	0.0	0.0	11.0	0.0	0.0	* 0.0	0.0	0.0	3.0
22	0.0	0.0	0.0	0.0	0.0	2.0	0.0	8.0	* 0.7	0.0	0.0	46.0
23	9.0	0.0	0.0	5.0	17.0	0.0	0.0	3.0	* 0.0	0.0	0.0	1.0
24	26.0	6.0	0.0	0.0	0.0	0.0	0.0	33.0	* 0.0	1.0	0.0	24.0
25	13.0	23.0	0.0	0.0	2.0	6.0	0.0	0.0	* 0.0	0.0	0.0	6.0
26	22.0	8.0	1.0	3.0	45.0	1.0	0.0	0.0	* 0.0	0.0	32.0	20.0
27	24.0	0.0	0.0	12.0	16.0	0.0	0.0	0.0	* 0.0	0.0	0.0	19.0
28	0.0	35.0	0.0	2.0	8.0	1.0	0.0	0.0	* 0.0	0.0	0.0	23.0
29	50.0		3.0	1.0	0.0	0.0	0.0	0.0	* 0.0	1.0	0.0	42.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	8.0	23.0
31	0.0		0.0		0.0		0.0	0.0		0.0		11.0
<b>Max.</b>	50.0	35.0	42.0	33.0	45.0	11.0	30.0	33.0	* 0.7	6.0	56.0	46.0
<b>Total</b>	459.0	215.0	211.0	93.0	89.0	23.0	76.0	46.0	* 0.7	13.0	96.0	293.0

Annual : \* 1614.7      Max. : \* 56.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1991 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	37.0	3.0	0.0	27.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	6.0	6.0	5.0	16.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	6.0	9.0	1.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	1.0	2.0	0.0	24.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	2.0	26.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
6	3.0	1.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	17.0
7	10.0	13.0	32.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
8	9.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
9	16.0	17.0	0.0	1.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
10	8.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
11	32.0	66.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
12	8.0	15.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	1.0
13	28.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
14	35.0	3.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
15	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	9.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
18	1.0	17.0	14.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	3.0	29.0	11.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
20	30.0	21.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
21	14.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
22	1.0	2.0	5.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
23	61.0	16.0	4.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
24	29.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
25	0.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	14.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
27	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
28	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
29	4.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	34.0
30	20.0		0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
31	5.0		4.0		0.0		0.0	0.0		0.0		13.0
<b>Max.</b>	61.0	66.0	32.0	33.0	27.0	0.0	0.0	0.0	0.0	0.0	30.0	34.0
<b>Total</b>	440.0	368.0	91.0	211.0	61.0	0.0	0.0	0.0	0.0	0.0	90.0	156.0

Annual : 1417                      Max. : 66.0

Year : 1992 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.0	5.0	0.0	9.0	0.0	1.5	0.0	0.0	30.0	11.0	50.0	4.0
2	15.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	2.0	0.0	11.0
3	4.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	47.0
4	23.0	0.0	0.0	3.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	1.0
5	0.0	10.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
6	10.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	11.0
7	1.0	0.0	11.0	2.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
8	0.0	5.0	5.0	0.0	13.0	0.0	21.0	0.0	13.0	0.0	0.0	0.0
9	0.0	50.0	0.0	4.0	0.0	5.0	0.0	0.0	0.0	8.0	0.0	0.0
10	0.0	61.0	7.0	29.0	0.0	2.0	0.0	0.0	0.0	7.0	0.0	0.0
11	35.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0
12	21.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	97.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	9.0
15	1.0	11.0	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	17.0	0.0	9.0	16.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
17	0.0	27.0	17.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0
18	4.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	70.0	48.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
20	0.0	0.0	2.0	25.0	0.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	23.0	23.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	3.0	0.0
22	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
23	1.0	12.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
24	5.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	1.0	0.0	6.0	15.0	1.0	0.0	0.0	0.0	10.0	0.0	15.0	5.0
26	1.0	0.0	0.0	1.0	27.0	0.0	0.0	2.0	2.0	9.0	5.0	0.0
27	2.0	0.0	22.0	0.0	5.0	1.0	0.0	0.0	0.0	18.0	10.0	0.0
28	3.0	28.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	40.0	0.0
29	7.0	1.0	21.0	0.0	0.0	0.0	0.0	44.0	7.0	12.0	25.0	0.0
30	11.0		6.0	10.0	4.0	0.0	0.0	0.0	3.0	0.0	2.0	17.0
31	0.0		14.0		11.0		0.0	55.0		23.0		2.0
<b>Max.</b>	35.0	97.0	48.0	31.0	27.0	52.0	30.0	55.0	30.0	23.0	50.0	47.0
<b>Total</b>	179.0	461.0	247.0	181.0	61.0	61.5	51.0	101.0	104.0	122.0	245.0	110.0

Annual : 1924                      Max. : 97.0

" \* " : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT NAWANGAN**

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1993 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	2.0
2	* 0.9	24.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	* 0.0	2.0	16.0
3	* 1.4	30.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0
4	* 6.5	50.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	7.0
5	* 92.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
6	* 0.9	2.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	2.0
7	* 0.0	18.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	13.0
8	* 3.2	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
9	* 10.7	0.0	0.0	10.0	0.0	2.0	0.0	0.0	0.0	* 0.0	0.0	39.0
10	* 0.0	0.0	53.0	0.0	0.0	5.0	0.0	0.0	0.0	* 0.0	0.0	1.0
11	* 0.0	0.0	23.0	0.0	0.0	15.0	0.0	0.0	0.0	* 0.0	0.0	10.0
12	* 7.9	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	45.0
13	* 0.0	0.0	15.0	0.0	0.0	20.0	0.0	0.0	0.0	* 0.0	0.0	20.0
14	* 0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	6.0	4.0
15	* 2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0
16	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
17	* 4.2	0.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0	* 0.0	8.0	0.0
18	* 22.7	35.0	0.0	20.0	0.0	28.0	0.0	0.0	0.0	* 0.0	0.0	0.0
19	* 1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	22.0	9.0
20	* 0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	14.0
21	* 48.2	0.0	5.0	15.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	8.0
22	* 135.2	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	6.0
23	* 1.9	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	40.0
24	* 16.7	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	* 0.0	30.0	43.0
25	* 14.8	2.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	* 0.0	32.0	1.0
26	* 0.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	17.0
27	* 0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	3.0	0.0
28	* 59.3	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
29	* 0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	10.0	0.0
30	* 0.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	40.0	0.0
31	* 10.7		4.0		0.0		0.0	0.0		* 0.0		0.0
Max.	* 135.2	53.0	53.0	80.0	15.0	28.0	0.0	0.0	0.0	* 0.0	40.0	45.0
Total	* 450.0	241.0	201.0	205.0	25.0	70.0	0.0	0.0	0.0	* 0.0	153.0	303.0

Annual : \* 1648.0      Max. : \* 135.2

Year : 1994 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	5.0	8.0	17.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	1.0
2	0.0	0.0	4.0	42.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	2.0
3	0.0	2.0	7.0	1.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
4	2.0	13.0	35.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0	5.0
5	0.0	23.0	37.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
6	1.0	0.0	12.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0	0.0
7	1.0	0.0	28.0	0.0	0.0	* 1.1	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
8	17.0	0.0	37.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	35.0
9	0.0	2.0	39.0	2.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
10	0.0	6.0	0.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	10.0
11	1.0	5.0	2.0	32.0	19.0	* 0.0	* 0.0	* 0.0	* 0.0	5.0	0.0	9.0
12	0.0	1.0	49.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	2.0
13	0.0	6.0	10.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	9.0
14	28.0	0.0	6.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
15	19.0	1.0	1.0	6.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	21.0
16	16.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
17	54.0	6.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	5.0
18	0.0	1.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	1.0
19	2.0	51.0	8.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0	0.0
20	15.0	0.0	32.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0	16.0
21	7.0	4.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	5.0	0.0
22	7.0	5.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
23	55.0	0.0	5.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
24	17.0	9.0	52.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
25	23.0	11.0	36.0	17.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0	0.0
26	0.0	7.0	14.0	17.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
27	24.0	27.0	26.0	2.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	9.0	0.0
28	12.0	64.0	3.0	1.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	5.0	0.0
29	44.0		29.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
30	58.0		15.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
31	0.0		23.0	0.0	0.0		* 0.0	* 0.0		0.0		0.0
Max.	58.0	64.0	52.0	42.0	19.0	* 1.1	* 0.0	* 0.0	* 0.0	5.0	9.0	35.0
Total	403.0	249.0	518.0	143.0	19.0	* 1.1	* 0.0	* 0.0	* 0.0	5.0	38.0	116.0

Annual : \* 1492.1      Max. : \* 64.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1995 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	57.0	10.0	76.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0
2	4.0	59.0	85.0	49.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
3	25.0	6.0	31.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
4	2.0	22.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
5	1.0	0.0	11.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0
6	33.0	67.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0
7	4.0	89.0	12.0	5.0	2.0	14.0	39.0	0.0	0.0	0.0	0.0	37.0
8	5.0	34.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	43.0
9	1.0	15.0	3.0	12.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0	4.0
10	10.0	46.0	0.0	5.0	0.0	31.0	9.0	0.0	0.0	0.0	0.0	13.0
11	42.0	8.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	7.0
12	0.0	18.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	2.0	0.0	0.0
13	6.0	17.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
14	1.0	21.0	53.0	0.0	0.0	0.0	4.0	0.0	0.0	3.0	0.0	8.0
15	2.0	12.0	3.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	3.0	64.0
16	0.0	2.0	27.0	12.0	0.0	13.0	0.0	0.0	0.0	8.0	42.0	3.0
17	21.0	12.0	42.0	11.0	0.0	0.0	0.0	0.0	0.0	2.0	50.0	8.0
18	35.0	2.0	14.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	7.0
19	58.0	21.0	77.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	36.0	0.0
20	2.0	49.0	12.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	11.0	15.0
21	26.0	41.0	0.0	0.0	0.0	6.0	32.0	0.0	0.0	0.0	47.0	0.0
22	36.0	0.0	17.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	1.0
23	2.0	22.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	14.0
24	5.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0
25	27.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	14.0	0.0
26	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	8.0	2.0
27	0.0	59.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	64.0	2.0	0.0
28	6.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
29	28.0		13.0	19.0	0.0	0.0	0.0	0.0	0.0	2.0	10.0	0.0
30	6.0		26.0	10.0	0.0	0.0	0.0	0.0	2.0	0.0	21.0	0.0
31	1.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	58.0	89.0	85.0	76.0	2.0	31.0	39.0	0.0	2.0	64.0	61.0	64.0
Total	391.0	730.0	485.0	253.0	5.0	105.0	117.0	0.0	2.0	124.0	356.0	320.0

Annual : 2888      Max. : 89.0

Year : 1996 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	4.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	3.0
2	36.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
3	7.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	0.0	1.0
4	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	1.0
5	7.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
6	11.0	18.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0
7	3.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
8	2.0	44.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0
9	1.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
10	0.0	21.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
11	0.0	0.0	0.0	21.0	0.0	0.0	0.0	38.0	0.0	0.0	0.0	40.0
12	0.0	52.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
13	43.0	45.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
14	0.0	0.0	17.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
15	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	11.0	3.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	4.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
18	2.0	21.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	27.0	0.0
20	1.0	0.0	6.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	2.0
21	73.0	6.0	6.0	20.0	0.0	0.0	0.0	0.0	0.0	17.0	26.0	2.0
22	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	9.0	5.0
23	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	1.0
24	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
26	1.0	7.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	0.0	0.0
27	83.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	29.0
28	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0	12.0
29	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	2.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	83.0	52.0	29.0	21.0	0.0	0.0	0.0	38.0	0.0	45.0	37.0	50.0
Total	369.0	359.0	98.0	85.0	0.0	0.0	0.0	38.0	0.0	221.0	131.0	230.0

Annual : 1531      Max. : 83.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1997 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	1.0	4.0	13.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	6.0	6.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
3	0.0	5.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
4	0.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	7.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	18.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	6.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	9.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	10.0	3.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	5.0	7.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	6.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
17	15.0	4.0	12.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
18	30.0	6.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	3.0	40.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	2.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
21	0.0	10.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
22	27.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
23	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0
24	35.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
25	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
26	3.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
27	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
30	0.0		0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	35.0	40.0	12.0	40.0	29.0	0.0	0.0	0.0	0.0	0.0	6.0	36.0
<b>Total</b>	185.0	150.0	51.0	224.0	42.0	0.0	0.0	0.0	0.0	0.0	6.0	168.0

Annual : 826                      Max. : 40.0

Year : 1998 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	7.0	71.0	7.0	0.0	8.0	0.0	0.0	0.0	12.0	7.0
2	0.0	0.0	0.0	10.0	1.0	1.0	8.0	0.0	0.0	0.0	3.0	0.0
3	0.0	8.0	62.0	0.0	2.0	0.0	0.0	0.0	0.0	9.0	35.0	0.0
4	0.0	1.0	40.0	0.0	0.0	2.0	0.0	0.0	0.0	10.0	3.0	0.0
5	0.0	0.0	46.0	0.0	6.0	8.0	1.0	0.0	0.0	0.0	4.0	0.0
6	1.0	0.0	2.0	2.0	0.0	8.0	0.0	0.0	0.0	7.0	30.0	0.0
7	8.0	0.0	0.0	0.0	0.0	3.0	1.0	0.0	0.0	20.0	42.0	0.0
8	5.0	0.0	0.0	1.0	0.0	7.0	5.0	0.0	0.0	5.0	24.0	25.0
9	3.0	0.0	15.0	0.0	0.0	0.0	3.0	0.0	0.0	27.0	47.0	32.0
10	23.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	35.0	0.0
11	0.0	0.0	28.0	0.0	0.0	0.0	1.0	0.0	0.0	30.0	18.0	21.0
12	0.0	0.0	6.0	0.0	0.0	20.0	12.0	0.0	0.0	13.0	45.0	32.0
13	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	42.0	1.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	19.0
15	27.0	58.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	21.0	0.0	34.0
16	2.0	0.0	5.0	0.0	0.0	33.0	0.0	0.0	0.0	19.0	0.0	36.0
17	11.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
18	49.0	0.0	5.0	0.0	0.0	0.0	6.0	0.0	0.0	5.0	0.0	34.0
19	0.0	21.0	102.0	62.0	0.0	27.0	0.0	0.0	0.0	8.0	0.0	29.0
20	6.0	27.0	2.0	3.0	0.0	12.0	2.0	0.0	0.0	29.0	0.0	36.0
21	4.0	34.0	3.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
22	0.0	0.0	0.0	3.0	0.0	10.0	4.0	0.0	2.0	24.0	0.0	29.0
23	0.0	19.0	24.0	1.0	0.0	66.0	0.0	0.0	0.0	0.0	0.0	55.0
24	1.0	0.0	52.0	1.0	0.0	0.0	3.0	5.0	0.0	15.0	0.0	0.0
25	0.0	0.0	5.0	1.0	0.0	1.0	3.0	0.0	0.0	5.0	0.0	0.0
26	0.0	3.0	11.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
27	19.0	34.0	22.0	1.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0
28	10.0	2.0	0.0	6.0	6.0	12.0	0.0	0.0	65.0	0.0	0.0	0.0
29	1.0		3.0	52.0	0.0	1.0	0.0	0.0	23.0	8.0	18.0	38.0
30	9.0		6.0	10.0	0.0	2.0	5.0	0.0	0.0	7.0	0.0	11.0
31	0.0		0.0		0.0		0.0	0.0		12.0		4.0
<b>Max.</b>	49.0	58.0	102.0	71.0	7.0	66.0	12.0	5.0	65.0	30.0	47.0	55.0
<b>Total</b>	179.0	210.0	501.0	236.0	22.0	214.0	78.0	5.0	90.0	278.0	316.0	492.0

Annual : 2621                      Max. : 102.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 1999 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	26.0	2.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
3	56.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0
4	16.0	0.0	0.0	0.0	14.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	17.0	22.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	4.0	20.0	0.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	30.0	61.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	20.0	16.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	27.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
12	4.0	42.0	30.0	0.0	51.0	0.0	0.0	0.0	0.0	15.0	0.0	44.0
13	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	12.0	18.0	57.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0
15	9.0	13.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	30.0
16	11.0	0.0	6.0	9.0	27.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
17	0.0	0.0	35.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0
18	0.0	40.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	16.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
21	0.0	17.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	56.0	22.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.0	0.0
23	8.0	4.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
24	49.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	8.0	26.0
25	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
26	7.0	5.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
28	0.0	60.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	20.0		2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	9.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	56.0	60.0	61.0	62.0	51.0	7.0	0.0	0.0	0.0	17.0	77.0	47.0
Total	320.0	404.0	406.0	215.0	100.0	7.0	0.0	0.0	0.0	40.0	154.0	228.0

Annual : 1874      Max. : 77.0

Year : 2000 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	13.0	35.0	15.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	8.0
2	0.0	21.0	30.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	1.0	2.0
3	0.0	48.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	17.0	10.0	0.0	59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	52.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	41.0	10.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	30.0	9.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	24.0	4.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	45.0	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	22.0	0.0
10	10.0	0.0	18.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0
11	0.0	2.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	40.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
13	0.0	8.0	35.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	7.0	0.0	16.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	18.0
15	1.0	4.0	0.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
16	3.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	5.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
19	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	84.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	16.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	5.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	75.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	7.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0
26	0.0	8.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0
27	6.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	6.0
29	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	13.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	10.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	13.0	84.0	40.0	30.0	59.0	7.0	5.0	0.0	0.0	13.0	40.0	18.0
Total	50.0	524.0	270.0	143.0	65.0	13.0	5.0	0.0	0.0	21.0	121.0	58.0

Annual : 1270      Max. : 84.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NAWANGAN

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 2001 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
3	0.0	26.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	18.0	52.0	0.0	25.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0
5	3.0	17.0	0.0	23.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
6	16.0	1.0	0.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0
7	4.0	44.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
8	15.0	17.0	3.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
9	3.0	23.0	2.0	0.0	0.0	6.0	0.0	0.0	0.0	4.0	0.0	0.0
10	0.0	14.0	5.0	28.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
11	7.0	13.0	5.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0
12	3.0	0.0	45.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	1.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0
15	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
16	9.0	1.0	0.0	5.0	0.0	0.0	8.0	0.0	0.0	1.0	12.0	0.0
17	6.0	7.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	11.0	0.0
18	21.0	29.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	25.0	0.0
19	14.0	1.0	4.0	0.0	7.0	0.0	0.0	0.0	0.0	1.0	5.0	0.0
20	0.0	19.0	0.0	0.0	12.0	0.0	7.0	0.0	0.0	0.0	27.0	0.0
21	1.0	1.0	18.0	0.0	0.0	0.0	3.0	0.0	0.0	1.0	3.0	0.0
22	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0
23	1.0	0.0	2.0	0.0	0.0	0.0	10.0	0.0	0.0	8.0	0.0	0.0
24	39.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
25	0.0	0.0	5.0	0.0	0.0	2.0	0.0	0.0	0.0	4.0	0.0	0.0
26	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
27	37.0	0.0	68.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	6.0	0.0
28	29.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
29	0.0		14.0	0.0	10.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
30	37.0		37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0
31	2.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	39.0	52.0	68.0	28.0	12.0	26.0	10.0	0.0	0.0	40.0	27.0	0.0
Total	304.0	268.0	264.0	91.0	29.0	79.0	39.0	0.0	0.0	115.0	117.0	0.0

Annual : 1306 Max. : 68.0

Year : 2002 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	32.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
3	4.0	0.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
5	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	12.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
8	0.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0
9	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
10	0.0	26.0	6.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	12.0	3.0	0.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0
12	0.0	0.0	68.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
13	0.0	12.0	24.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
14	0.0	37.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
15	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
16	0.0	0.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	36.0
17	0.0	7.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
18	6.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	8.0	16.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
20	5.0	4.0	14.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	33.0
21	6.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0
22	16.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
23	10.0	10.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
24	18.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0
25	11.0	6.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	4.0
26	33.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
27	57.0	0.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	12.0
30	63.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
31	36.0		0.0		2.0		0.0	0.0		0.0		21.0
Max.	63.0	65.0	68.0	27.0	58.0	0.0	0.0	0.0	0.0	0.0	62.0	37.0
Total	308.0	430.0	269.0	92.0	62.0	0.0	0.0	0.0	0.0	0.0	76.0	368.0

Annual : 1605 Max. : 68.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT NAWANGAN**

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 2003 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.0	10.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	10.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
3	39.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	8.0
4	41.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	17.0
5	39.0	14.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	7.0
6	3.0	1.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
7	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
9	0.0	0.0	45.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0
10	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
11	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	19.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	8.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	9.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
18	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0
19	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	25.0
20	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	11.0
21	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	16.0
22	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
24	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
25	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	8.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	15.0
27	2.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	11.0
28	3.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	11.0
29	6.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
30	2.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	25.0
31	0.0		0.0		0.0		0.0	0.0		0.0		20.0
Max.	41.0	21.0	56.0	10.0	25.0	3.0	0.0	0.0	0.0	0.0	49.0	37.0
Total	167.0	247.0	132.0	12.0	28.0	3.0	0.0	0.0	0.0	0.0	212.0	248.0

Annual : 1049 Max. : 56.0

Year : 2004 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
2	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
3	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
4	2.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
5	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	not yet	not yet
6	0.0	10.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
7	0.0	15.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
8	0.0	7.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
9	0.0	9.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
10	5.0	20.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
11	20.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
13	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
14	2.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
15	0.0	25.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
16	19.0	30.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
17	22.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
18	17.0	45.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
19	11.0	0.0	17.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
20	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
21	2.0	0.0	12.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
22	0.0	10.0	10.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
23	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
24	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
25	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
26	15.0	0.0	3.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
27	7.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
28	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
30	0.0		0.0	0.0	29.0	0.0	0.0	0.0	0.0	0.0	not yet	not yet
31	8.0		0.0		0.0		0.0	0.0		0.0		not yet
Max.	22.0	45.0	38.0	1.0	29.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	178.0	202.0	219.0	1.0	93.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0

Annual : 698 Max. : 45.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT NAWANGAN**

Station No. : 3a  
 Basin : Upper Solo  
 Elevation : 230 m

Year : 2005 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	4.0	1.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	25.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	1.0	18.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	5.0	0.0	8.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	11.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	6.0	29.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	13.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	6.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	20.0	30.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0
21	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	28.0	0.0	0.0	0.0	0.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0
23	24.0	27.0	0.0	0.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0
24	18.0	0.0	0.0	0.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	13.0	19.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	14.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
29	15.0		10.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0
30	21.0		15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	22.0		0.0		0.0		0.0	0.0		0.0		
<b>Max.</b>	28.0	31.0	29.0	55.0	0.0	47.0	4.0	0.0	16.0	0.0	0.0	
<b>Total</b>	229.0	182.0	168.0	148.0	0.0	194.0	4.0	0.0	16.0	0.0	0.0	

Annual : 941                      Max. : 55.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT NGANCAR**

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1975 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 4.0	* 7.0	* 5.0	* 45.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 85.0	* 1.0	* 0.0
2	* 0.0	* 22.0	* 8.0	* 24.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 42.0
3	* 1.0	* 184.0	* 8.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 14.0	* 23.0	* 0.0
4	* 0.0	* 3.0	* 14.0	* 0.0	* 3.0	* 0.0	* 0.0	* 0.0	* 0.0	* 7.0	* 2.0	* 16.0
5	* 32.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 34.0	* 8.0	* 47.0
6	* 16.0	* 23.0	* 5.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 51.0	* 17.0	* 3.0
7	* 1.0	* 22.0	* 1.0	* 1.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 22.0	* 12.0	* 8.0
8	* 40.0	* 15.0	* 22.0	* 10.0	* 6.0	* 0.0	* 0.0	* 0.0	* 10.0	* 0.0	* 1.0	* 0.0
9	* 6.0	* 40.0	* 28.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 8.0	* 0.0	* 34.0
10	* 13.0	* 2.0	* 1.0	* 1.0	* 62.0	* 0.0	* 0.0	* 0.0	* 63.0	* 3.0	* 9.0	* 7.0
11	* 2.0	* 7.0	* 23.0	* 0.0	* 22.0	* 0.0	* 0.0	* 0.0	* 39.0	* 0.0	* 0.0	* 13.0
12	* 31.0	* 0.0	* 11.0	* 12.0	* 2.0	* 0.0	* 0.0	* 0.0	* 0.0	* 36.0	* 8.0	* 14.0
13	* 20.0	* 31.0	* 19.0	* 0.0	* 0.0	* 0.0	* 3.0	* 0.0	* 47.0	* 3.0	* 0.0	* 37.0
14	* 15.0	* 2.0	* 6.0	* 28.0	* 34.0	* 0.0	* 0.0	* 0.0	* 5.0	* 0.0	* 5.0	* 39.0
15	* 0.0	* 40.0	* 7.0	* 6.0	* 2.0	* 0.0	* 0.0	* 0.0	* 12.0	* 0.0	* 12.0	* 10.0
16	* 1.0	* 42.0	* 41.0	* 32.0	* 21.0	* 0.0	* 0.0	* 1.0	* 4.0	* 0.0	* 0.0	* 9.0
17	* 27.0	* 5.0	* 0.0	* 0.0	* 12.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0
18	* 6.0	* 0.0	* 0.0	* 6.0	* 13.0	* 0.0	* 0.0	* 0.0	* 0.0	* 16.0	* 0.0	* 2.0
19	* 0.0	* 3.0	* 4.0	* 34.0	* 0.0	* 0.0	* 0.0	* 0.0	* 33.0	* 8.0	* 3.0	* 3.0
20	* 1.0	* 11.0	* 75.0	* 2.0	* 0.0	* 2.6	* 0.0	* 0.0	* 0.0	* 42.0	* 0.0	* 0.0
21	* 3.0	* 24.0	* 5.0	* 0.0	* 2.0	* 0.0	* 0.0	* 0.0	* 0.0	* 43.0	* 1.0	* 0.0
22	* 0.0	* 2.0	* 43.0	* 2.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 19.0	* 0.0	* 0.0
23	* 4.0	* 2.0	* 37.0	* 1.0	* 47.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 1.0	* 0.0
24	* 0.0	* 12.0	* 7.0	* 11.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 16.0	* 1.0	* 0.0
25	* 0.0	* 7.0	* 9.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 14.0	* 0.0	* 9.0
26	* 5.0	* 3.0	* 69.0	* 0.0	* 5.0	* 0.0	* 0.0	* 0.0	* 0.0	* 8.0	* 7.0	* 0.0
27	* 36.0	* 28.0	* 4.0	* 14.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 4.0	* 0.0
28	* 4.0	* 1.0	* 17.0	* 35.0	* 0.0	* 0.0	* 0.0	* 0.0	* 34.0	* 9.0	* 42.0	* 0.0
29	* 57.0		* 18.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 4.0	* 19.0	* 0.0	* 39.0
30	* 15.0		* 60.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 0.0	* 15.0
31	* 5.0		* 0.0		* 0.0		* 0.0	* 0.0				* 3.0
Max.	* 57.0	* 184.0	* 75.0	* 45.0	* 62.0	* 2.6	* 3.0	* 1.0	* 63.0	* 85.0	* 42.0	* 47.0
Total	* 345.0	* 538.0	* 547.0	* 264.0	* 231.0	* 2.6	* 3.0	* 1.0	* 251.0	* 457.0	* 157.0	* 350.0

Annual : \* 3146.6      Max. : \* 184.0

Year : 1976 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	4.0	7.0	5.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 13.0
2	3.0	3.0	78.0	0.0	* 1.9	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 0.0
3	33.0	2.0	3.0	45.0	* 0.0	0.0	0.0	* 8.3	* 0.0	0.0	0.0	* 101.0
4	95.0	20.0	0.0	40.0	* 0.0	0.0	1.0	* 0.0	* 0.0	0.0	0.0	* 4.0
5	24.0	0.0	0.0	3.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 1.0
6	24.0	27.0	1.0	0.0	* 3.2	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 0.0
7	3.0	0.0	19.0	0.0	* 16.7	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 0.0
8	18.0	6.0	14.0	0.0	* 12.2	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 0.0
9	13.0	2.0	6.0	0.0	* 7.7	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 0.0
10	4.0	9.0	41.0	0.0	* 2.6	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 0.0
11	16.0	5.0	1.0	0.0	* 0.0	10.0	0.0	* 0.0	* 0.0	0.0	0.0	* 1.0
12	16.0	18.0	0.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	9.0	0.0	* 0.0
13	14.0	0.0	9.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	16.0	0.0	* 1.0
14	11.0	0.0	1.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	2.0	2.0	* 2.0
15	34.0	0.0	15.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	8.0	0.0	* 71.0
16	35.0	6.0	3.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	23.0	0.0	* 0.0
17	25.0	1.0	0.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	64.0	* 0.0
18	10.0	16.0	6.0	1.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	* 0.0
19	17.0	9.0	23.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	13.0	* 0.0
20	13.0	9.0	14.0	1.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	35.0	* 0.0
21	6.0	1.0	0.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	66.0	* 0.0
22	43.0	8.0	0.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	1.0	8.0	* 0.0
23	35.0	8.0	0.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	3.0	7.0	* 0.0
24	6.0	1.0	0.0	1.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	2.0	* 0.0
25	22.0	4.0	0.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	0.0	20.0	* 0.0
26	1.0	15.0	61.0	0.0	* 0.0	0.0	0.0	* 1.9	* 1.9	7.0	66.0	* 4.0
27	0.0	2.0	0.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	14.0	13.0	* 14.0
28	0.0	23.0	0.0	0.0	* 0.0	0.0	0.0	* 6.4	* 0.0	0.0	0.0	* 9.0
29	0.0	0.0	6.0	1.0	* 0.0	0.0	0.0	* 0.0	* 6.4	0.0	0.0	* 33.0
30	0.0		0.0	0.0	* 0.0	0.0	0.0	* 0.0	* 0.0	5.0	15.0	* 0.0
31	0.0		84.0		* 5.1		0.0	* 0.0		35.0		* 0.0
Max.	95.0	27.0	84.0	45.0	* 16.7	10.0	1.0	* 8.3	* 6.4	35.0	66.0	* 101.0
Total	521.0	199.0	392.0	97.0	* 49.4	10.0	1.0	* 16.7	* 8.3	123.0	311.0	* 254.0

Annual : \* 1982.5      Max. : \* 101.0

\*\* : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT NGANCAR**

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1977 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 0.0	5.0	6.0	98.0	0.0	63.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.0
2	* 0.0	18.0	4.0	73.0	0.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
3	* 13.0	16.0	28.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
4	* 0.0	61.0	16.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	* 46.0	9.0	1.0	7.0	0.0	9.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	40.0
6	* 0.0	9.0	29.0	13.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	20.0
7	* 0.0	0.0	19.0	74.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
8	0.0	35.0	43.0	8.0	8.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	11.0
9	* 0.0	0.0	1.0	23.0	0.0	80.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	61.0
10	* 0.0	5.0	0.0	37.0	0.0	60.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	19.0
11	* 0.0	20.0	0.0	0.0	0.0	11.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0
12	* 0.0	16.0	13.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0
13	* 6.0	14.0	1.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
14	* 0.0	35.0	16.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
15	* 0.0	10.0	1.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	8.0	0.0
16	* 0.0	0.0	13.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
17	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
18	* 36.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	* 119.0	4.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	57.0	0.0
20	* 18.0	14.0	1.0	0.0	0.0	26.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	0.0
21	* 30.0	55.0	14.0	12.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
22	* 35.0	17.0	42.0	0.0	5.0	26.0	* 0.0	* 0.0	* 0.0	* 0.0	33.0	0.0
23	* 22.0	36.0	0.0	10.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
24	* 40.0	9.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
25	* 0.0	7.0	5.0	8.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	54.0
26	* 0.0	96.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	16.0
27	* 0.0	23.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
28	* 0.0	1.0	0.0	5.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
29	* 0.0		22.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
30	* 0.0		48.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.0
31	* 8.0		12.0		39.0		* 0.0	* 0.0		* 0.0		39.0
Max.	* 119.0	96.0	48.0	98.0	39.0	80.0	* 0.0	* 0.0	* 0.0	* 0.0	57.0	61.0
Total	* 373.0	515.0	335.0	369.0	52.0	278.0	* 0.0	* 0.0	* 0.0	* 0.0	105.0	287.0

Annual : \* 2314.0      Max. : \* 119.0

Year : 1978 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.0	6.0	1.0	0.0	5.0	0.0	36.0	48.0	0.0	0.0	0.0	43.0
2	3.0	3.0	0.0	53.0	0.0	0.0	7.0	0.0	17.0	0.0	0.0	8.0
3	1.0	13.0	2.0	0.0	0.0	8.0	3.0	1.0	14.0	13.0	0.0	50.0
4	16.0	7.0	0.0	1.0	38.0	21.0	40.0	7.0	0.0	0.0	0.0	1.0
5	6.0	3.0	24.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	11.0	24.0	0.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	30.0	0.0
7	0.0	0.0	27.0	0.0	0.0	1.0	8.0	0.0	0.0	0.0	9.0	0.0
8	2.0	0.0	24.0	5.0	0.0	30.0	7.0	0.0	2.0	0.0	1.0	2.0
9	32.0	0.0	0.0	18.0	0.0	11.0	6.0	0.0	1.0	0.0	3.0	11.0
10	3.0	0.0	3.0	0.0	0.0	2.0	0.0	0.0	1.0	0.0	16.0	0.0
11	8.0	1.0	44.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0
12	27.0	0.0	15.0	14.0	1.0	0.0	13.0	0.0	0.0	0.0	2.0	33.0
13	0.0	0.0	27.0	0.0	2.0	91.0	0.0	0.0	0.0	0.0	9.0	25.0
14	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
15	0.0	0.0	67.0	0.0	12.0	0.0	0.0	0.0	0.0	1.0	1.0	22.0
16	20.0	4.0	9.0	0.0	0.0	0.0	0.0	21.0	0.0	0.0	24.0	0.0
17	9.0	0.0	53.0	20.0	4.0	0.0	0.0	0.0	0.0	7.0	8.0	1.0
18	53.0	0.0	13.0	6.0	0.0	12.0	0.0	0.0	0.0	22.0	18.0	0.0
19	25.0	25.0	9.0	0.0	1.0	0.0	0.0	18.0	27.0	5.0	0.0	0.0
20	1.0	12.0	1.0	0.0	13.0	1.0	0.0	0.0	0.0	7.0	3.0	5.0
21	6.0	10.0	5.0	0.0	3.0	0.0	2.0	0.0	0.0	8.0	5.0	1.0
22	33.0	2.0	4.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
23	29.0	1.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
24	12.0	3.0	3.0	10.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	2.0
25	3.0	23.0	0.0	1.0	0.0	42.0	0.0	0.0	0.0	4.0	4.0	14.0
26	28.0	8.0	10.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
27	12.0	5.0	4.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	10.0	16.0
28	2.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	14.0
29	25.0		6.0	2.0	0.0	61.0	0.0	0.0	0.0	1.0	7.0	0.0
30	24.0		27.0	1.0	12.0	0.0	0.0	0.0	0.0	0.0	26.0	28.0
31	0.0		0.0		0.0		0.0	0.0		8.0		39.0
Max.	53.0	25.0	67.0	53.0	38.0	91.0	40.0	48.0	27.0	22.0	30.0	50.0
Total	392.0	150.0	386.0	152.0	94.0	283.0	124.0	95.0	62.0	86.0	187.0	351.0

Annual : 2,362      Max. : 91.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1979 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	14.0	0.0	63.0	21.0	54.0	38.0	0.0	0.0	0.0	0.0	0.0	3.0
2	3.0	0.0	0.0	12.0	8.0	11.0	0.0	0.0	0.0	0.0	0.0	41.0
3	1.0	67.0	4.0	22.0	13.0	7.0	2.0	0.0	0.0	0.0	67.0	0.0
4	8.0	18.0	0.0	0.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
5	0.0	0.0	2.0	22.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0
6	5.0	3.0	4.0	12.0	2.0	0.0	0.0	0.6	0.0	0.0	0.0	59.0
7	24.0	53.0	13.0	11.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	2.0
8	8.0	2.0	16.0	9.0	2.0	2.0	0.0	33.4	0.0	1.0	0.0	2.0
9	6.0	1.0	22.0	17.0	2.0	37.0	0.0	0.0	0.0	0.0	0.0	6.0
10	6.0	4.0	26.0	0.0	1.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0
11	14.0	0.0	4.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
12	1.0	10.0	20.0	52.0	0.0	0.0	0.0	0.0	1.9	0.0	1.0	0.0
13	27.0	1.0	10.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	35.0	6.0	4.0	9.0	8.0	0.0	0.0	0.0	1.3	0.0	4.0	0.0
15	4.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
16	72.0	19.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	3.0	14.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	14.0	3.0
18	16.0	1.0	24.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
19	36.0	18.0	18.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0
20	5.0	21.0	47.0	57.0	1.0	0.0	0.0	0.0	3.9	0.0	0.0	3.0
21	33.0	4.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
22	2.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0	78.0
23	2.0	0.0	5.0	27.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	58.0
24	12.0	30.0	1.0	11.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	18.0
25	21.0	27.0	12.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	72.0
26	0.0	25.0	8.0	19.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	57.0
27	0.0	12.0	8.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	9.0	12.0	1.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0
29	0.0		2.0	60.0	1.0	0.0	0.0	0.0	21.8	13.0	0.0	5.0
30	0.0		9.0	0.0	0.0	0.0	0.0	0.0	1.3	34.0	6.0	4.0
31	0.0		0.0		7.0		0.0	0.0		0.0		5.0
<b>Max.</b>	72.0	67.0	63.0	60.0	54.0	38.0	2.0	33.4	21.8	61.0	67.0	78.0
<b>Total</b>	358.0	345.0	335.0	420.0	216.0	95.0	2.0	40.4	55.2	109.0	114.0	579.0

Annual : 2669      Max. : 78.0

Year : 1980 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	24.0	4.0	5.0	1.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
2	7.0	54.0	0.0	1.0	0.0	0.0	0.0	4.0	0.0	0.0	14.0	55.0
3	15.0	0.0	0.0	26.0	15.0	0.0	0.0	0.0	0.0	0.0	2.0	20.0
4	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.0
5	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	8.0	3.0
6	10.0	55.0	0.0	7.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	4.0	0.0	19.0	1.0	66.0	0.0	1.0	5.0	0.0	0.0	1.0	0.0
8	36.0	14.0	1.0	6.0	0.0	0.0	0.0	3.0	0.0	0.0	7.0	45.0
9	43.0	5.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.0
10	12.0	61.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
11	13.0	21.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
12	19.0	8.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0
13	11.0	0.0	2.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	6.0	2.0	24.0	12.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
15	0.0	10.0	17.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
16	0.0	0.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
17	2.0	0.0	3.0	17.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	3.0
18	5.0	15.0	12.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0	0.0	0.0
19	33.0	33.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	1.0
20	4.0	54.0	0.0	5.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
21	18.0	63.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	26.0
22	1.0	36.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
23	5.0	38.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	10.0
24	17.0	3.0	8.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	12.0	1.0
25	15.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	3.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	6.0	4.0
27	0.0	1.0	0.0	9.0	0.0	0.0	0.0	0.0	27.0	0.0	15.0	1.0
28	39.0	36.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	23.0	58.0
29	51.0	5.0	26.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
30	40.0		17.0	23.0	0.0	0.0	1.0	0.0	0.0	4.0	3.0	61.0
31	1.0		1.0		0.0		0.0	0.0		28.0		1.0
<b>Max.</b>	51.0	63.0	43.0	46.0	66.0	6.0	1.0	6.0	27.0	28.0	23.0	61.0
<b>Total</b>	431.0	531.0	203.0	270.0	101.0	7.0	3.0	20.0	27.0	49.0	172.0	388.0

Annual : 2202      Max. : 66.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1981 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.0	0.0	25.0	10.0	10.0	0.0	1.0	0.0	0.0	0.0	11.0	6.0
2	19.0	4.0	0.0	0.0	2.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
3	2.0	42.0	28.0	7.0	1.0	0.0	0.0	0.0	14.0	26.0	0.0	7.0
4	0.0	20.0	1.0	6.0	0.0	0.0	7.0	0.0	0.0	4.0	0.0	37.0
5	33.0	20.0	1.0	0.0	10.0	0.0	6.0	0.0	0.0	4.0	2.0	19.0
6	25.0	11.0	1.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	7.0
7	22.0	18.0	4.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
8	17.0	5.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	2.0
9	21.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	33.0
10	6.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	5.0	6.0	1.0
11	0.0	0.0	87.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	6.0
12	9.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
13	5.0	3.0	0.0	1.0	0.0	0.0	11.0	0.0	0.0	0.0	56.0	5.0
14	2.0	76.0	11.0	2.0	22.0	3.0	0.0	0.0	0.0	0.0	0.0	62.0
15	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	6.0	7.0	2.0
16	13.0	0.0	6.0	11.0	0.0	0.0	8.0	0.0	0.0	0.0	41.0	0.0
17	50.0	63.0	16.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	7.0	0.0
18	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	1.0	49.0	0.0	16.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	4.0
20	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0
21	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	6.0	3.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0
23	3.0	2.0	0.0	1.0	0.0	21.0	0.0	0.0	0.0	3.0	5.0	0.0
24	14.0	19.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	13.0
25	2.0	0.0	67.0	44.0	0.0	0.0	0.0	0.0	5.0	3.0	1.0	11.0
26	27.0	3.0	43.0	5.0	0.0	22.0	0.0	0.0	17.0	0.0	5.0	0.0
27	44.0	8.0	19.0	0.0	0.0	2.0	0.0	0.0	31.0	0.0	46.0	0.0
28	0.0	2.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	49.0	0.0
29	24.0		19.0	0.0	14.0	0.0	0.0	0.0	0.0	5.0	36.0	0.0
30	0.0		0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	26.0	5.0
31	30.0		17.0		0.0		0.0	0.0		0.0		2.0
Max.	50.0	76.0	87.0	47.0	22.0	23.0	11.0	4.0	31.0	26.0	56.0	62.0
Total	378.0	382.0	383.0	150.0	71.0	76.0	51.0	7.0	69.0	69.0	314.0	245.0

Annual : 2195                      Max. : 87.0

Year : 1982 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	11.0	0.0	4.0	5.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	2.0	14.0	2.0	9.0	3.9	0.0	0.0	0.0	0.0	0.0	3.0	0.0
4	0.0	1.0	14.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
5	2.0	29.0	6.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	40.0	83.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	28.0	14.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
8	6.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
9	2.0	21.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	16.0
10	2.0	1.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
11	21.0	8.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
12	33.0	54.0	11.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
13	0.0	9.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	3.0
14	0.0	2.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
15	0.0	44.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	33.0	16.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
17	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	3.9	0.0	15.0	0.0	0.0	0.0	0.0	2.0
20	20.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
21	28.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
22	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.0
24	0.0	49.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	1.0	22.0	29.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	30.0
26	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	6.0
27	2.0	5.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	67.0
28	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
29	30.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
30	31.0		0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.2	0.0	12.0
31	0.0		0.0		0.6		0.0	0.0		0.6		2.0
Max.	40.0	83.0	31.0	25.0	12.2	1.0	15.0	0.0	0.6	3.2	37.0	67.0
Total	319.0	389.0	135.0	108.0	23.8	1.0	15.0	0.0	1.9	3.9	51.0	424.0

Annual : 1472                      Max. : 83.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1983 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	58.0	12.0	0.0	37.0	2.0	0.0	0.0	0.0	0.0	0.0	23.0	9.0
2	0.0	2.0	36.0	0.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	36.0	27.0	2.0	62.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	5.0	1.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	7.0	2.0	0.0
5	62.0	37.0	0.0	8.0	9.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
6	27.0	0.0	0.0	15.0	74.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	3.0	4.0	0.0	1.0	12.0	0.0	0.0	0.0	0.0	0.0	11.0	1.0
8	18.0	30.0	1.0	18.0	8.0	0.0	0.0	0.0	0.0	0.0	26.0	0.0
9	2.0	0.0	26.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	1.0	0.0	10.0	1.0	2.0	34.0	0.0	0.0	0.0	0.0	3.0	0.0
11	0.0	0.0	0.0	2.0	17.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0
12	10.0	3.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.0
13	5.0	4.0	29.0	6.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0
14	4.0	4.0	0.0	53.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
15	0.0	0.0	7.0	0.0	19.0	0.0	0.0	0.0	0.0	2.0	0.0	32.0
16	0.0	20.0	9.0	0.0	1.0	0.0	0.0	0.0	0.0	2.0	3.0	0.0
17	0.0	11.0	0.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
18	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	11.0	0.0
19	2.0	0.0	5.0	0.0	29.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
20	0.0	35.0	10.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	28.0	0.0
21	4.0	7.0	7.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
22	0.0	0.0	25.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	11.0	13.0
23	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	16.0	2.0	0.0
24	0.0	0.0	4.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	30.0	40.0
25	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	20.0	3.0
26	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	69.0	38.0
27	0.0	0.0	19.0	11.0	1.0	0.0	0.0	0.0	0.0	20.0	24.0	27.0
28	0.0	8.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	1.0	39.0
29	6.0		0.0	3.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
30	50.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.0	31.0	0.0
31	0.0		25.0		0.0		0.0	0.0		0.0		0.0
Max.	62.0	37.0	36.0	62.0	74.0	34.0	0.0	0.0	0.0	38.0	69.0	40.0
Total	293.0	215.0	221.0	229.0	347.0	34.0	0.0	0.0	0.0	135.0	344.0	207.0

Annual : 2025      Max. : 74.0

Year : 1984 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	29.0	84.0	3.0	0.0	0.0	24.0	0.0	0.0	0.0	13.0	49.0
2	9.0	13.0	1.0	62.0	0.0	0.0	0.0	0.0	0.0	7.0	2.0	14.0
3	41.0	73.0	8.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	7.0	75.0	5.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	24.0
5	52.0	23.0	11.0	19.0	0.0	0.0	0.0	0.0	41.0	0.0	2.0	0.0
6	1.0	6.0	11.0	8.0	13.0	0.0	0.0	0.0	6.0	0.0	0.0	27.0
7	12.0	8.0	19.0	3.0	1.0	0.0	0.0	0.0	7.0	27.0	0.0	17.0
8	0.0	2.0	6.0	4.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
9	13.0	0.0	12.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
10	0.0	0.0	7.0	13.0	0.0	10.0	0.0	0.0	4.0	0.0	32.0	0.0
11	60.0	32.0	21.0	91.0	1.0	0.0	0.0	0.0	22.0	0.0	0.0	44.0
12	8.0	36.0	9.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	5.0
13	20.0	14.0	0.0	11.0	36.0	0.0	0.0	0.0	1.0	42.0	0.0	19.0
14	8.0	0.0	2.0	0.0	45.0	0.0	0.0	0.0	16.0	0.0	1.0	1.0
15	0.0	2.0	55.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	24.0
16	8.0	0.0	15.0	16.0	9.0	0.0	0.0	0.0	0.0	3.0	5.0	20.0
17	24.0	31.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	11.0
18	0.0	0.0	1.0	26.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0
19	0.0	10.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
20	19.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	8.0	32.0	10.0	3.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	1.0
22	0.0	30.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	22.0	0.0
23	2.0	14.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	35.0	9.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	43.0	14.0
25	46.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0
26	5.0	0.0	0.0	34.0	0.0	0.0	0.0	8.0	0.0	0.0	32.0	31.0
27	13.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0	1.0	0.0
28	19.0	0.0	14.0	6.0	0.0	0.0	0.0	0.0	6.0	0.0	7.0	8.0
29	19.0	1.0	7.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	23.0
30	6.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	6.0
31	5.0		0.0		0.0		0.0	0.0		0.0		1.0
Max.	60.0	75.0	84.0	91.0	45.0	10.0	24.0	8.0	41.0	42.0	43.0	49.0
Total	440.0	443.0	308.0	357.0	115.0	11.0	24.0	8.0	134.0	80.0	206.0	383.0

Annual : 2509      Max. : 91.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT NGANCAR**

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1985 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.0	1.0	33.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	5.0	26.0
2	1.0	4.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	34.0
3	7.0	0.0	41.0	21.0	0.0	5.0	0.0	1.0	0.0	0.0	0.0	6.0
4	2.0	5.0	36.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	4.0
5	0.0	25.0	80.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
6	1.0	8.0	21.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	60.0
7	0.0	9.0	82.0	1.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	17.0
8	56.0	0.0	105.0	55.0	0.0	6.0	0.0	0.0	0.2	0.0	0.0	0.0
9	1.0	9.0	40.0	7.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	7.0	1.0	6.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
11	19.0	43.0	0.0	7.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0
12	5.0	24.0	0.0	2.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	8.0	2.0	0.0	32.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	45.0
14	0.0	95.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	5.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	3.0	0.0	24.0	43.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
18	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	0.0
20	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
21	0.0	15.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	3.0	0.0
22	0.0	22.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	30.0	0.0
23	3.0	10.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	13.0	23.0	0.0
24	2.0	1.0	5.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	110.0
25	29.0	0.0	17.0	0.0	0.0	0.0	1.0	0.0	0.0	12.0	0.0	0.0
26	0.0	22.0	24.0	3.0	0.0	10.0	0.0	0.0	0.0	0.0	44.0	0.0
27	7.0	2.0	2.0	5.0	0.0	0.0	0.0	0.0	1.0	1.0	25.0	0.0
28	18.0	12.0	2.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	2.0
29	1.0		0.0	0.0	1.0	0.0	0.0	0.0	0.0	33.0	9.0	1.0
30	3.0		0.0	0.0	4.0	0.0	4.0	0.0	0.0	0.0	8.0	3.0
31	0.0		0.0		0.0		1.0	0.0		6.0		0.0
Max.	56.0	95.0	105.0	55.0	40.0	22.0	5.0	1.0	1.0	33.0	44.0	110.0
Total	235.0	321.0	552.0	239.0	48.0	68.0	15.0	1.0	2.5	65.0	200.0	318.0
Annual :	2065		Max. : 110.0									

Year : 1986 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	17.0	0.0	0.0	14.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	1.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	18.0	0.0	2.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
4	1.0	0.0	63.0	0.0	0.0	3.0	* 0.0	* 0.0	0.0	0.0	45.0	0.0
5	4.0	12.0	1.0	8.0	0.0	0.0	* 0.0	* 0.0	2.0	0.0	25.0	0.0
6	3.0	10.0	2.0	0.0	47.8	0.0	* 0.0	* 0.0	0.0	0.0	11.0	0.0
7	1.0	7.0	23.0	3.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	6.0	0.0
8	0.0	12.0	15.0	1.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	45.0	4.0
9	78.0	18.0	27.0	3.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	16.0	0.0
10	12.0	25.0	18.0	0.0	4.0	22.0	* 0.0	* 0.0	0.0	17.0	10.0	0.0
11	63.0	28.0	9.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	6.0	3.0	0.0
12	29.0	24.0	6.0	14.0	0.0	13.0	* 0.0	* 0.0	0.0	10.0	28.0	0.0
13	47.0	11.0	5.0	6.0	0.5	62.0	* 0.0	* 0.0	0.0	2.0	9.0	0.0
14	29.0	7.0	0.0	0.0	0.0	3.0	* 0.0	* 0.0	0.0	0.0	0.0	50.0
15	9.0	10.0	19.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	1.0	92.0
16	9.0	64.0	2.0	0.0	0.0	36.0	* 0.0	* 0.0	0.0	0.0	0.0	5.0
17	0.0	2.0	15.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	11.0	1.0
18	4.0	0.0	19.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
19	14.0	0.0	59.0	9.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	2.0	3.0
20	4.0	19.0	1.0	9.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	2.0	6.0
21	1.0	4.0	8.0	2.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	2.0
22	22.0	23.0	22.0	2.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	9.0
23	47.0	2.0	32.0	2.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
24	17.0	12.0	0.0	5.0	0.0	0.0	* 0.0	* 0.0	40.0	0.0	0.0	0.0
25	39.0	0.0	58.0	0.0	0.0	0.0	* 0.0	* 3.0	0.0	1.0	2.0	0.0
26	15.0	0.0	34.0	0.0	0.0	0.0	* 0.0	* 0.0	14.0	0.0	32.0	6.0
27	22.0	10.0	6.0	0.0	0.0	19.0	* 0.0	* 0.0	0.0	0.0	7.0	3.0
28	12.0	0.0	107.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	3.0	13.0	7.0
29	4.0		1.0	0.0	0.0	5.0	* 0.0	* 1.0	0.0	2.0	21.0	12.0
30	1.0		0.0	0.0	0.0	1.0	* 0.0	* 1.0	0.0	0.0	0.0	0.0
31	10.0		17.0		0.0		* 0.0	* 0.0		0.0		25.0
Max.	78.0	64.0	107.0	18.0	47.8	62.0	* 0.0	* 3.0	40.0	17.0	45.0	92.0
Total	514.0	300.0	569.0	96.0	52.3	167.0	* 0.0	* 5.0	56.0	41.0	289.0	225.0
Annual :	* 2314.3 Max. : * 107.0											

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT NGANCAR**

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1987 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	50.0	14.0	0.0	2.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
2	27.0	32.0	0.0	1.0	0.0	1.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
3	2.0	42.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
4	38.0	4.0	0.0	0.0	0.0	5.0	* 2.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	15.0	2.0	22.0	0.0	0.0	2.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
6	8.0	0.0	31.0	0.0	0.0	15.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
7	27.0	0.0	0.0	0.0	0.0	62.0	* 0.0	* 0.0	* 0.0	* 0.0	11.0	0.0
8	12.0	10.0	0.0	2.0	5.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0
9	35.0	10.0	3.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.0	0.0
10	4.0	44.0	0.0	17.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
11	9.0	3.0	1.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	10.0	0.0
12	26.0	1.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
13	9.0	1.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0
14	71.0	3.0	30.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	50.0
15	26.0	39.0	7.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	92.0
16	6.0	2.0	22.0	0.0	24.0	0.0	* 4.0	* 0.0	* 0.0	* 0.0	0.0	5.0
17	5.0	29.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
18	0.0	2.0	1.0	3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	9.0	39.0	5.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
20	0.0	30.0	4.0	6.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0
21	35.0	1.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	8.0	2.0
22	2.0	8.0	3.0	5.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	9.0
23	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	6.0	0.0
24	5.0	37.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	14.0	0.0
25	48.0	19.0	19.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	0.0
26	3.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0
27	17.0	7.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
28	7.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	7.0
29	3.0		8.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	12.0
30	37.0		0.0	38.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	0.0
31	4.0		4.0		0.0		* 0.0	* 0.0		* 0.0		25.0
Max.	71.0	44.0	31.0	38.0	24.0	62.0	* 4.0	* 0.0	* 0.0	* 0.0	14.0	92.0
Total	540.0	379.0	160.0	80.0	29.0	88.0	* 6.0	* 0.0	* 0.0	* 0.0	60.0	235.0

Annual : \* 1577.0      Max. : \* 92.0

Year : 1988 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	40.0	4.0	13.0	20.0	4.0	0.0	0.0	0.0	1.0	10.0	44.0
2	0.0	4.0	8.0	3.0	6.0	0.0	0.0	0.0	0.0	0.0	1.0	55.0
3	0.0	7.0	2.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	94.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
5	0.0	110.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
6	0.0	7.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
7	0.0	20.0	1.0	0.0	13.0	3.0	0.0	0.0	4.0	0.0	0.0	21.0
8	0.0	1.0	4.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	13.0
9	0.0	13.0	1.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	1.0
10	0.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
11	7.0	47.0	0.0	0.0	36.0	27.0	0.0	0.0	0.0	0.0	4.0	5.0
12	20.0	25.0	15.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	8.0	24.0
13	36.0	28.0	4.0	3.0	8.0	0.0	0.0	0.0	0.0	0.0	67.0	24.0
14	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	70.0	17.0
15	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	43.0	58.0	6.0
16	33.0	12.0	0.0	0.0	9.0	0.0	0.0	0.0	3.0	14.0	2.0	7.0
17	0.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	3.0	21.0
18	32.0	0.0	1.0	7.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	16.0
19	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	8.0
20	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
21	3.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
22	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
23	19.0	22.0	4.0	0.0	39.0	0.0	0.0	0.0	0.0	0.0	43.0	5.0
24	11.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	11.0
25	130.0	14.0	55.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	19.0	23.0
26	1.0	24.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	52.0
27	54.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	13.0
28	6.0	3.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	10.0	4.0
29	1.0	0.0	7.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
30	1.0		0.0	3.0	0.0	0.0	0.0	0.0	0.0	10.0	7.0	0.0
31	4.0		33.0		0.0		0.0	0.0		13.0		0.0
Max.	130.0	110.0	55.0	52.0	39.0	30.0	0.0	2.0	4.0	43.0	70.0	55.0
Total	384.0	510.0	198.0	111.0	176.0	74.0	0.0	2.0	9.0	121.0	338.0	448.0

Annual : 2371      Max. : 130.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1989 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	1.0	17.0	0.0	2.0	* 0.0	0.0	0.0	3.0	1.0
2	6.0	14.0	24.0	26.0	0.0	33.0	0.0	* 0.0	0.0	0.0	20.0	0.0
3	0.0	5.0	8.0	0.0	0.0	0.0	0.0	* 13.0	0.0	1.0	3.0	0.0
4	8.0	0.0	5.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	18.0	0.0
5	1.0	0.0	5.0	0.0	0.0	16.0	0.0	* 7.0	0.0	0.0	0.0	0.0
6	54.0	70.0	23.0	14.0	0.0	0.0	0.0	* 7.0	0.0	0.0	0.0	0.0
7	0.0	18.0	7.0	5.0	0.0	2.0	0.0	* 2.0	0.0	0.0	20.0	3.0
8	0.0	13.0	0.0	0.0	0.0	0.0	14.0	* 0.0	0.0	0.0	6.0	19.0
9	0.0	0.0	0.0	0.0	13.0	0.0	0.0	* 0.0	0.0	0.0	2.0	4.0
10	33.0	0.0	3.0	0.0	14.0	0.0	0.0	* 0.0	0.0	0.0	0.0	17.0
11	0.0	3.0	20.0	0.0	0.0	7.0	0.0	* 0.0	0.0	0.0	0.0	4.0
12	5.0	9.0	5.0	0.0	0.0	0.0	2.0	* 0.0	0.0	0.0	0.0	15.0
13	14.0	7.0	0.0	2.0	23.0	27.0	0.0	* 0.0	0.0	0.0	0.0	0.0
14	0.0	11.0	0.0	0.0	20.0	2.0	0.0	* 0.0	0.0	2.0	15.0	0.0
15	0.0	2.0	7.0	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0	3.0	2.0
16	6.0	3.0	3.0	0.0	0.0	0.0	0.0	* 0.0	17.0	7.0	23.0	13.0
17	6.0	34.0	0.0	0.0	0.0	18.0	4.0	* 0.0	0.0	0.0	0.0	0.0
18	1.0	5.0	5.0	0.0	0.0	0.0	3.0	* 0.0	0.0	0.0	0.0	0.0
19	0.0	6.0	0.0	1.0	0.0	2.0	38.0	* 0.0	0.0	0.0	0.0	0.0
20	0.0	4.0	0.0	5.0	0.0	0.0	4.0	* 0.0	0.0	0.0	1.0	0.0
21	0.0	7.0	0.0	0.0	0.0	9.0	19.0	* 0.0	0.0	0.0	1.0	0.0
22	0.0	4.0	0.0	0.0	1.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
23	9.0	53.0	0.0	5.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	15.0
24	12.0	4.0	18.0	0.0	0.0	0.0	4.0	* 0.0	0.0	0.0	0.0	0.0
25	13.0	27.0	26.0	0.0	14.0	1.0	5.0	* 0.0	0.0	0.0	0.0	0.0
26	6.0	32.0	0.0	6.0	48.0	0.0	6.0	* 0.0	0.0	0.0	0.0	25.0
27	20.0	107.0	31.0	0.0	15.0	0.0	0.0	* 0.0	0.0	0.0	0.0	24.0
28	0.0	13.0	65.0	46.0	0.0	0.0	0.0	* 0.0	0.0	1.0	3.0	37.0
29	0.0		3.0	40.0	11.0	0.0	0.0	* 0.0	0.0	9.0	0.0	62.0
30	13.0		9.0	0.0	0.0	0.0	0.0	* 0.0	0.0	1.0	0.0	0.0
31	6.0		27.0		42.0		0.0	* 9.0		0.0		13.0
Max.	54.0	107.0	65.0	46.0	48.0	33.0	38.0	* 13.0	17.0	9.0	23.0	62.0
Total	213.0	451.0	294.0	151.0	218.0	117.0	101.0	* 38.0	17.0	24.0	118.0	254.0

Annual : \* 1996.0      Max. : \* 107.0

Year : 1990 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	22.0
2	115.0	0.0	2.0	0.0	0.0	0.0	27.0	0.0	* 0.0	0.0	0.0	17.0
3	0.0	0.0	9.0	0.0	0.0	0.0	12.0	3.9	* 0.0	0.0	0.0	0.0
4	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	10.0
5	0.0	0.0	9.0	1.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	8.0
6	24.0	0.0	7.0	14.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	5.0
7	2.0	0.0	37.0	1.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
8	0.0	0.0	21.0	51.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
9	2.0	0.0	4.0	4.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
10	6.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
11	7.0	0.0	36.0	0.0	1.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
12	0.0	0.0	6.0	0.0	23.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
13	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	14.0
14	14.0	67.0	1.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	99.0
15	31.0	19.0	9.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
16	28.0	0.0	3.0	0.0	5.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
17	6.0	65.0	10.0	0.0	5.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
18	7.0	0.0	0.0	3.0	0.0	0.0	2.0	0.0	* 0.0	0.0	0.0	0.0
19	2.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	7.0
20	20.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	6.0	4.0
21	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	11.0
22	17.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	* 0.8	0.0	0.0	26.0
23	4.0	80.0	0.0	1.0	5.0	0.0	0.0	21.2	* 0.0	0.0	0.0	0.0
24	19.0	85.0	0.0	0.0	0.0	2.0	0.0	0.0	* 0.0	2.0	0.0	14.0
25	19.0	0.0	0.0	0.0	5.0	0.0	2.0	0.0	* 0.0	2.0	8.0	0.0
26	9.0	34.0	0.0	4.0	21.0	0.0	0.0	0.0	* 0.0	1.0	0.0	13.0
27	36.0	0.0	0.0	0.0	39.0	13.0	0.0	1.3	* 0.0	0.0	42.0	4.0
28	0.0	0.0	25.0	2.0	2.0	0.0	0.0	0.0	* 0.0	0.0	0.0	33.0
29	5.0		0.0	11.0	0.0	0.0	0.0	0.0	* 0.0	3.0	0.0	20.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
31	0.0		0.0		0.0		0.0	0.0		0.0		15.0
Max.	115.0	85.0	37.0	51.0	39.0	13.0	27.0	21.2	* 0.8	3.0	42.0	99.0
Total	378.0	386.0	216.0	92.0	108.0	15.0	43.0	26.3	* 0.8	8.0	56.0	324.0

Annual : \* 1653.1      Max. : \* 115.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1991 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	38.0	10.0	2.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2.0	19.0	9.0	37.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	8.0	12.0	15.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	36.0	0.0	37.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	33.0	14.0	0.0	18.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0
6	0.0	15.0	3.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0
7	6.0	21.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
8	2.0	1.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.0
9	11.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
10	45.0	14.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
11	51.0	48.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	7.0	6.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
13	4.0	14.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0
14	10.0	3.0	17.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	14.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	1.0	11.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	8.0	4.0	3.0	9.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0
19	9.0	62.0	9.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	16.0	23.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
21	39.0	7.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.0	1.0
22	12.0	9.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
23	13.0	2.0	2.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0
24	0.0	15.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
25	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
26	0.0	7.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
27	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.0
28	16.0	4.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	36.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
31	0.0		10.0		0.0		0.0	0.0				21.0
<b>Max.</b>	51.0	62.0	50.0	53.0	13.0	0.0	0.0	0.0	0.0	7.1	43.0	72.0
<b>Total</b>	345.0	414.0	179.0	293.0	20.0	0.0	0.0	0.0	0.0	7.1	94.0	269.0

Annual : 1621                      Max. : 72.0

Year : 1992 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.0	32.0	15.0
2	40.0	8.0	0.0	6.0	0.0	2.0	0.0	0.0	17.0	3.0	0.0	8.0
3	0.0	6.0	4.0	0.0	3.0	0.0	8.0	0.0	0.0	0.0	0.0	43.0
4	0.0	0.0	0.0	4.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
5	0.0	2.0	0.0	20.0	4.0	0.0	19.0	0.0	0.0	0.0	0.0	25.0
6	53.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
7	0.0	0.0	3.0	3.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0	0.0
8	39.0	33.0	38.0	0.0	8.0	0.0	5.0	0.0	27.0	0.0	0.0	0.0
9	0.0	50.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	4.0	5.0
10	14.0	61.0	66.0	18.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
11	52.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	86.0
12	86.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
14	0.0	81.0	3.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0
15	28.0	7.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
16	14.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	2.0
17	3.0	11.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	3.0
18	0.0	2.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	18.0	102.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	3.0	3.0	0.0	16.0	0.0	0.0	0.0	0.0	8.0	0.0
21	0.0	33.0	71.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0	0.0
22	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
23	4.0	31.0	10.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0
24	9.0	0.0	12.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
25	1.0	0.0	19.0	8.0	5.0	0.0	0.0	0.0	3.0	0.0	12.0	0.0
26	0.0	0.0	8.0	1.0	2.0	1.0	0.0	5.0	0.0	3.0	3.0	0.0
27	0.0	0.0	31.0	1.0	17.0	0.0	0.0	1.0	0.0	17.0	0.0	0.0
28	7.0	8.0	12.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	14.0	0.0
29	5.0	7.0	4.0	0.0	0.0	0.0	0.0	4.0	0.0	5.0	0.0	0.0
30	11.0		15.0	40.0	0.0	0.0	0.0	2.0	7.0	0.0	8.0	17.0
31	0.0		54.0		3.0		0.0	36.0		40.0		6.0
<b>Max.</b>	86.0	81.0	102.0	40.0	17.0	16.0	19.0	36.0	27.0	40.0	32.0	86.0
<b>Total</b>	368.0	422.0	499.0	148.0	50.0	19.0	32.0	56.0	62.0	89.0	162.0	248.0

Annual : 2155                      Max. : 102.0

" \* " : supplemented by nearby station with highest correlation



### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1993 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 43.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	6.0
2	* 49.0	9.0	0.0	0.0	43.0	0.0	0.0	0.0	0.0	* 0.0	0.0	9.0
3	* 73.0	36.0	0.0	3.0	16.0	0.0	0.0	0.0	0.0	* 0.0	0.0	30.0
4	* 0.0	36.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	22.0
5	* 0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	4.0
6	* 23.0	12.0	0.0	25.0	2.0	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0
7	* 2.0	5.0	7.0	29.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	13.0
8	* 28.0	5.0	0.0	67.0	0.0	12.0	0.0	0.0	0.0	* 2.0	0.0	0.0
9	* 2.0	0.0	24.0	1.0	0.0	30.0	0.0	5.0	0.0	* 6.0	0.0	37.0
10	* 5.0	0.0	30.0	9.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	71.0
11	* 7.0	0.0	49.0	2.0	0.0	3.0	0.0	0.0	0.0	* 0.0	0.0	6.0
12	* 3.0	0.0	1.0	6.0	0.0	4.0	0.0	0.0	0.0	* 0.0	0.0	13.0
13	* 7.0	0.0	19.0	0.0	0.0	17.0	0.0	0.0	0.0	* 0.0	19.0	7.0
14	* 0.0	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	* 0.0	39.0	38.0
15	* 4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	2.0	7.0
16	* 2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 43.0	0.0	4.0
17	* 3.0	19.0	0.0	34.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
18	* 3.0	4.0	0.0	17.0	0.0	13.0	0.0	0.0	0.0	* 6.0	22.0	0.0
19	* 52.0	4.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
20	* 2.0	3.0	10.0	18.0	0.0	0.0	0.0	0.0	0.0	* 0.0	61.0	3.0
21	* 0.0	16.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	4.0
22	* 15.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	8.0	5.0
23	* 33.0	27.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	1.0	40.0
24	* 71.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	14.0	39.0
25	* 27.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	35.0	4.0
26	* 12.0	2.0	2.0	32.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	16.0
27	* 0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
28	* 5.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
29	* 30.0		2.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	2.0	0.0
30	* 0.0		2.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	27.0	0.0
31	* 2.0		0.0		0.0		0.0	0.0		* 0.0		0.0
<b>Max.</b>	* 73.0	40.0	49.0	67.0	43.0	30.0	0.0	5.0	0.0	* 43.0	61.0	71.0
<b>Total</b>	* 503.0	233.0	162.0	252.0	61.0	100.0	0.0	5.0	0.0	* 57.0	230.0	381.0

Annual : \* 1984.0      Max. : \* 73.0

Year : 1994 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	19.0	6.0	21.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
2	0.0	0.0	7.0	13.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	25.0
3	0.0	3.0	44.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0	10.0
4	0.0	0.0	51.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	18.0
5	2.0	8.0	44.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
6	0.0	0.0	6.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0	0.0
7	28.0	0.0	18.0	0.0	0.0	* 1.3	* 0.0	* 0.0	* 0.0	0.0	0.0	33.0
8	0.0	37.0	53.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
9	1.0	0.0	15.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	11.0
10	0.0	0.0	5.0	23.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	18.0
11	1.0	4.0	12.0	57.0	35.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
12	0.0	0.0	17.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
13	0.0	24.0	5.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
14	32.0	15.0	11.0	30.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	18.0
15	0.0	0.0	0.0	7.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	1.0
16	34.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
17	38.0	23.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	14.0
19	4.0	24.0	15.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0	1.0
20	0.0	1.0	49.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	20.0	0.0
21	34.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
22	5.0	15.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
23	28.0	0.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
24	9.0	8.0	54.0	6.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
25	6.0	6.0	6.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
26	0.0	15.0	41.0	9.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	0.0	0.0
27	26.0	22.0	16.0	6.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	5.0	0.0
28	27.0	4.0	10.0	28.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
29	17.0		12.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	51.0	0.0
30	46.0		2.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
31	0.0		35.0		0.0		* 0.0	* 0.0		0.0		25.0
<b>Max.</b>	46.0	37.0	54.0	57.0	35.0	* 1.3	* 0.0	* 0.0	* 0.0	1.0	51.0	33.0
<b>Total</b>	338.0	228.0	538.0	203.0	35.0	* 1.3	* 0.0	* 0.0	* 0.0	1.0	89.0	174.0

Annual : \* 1607.3      Max. : \* 57.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1995 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	124.0	50.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0
2	50.0	28.0	96.0	3.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
3	0.0	37.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
4	12.0	31.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
5	30.0	0.0	6.0	74.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0
6	57.0	58.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
7	8.0	5.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
8	0.0	28.0	7.0	0.0	3.0	2.0	5.0	0.0	0.0	0.0	3.0	10.0
9	0.0	8.0	7.0	11.0	0.0	24.0	67.0	0.0	0.0	0.0	0.0	2.0
10	0.0	55.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
11	47.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	17.0	5.0
12	0.0	11.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	1.0	0.0
13	0.0	15.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	21.0
14	2.0	20.0	17.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0
15	1.0	1.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	19.0
16	0.0	3.0	25.0	9.0	0.0	0.0	0.0	0.0	0.0	10.0	90.0	12.0
17	10.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0	1.0
18	8.0	47.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	10.0	4.0
19	55.0	9.0	17.0	0.0	0.0	29.0	0.0	0.0	0.0	0.0	40.0	0.0
20	1.0	24.0	1.0	0.0	0.0	4.0	0.0	0.0	0.0	2.0	0.0	11.0
21	21.0	41.0	0.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	26.0	3.0
22	23.0	0.0	17.0	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	8.0
23	0.0	11.0	30.0	0.0	0.0	4.0	0.0	0.0	0.0	1.0	6.0	4.0
24	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	15.0	0.0
25	49.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	3.0	0.0
26	23.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	3.0	0.0
27	0.0	19.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0	1.0	0.0
28	10.0	3.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
29	1.0		0.0	10.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
30	2.0		54.0	6.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	57.0	124.0	96.0	74.0	25.0	29.0	67.0	0.0	0.0	46.0	90.0	37.0
Total	413.0	612.0	447.0	191.0	41.0	119.0	79.0	0.0	0.0	114.0	277.0	194.0

Annual : 2487                      Max. : 124.0

Year : 1996 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	1.0	25.0	2.0	0.0	0.0	6.0	0.0	0.0	0.0	4.0	0.0
2	69.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
3	9.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	2.0
4	6.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
5	0.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0
6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
7	3.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
8	0.0	16.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
9	15.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
10	0.0	1.0	1.0	36.0	0.0	0.0	0.0	49.0	0.0	0.0	25.0	2.0
11	0.0	8.0	0.0	7.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	38.0
12	0.0	62.0	3.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	35.0
13	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0
14	0.0	0.0	0.0	17.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	31.0
15	0.0	0.0	1.0	7.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	1.0
16	6.0	1.0	42.0	4.0	18.7	1.0	0.0	0.0	0.0	0.0	14.0	0.0
17	22.0	0.0	12.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	8.0
18	3.0	3.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	43.0
19	0.0	3.0	5.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	20.0	1.0
20	6.0	18.0	21.0	13.0	0.0	0.0	0.0	0.0	0.0	4.0	29.0	0.0
21	39.0	33.0	5.0	37.0	0.0	0.0	0.0	0.0	0.0	20.0	3.0	0.0
22	13.0	18.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	6.0
23	0.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
24	10.0	0.0	6.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	2.0	0.0
25	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	0.0	0.0
26	3.0	14.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	1.0	0.0
27	27.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	9.0	0.0	63.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	7.0	0.0	9.0
29	24.0	6.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	1.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.0	1.0	6.0
31	1.0		0.0		0.0		0.0	0.0		18.0		0.0
Max.	69.0	62.0	42.0	37.0	18.7	1.0	6.0	49.0	0.0	67.0	36.0	63.0
Total	257.0	277.0	145.0	161.0	26.6	2.0	11.0	62.0	0.0	244.0	151.0	304.0

Annual : 1641                      Max. : 69.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1997 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	5.0	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
3	0.0	3.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
4	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	4.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
6	20.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
7	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
8	10.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	5.0	22.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	17.1	3.0
10	1.0	2.0	7.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.0
11	12.0	0.0	0.0	30.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	38.0
12	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	3.5	35.0
13	0.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	29.0
14	68.0	1.0	0.0	61.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	31.0
15	5.0	0.0	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
16	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
18	13.0	7.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	43.0
19	19.0	12.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
20	14.0	3.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	2.0	15.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
22	6.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	6.0
23	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
24	63.0	2.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	8.0	1.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	3.5	0.0
27	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1	63.0
28	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.2	9.0
29	0.0		2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	68.0	70.0	21.0	61.0	8.3	0.4	0.0	0.0	0.0	0.0	27.2	63.0
Total	280.0	272.0	54.0	203.0	16.4	0.4	0.0	0.0	0.0	0.0	72.3	304.0

Annual : 1202      Max. : 70.0

Year : 1998 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	12.0	2.0	4.0	1.0	0.0	35.0	0.0	0.0	0.0	19.0	0.5
2	0.0	0.0	37.7	16.0	0.0	0.0	33.0	0.0	0.0	0.0	2.0	2.7
3	0.0	41.0	1.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1
4	0.0	39.0	56.9	0.0	0.0	0.0	0.0	2.0	0.0	0.0	3.0	1.0
5	0.0	28.0	0.0	0.0	6.0	20.0	0.0	0.0	0.0	0.0	9.0	0.0
6	1.5	4.0	0.0	0.0	0.0	53.0	0.0	0.0	0.0	0.0	6.0	0.0
7	11.1	5.0	5.5	14.0	0.0	0.0	0.0	0.0	0.0	35.0	4.0	0.0
8	5.3	0.0	22.1	0.0	0.0	0.0	7.0	0.0	0.0	0.0	4.0	0.0
9	3.0	1.0	22.6	0.0	38.0	0.0	5.0	0.0	0.0	0.0	9.0	0.0
10	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
11	0.0	7.0	15.1	2.0	0.0	0.0	3.0	0.0	0.0	0.0	8.0	1.0
12	0.0	0.0	13.6	7.0	4.0	13.0	16.0	0.0	0.0	4.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0
14	35.7	0.0	4.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	7.0	23.1	3.0	0.0	0.0	2.0	0.0	0.0	0.0	56.0	2.5
16	0.0	12.0	3.0	0.0	0.0	27.0	14.0	0.0	0.0	0.0	6.0	5.5
17	16.1	0.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	51.3
18	0.0	0.0	2.5	0.0	20.0	22.0	0.0	0.0	0.0	7.0	16.0	0.0
19	1.5	11.0	61.9	44.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.5
20	7.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0	23.7
21	19.1	10.0	0.0	33.0	0.0	19.0	0.0	0.0	0.0	40.0	0.0	2.0
22	0.0	44.0	46.6	42.0	0.0	5.0	0.0	0.0	0.0	32.0	0.0	89.1
23	0.0	6.0	5.5	10.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
24	0.0	0.0	15.1	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
25	9.1	0.0	46.3	0.0	0.0	0.0	3.0	0.0	6.0	0.0	0.0	1.0
26	1.0	0.0	3.8	22.0	2.0	0.0	13.0	0.0	0.0	14.0	0.0	0.9
27	5.5	24.0	13.6	50.0	29.0	0.0	0.0	0.0	30.0	0.0	0.0	0.8
28	4.5	4.0	1.0	10.0	0.0	23.0	3.0	0.0	8.0	35.0	5.0	3.0
29	0.0		0.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	8.0	55.4
30	5.0		0.0	47.0	0.0	13.0	2.0	0.0	0.0	2.0	0.0	11.1
31	47.3		0.0		0.0		13.0	0.0		28.0		11.1
Max.	47.3	45.0	61.9	50.0	38.0	53.0	35.0	4.0	30.0	40.0	56.0	89.1
Total	172.9	300.0	410.3	318.0	100.0	195.0	149.0	6.0	44.0	251.0	174.0	279.2

Annual : 2399      Max. : 89.1

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 1999 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	32.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	11.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
3	40.0	7.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	10.0
4	14.0	32.0	4.0	0.0	26.0	12.0	0.0	0.0	0.0	0.0	45.0	25.0
5	0.0	39.0	0.0	25.0	0.0	0.0	5.0	0.0	0.0	0.0	5.0	2.0
6	0.0	16.0	8.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	1.0	32.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	1.0	3.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	31.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
10	0.0	8.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	16.0
11	18.0	0.0	3.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	85.0
12	1.0	0.0	4.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
13	0.0	0.0	0.0	1.0	7.0	0.0	0.0	0.0	0.0	14.0	0.0	10.0
14	0.0	32.0	83.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0
15	0.0	0.0	2.0	21.0	0.0	0.0	0.0	0.0	0.0	7.0	16.0	0.0
16	2.0	1.0	6.0	13.0	17.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0
17	22.0	1.0	4.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	6.0	38.0	1.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
19	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
20	31.0	15.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	26.0	13.0
22	32.0	28.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	2.0
23	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	24.0	27.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
25	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
26	25.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
27	0.0	27.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	14.0
28	0.0	10.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	29.0
29	32.0		4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0
30	15.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
31	10.0		5.0		0.0		0.0	0.0		47.0		0.0
<b>Max.</b>	40.0	39.0	83.0	41.0	26.0	12.0	5.0	0.0	0.0	47.0	45.0	85.0
<b>Total</b>	343.0	320.0	259.0	149.0	83.0	12.0	5.0	0.0	0.0	114.0	154.0	350.0

Annual : 1789      Max. : 85.0

Year : 2000 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	10.0	8.0	19.0	0.0	4.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2	5.0	85.0	25.0	3.0	0.0	15.0	-	0.0	0.0	0.0	0.0	0.0
3	5.0	7.0	3.0	0.0	0.0	0.0	-	0.0	0.0	0.0	19.0	0.0
4	30.0	39.0	62.0	0.0	24.0	15.0	-	0.0	0.0	0.0	0.0	0.0
5	29.0	36.0	36.0	0.0	0.0	10.0	-	0.0	0.0	0.0	20.0	0.0
6	0.0	0.0	32.0	5.0	0.0	0.0	-	0.0	0.0	10.0	4.0	0.0
7	13.0	24.0	11.0	13.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8	14.0	42.0	0.0	10.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9	12.0	9.0	0.0	10.0	0.0	0.0	-	0.0	0.0	0.0	32.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11	0.0	16.0	5.0	16.0	0.0	0.0	-	0.0	0.0	7.0	0.0	0.0
12	0.0	0.0	16.0	5.0	0.0	0.0	-	0.0	0.0	0.0	28.0	0.0
13	0.0	0.0	10.0	0.0	13.0	0.0	-	0.0	0.0	0.0	0.0	10.0
14	0.0	0.0	70.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	7.0	0.0	10.0	0.0	-	0.0	0.0	8.0	0.0	0.0
16	0.0	0.0	0.0	17.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	4.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18	0.0	64.0	0.0	3.0	0.0	20.0	-	0.0	0.0	0.0	34.0	0.0
19	0.0	0.0	0.0	6.0	0.0	2.0	-	0.0	0.0	0.0	0.0	0.0
20	0.0	39.0	0.0	0.0	33.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21	10.0	8.0	0.0	8.0	0.0	0.0	-	0.0	0.0	10.0	0.0	0.0
22	12.0	56.0	0.0	18.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
23	5.0	38.0	32.0	10.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
24	6.0	0.0	0.0	0.0	12.0	0.0	-	0.0	0.0	0.0	0.0	0.0
25	0.0	39.0	6.0	10.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	10.0	0.0	0.0	0.0	-	0.0	0.0	0.0	42.0	20.0
27	0.0	34.0	0.0	28.0	0.0	0.0	-	0.0	0.0	15.0	5.0	21.0
28	39.0	0.0	20.0	0.0	0.0	0.0	-	0.0	0.0	0.0	11.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	22.0	0.0
30	0.0		8.0	0.0	0.0	0.0	-	0.0	0.0	5.0	0.0	0.0
31	0.0		0.0		0.0		-	0.0		0.0		0.0
<b>Max.</b>	39.0	85.0	70.0	28.0	33.0	20.0	0.0	0.0	0.0	15.0	42.0	21.0
<b>Total</b>	190.0	544.0	372.0	166.0	96.0	62.0	0.0	0.0	0.0	55.0	217.0	51.0

Annual : 1753      Max. : 85.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 2001 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	1.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	20.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	25.0	50.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
4	20.0	43.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	5.0	12.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	50.0	5.0	2.0	10.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	50.0	21.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	10.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	4.0	36.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
10	2.0	11.0	15.0	70.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0
11	3.0	0.0	9.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	2.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	5.0	7.5	0.0	0.0	0.0	2.0	0.0
16	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
17	38.0	0.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	0.0
18	23.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0
19	0.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
20	2.0	8.0	9.0	0.0	0.0	36.0	0.0	0.0	0.0	0.0	18.0	0.0
21	0.0	2.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
22	14.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	10.0	0.0	6.0	2.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
25	0.0	12.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	8.0	0.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
28	4.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
29	17.0		12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	67.0		38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	67.0	50.0	85.0	70.0	0.0	36.0	7.5	0.0	0.0	0.0	50.0	0.0
<b>Total</b>	267.0	262.0	401.0	106.0	0.0	97.0	8.5	0.0	0.0	0.0	161.0	0.0

Annual : 1303                      Max. : 85.0

Year : 2002 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
2	0.0	7.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	4.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	59.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	1.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	71.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
7	0.0	26.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	16.0
8	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
9	0.0	25.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	19.0	0.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
11	0.0	20.0	0.0	3.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
12	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	45.0	0.0	1.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
14	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
16	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	35.0
17	0.0	16.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
18	0.0	65.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	96.0	0.0
19	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	7.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	42.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0
22	0.0	10.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
23	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
24	0.0	12.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0
25	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	6.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
31	0.0		0.0		0.0		0.0	0.0		0.0		3.0
<b>Max.</b>	0.0	71.0	0.0	40.0	49.0	0.0	0.0	0.0	0.0	0.0	96.0	46.0
<b>Total</b>	0.0	596.0	0.0	203.0	72.0	0.0	0.0	0.0	0.0	0.0	133.0	257.0

Annual : 1261                      Max. : 96.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 2003 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	42.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0
2	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
3	0.0	4.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
4	0.0	19.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
5	0.0	10.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0
6	0.0	1.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
7	0.0	11.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
8	0.0	0.0	0.0	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	16.0	58.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	5.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	11.0	8.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	65.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
17	0.0	2.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
18	0.0	37.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	30.0
19	0.0	17.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	9.0	20.0	24.0
20	0.0	19.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	21.0
21	0.0	56.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0	0.0	0.0	20.0
22	0.0	3.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
24	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	22.0
25	0.0	6.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.0	25.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	27.0
27	0.0	103.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
28	0.0	14.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.0	10.0
31	0.0		0.0		0.0		0.0	0.0		31.0		0.0
<b>Max.</b>	0.0	103.0	64.0	10.0	43.0	56.0	0.0	0.0	0.0	31.0	25.0	35.0
<b>Total</b>	0.0	552.0	292.0	22.0	57.0	56.0	0.0	0.0	0.0	66.0	96.0	431.0

Annual : 1572      Max. : 103.0

Year : 2004 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	49.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	20.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	2.0	1.0	40.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
6	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	42.0	4.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	12.0	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	1.0	0.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0
11	15.0	15.0	5.0	0.0	0.0	13.0	2.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	2.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	6.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0
14	0.0	1.0	18.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
15	0.0	16.0	0.0	1.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	11.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	23.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	7.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	7.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	3.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	8.0	4.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	35.0	1.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	56.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	32.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	77.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	19.0		2.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	77.0	56.0	40.0	13.0	13.0	31.0	10.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	275.0	209.0	211.0	41.0	61.0	44.0	21.0	0.0	0.0	0.0	0.0	0.0

Annual : 862      Max. : 77.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT NGANCAR

Station No. : 14  
 Basin : Upper Solo  
 Elevation : 275 m

Year : 2005 ( unit : mm )

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	4.0	8.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0
5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	23.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	15.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	9.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	43.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	1.0	16.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
18	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	20.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	17.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	40.0	1.0	0.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0
22	75.0	22.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0
23	11.0	2.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0
24	40.0	18.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
25	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
26	1.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	52.0	20.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	17.0
28	5.0	15.0	5.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
29	38.0		28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	15.0		30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	3.0		1.0		0.0		0.0	0.0		0.0		
<b>Max.</b>	75.0	52.0	88.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	33.0
<b>Total</b>	296.0	290.0	246.0	0.0	0.0	136.0	0.0	0.0	0.0	0.0	0.0	87.0

Annual : 1055                      Max. : 88.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1975 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	*3.4	*5.9	*4.2	*38.2	*0.0	*0.0	*1.0	*0.0	*0.0	*72.2	*0.0	*0.0
2	*0.0	*18.7	*6.8	*20.4	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*35.7
3	*0.8	*156.4	*6.8	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*11.9	*0.0	*0.0
4	*0.0	*2.5	*11.9	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*5.9	*4.0	*13.6
5	*27.2	*0.0	*0.0	*0.0	*36.0	*0.0	*0.0	*0.0	*0.0	*28.9	*5.0	*39.9
6	*13.6	*19.5	*4.2	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*43.3	*1.0	*2.5
7	*0.8	*18.7	*0.8	*0.8	*0.0	*0.0	*0.0	*0.0	*0.0	*18.7	*5.0	*6.8
8	*34.0	*12.7	*18.7	*8.5	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*6.0	*0.0
9	*5.1	*34.0	*23.8	*0.0	*169.0	*0.0	*0.0	*0.0	*52.0	*6.8	*0.0	*28.9
10	*11.0	*1.7	*0.8	*0.8	*0.0	*0.0	*0.0	*0.0	*0.0	*2.5	*2.0	*5.9
11	*1.7	*5.9	*19.5	*0.0	*0.0	*0.0	*0.0	*0.0	*65.0	*0.0	*7.0	*11.0
12	*26.3	*0.0	*9.3	*10.2	*36.0	*0.0	*0.0	*0.0	*4.0	*30.6	*12.0	*11.9
13	*17.0	*26.3	*16.1	*0.0	*0.0	*0.0	*0.0	*0.0	*1.0	*2.5	*6.0	*31.4
14	*12.7	*1.7	*5.1	*23.8	*32.0	*0.0	*0.0	*0.0	*1.0	*0.0	*22.0	*33.1
15	*0.0	*34.0	*5.9	*5.1	*11.0	*0.0	*0.0	*0.0	*1.0	*0.0	*63.0	*8.5
16	*0.8	*35.7	*34.8	*27.2	*16.0	*0.0	*0.0	*0.8	*0.0	*0.0	*0.0	*7.6
17	*22.9	*4.2	*0.0	*0.0	*9.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
18	*5.1	*0.0	*0.0	*5.1	*0.0	*0.0	*0.0	*0.0	*5.0	*13.6	*0.0	*1.7
19	*0.0	*2.5	*3.4	*28.9	*0.0	*0.0	*0.0	*0.0	*0.0	*6.8	*0.0	*2.5
20	*0.8	*9.3	*63.7	*1.7	*0.0	*2.4	*3.0	*0.0	*0.0	*35.7	*34.0	*0.0
21	*2.5	*20.4	*4.2	*0.0	*37.0	*0.0	*0.0	*0.0	*0.0	*36.5	*0.0	*0.0
22	*0.0	*1.7	*36.5	*1.7	*12.0	*0.0	*0.0	*0.0	*0.0	*16.1	*0.0	*0.0
23	*3.4	*1.7	*31.4	*0.8	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
24	*0.0	*10.2	*5.9	*9.3	*0.0	*0.0	*0.0	*0.0	*0.0	*13.6	*0.0	*0.0
25	*0.0	*5.9	*7.6	*0.0	*5.0	*0.0	*0.0	*0.0	*0.0	*11.9	*0.0	*7.6
26	*4.2	*2.5	*58.6	*0.0	*6.0	*0.0	*0.0	*0.0	*0.0	*6.8	*0.0	*0.0
27	*30.6	*23.8	*3.4	*11.9	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*2.0	*0.0
28	*3.4	*0.8	*14.4	*29.7	*0.0	*0.0	*0.0	*0.0	*5.0	*7.6	*0.0	*0.0
29	*48.4		*15.3	*0.0	*0.0	*0.0	*0.0	*0.0	*2.0	*16.1	*0.0	*33.1
30	*12.7		*51.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*12.7
31	*4.2		*0.0		*0.0		*0.0	*0.0		*0.0		*2.5
Max.	*48.4	*156.4	*63.7	*38.2	*169.0	*2.4	*3.0	*0.8	*65.0	*72.2	*63.0	*39.9
Total	*293.2	*457.2	*464.8	*224.3	*369.0	*2.4	*4.0	*0.8	*136.0	*388.3	*169.0	*297.4

Annual : \*2806.4      Max. : \*169.0

Year : 1976 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	15.0	7.0	25.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	14.0	*70.0
2	21.0	6.0	2.0	5.0	*1.8	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
3	20.0	0.0	3.0	0.0	*0.0	0.0	1.9	*7.6	*0.0	0.0	5.0	*0.0
4	21.0	0.0	15.0	1.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*4.0
5	52.0	0.0	0.0	7.0	*0.0	0.0	0.0	*0.0	*0.0	15.0	0.0	*0.0
6	50.0	1.0	0.0	34.0	*2.9	0.0	0.0	*0.0	*0.0	19.0	0.0	*0.0
7	62.0	0.0	0.0	0.0	*15.3	0.0	0.0	*0.0	*0.0	3.0	0.0	*0.0
8	14.0	0.0	0.0	0.0	*11.2	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
9	8.0	35.0	39.0	44.0	*7.1	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
10	0.0	34.0	1.0	0.0	*2.4	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
11	9.0	35.0	46.0	0.0	*0.0	4.3	0.0	*0.0	*0.0	0.0	0.0	*8.0
12	15.0	82.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	3.0	0.0	*6.0
13	4.0	35.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	12.0	0.0	*0.0
14	25.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	10.0	2.0	*23.0
15	10.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	2.0	5.0	*17.0
16	11.0	0.0	7.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	10.0	0.0	*0.0
17	60.0	30.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	26.0	4.0	*0.0
18	12.0	2.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	19.0	30.0	*0.0
19	13.0	25.0	6.0	3.0	*0.0	0.0	0.0	*0.0	*0.0	1.0	0.0	*0.0
20	29.0	22.0	11.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	2.0	*0.0
21	0.0	0.0	5.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
22	0.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	11.0	*0.0
23	0.0	7.0	0.0	0.0	*0.0	0.0	1.4	*0.0	*0.0	0.0	8.0	*0.0
24	22.0	15.0	0.0	0.0	*0.0	0.0	1.4	*0.0	*0.0	4.0	0.0	*0.0
25	0.0	1.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
26	0.0	2.0	0.0	29.0	*0.0	0.0	0.0	*1.8	*1.8	0.0	22.0	*0.0
27	0.0	35.0	0.0	0.0	*0.0	0.0	0.5	*0.0	*0.0	13.0	7.0	*1.0
28	0.0	0.0	0.0	0.0	*0.0	0.0	0.5	*5.9	*0.0	14.0	0.0	*5.0
29	0.0	5.0	0.0	0.0	*0.0	0.0	0.5	*0.0	*5.9	0.0	0.0	*5.0
30	0.0		50.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	11.0	0.0	*3.0
31	0.0		25.0		*4.7		0.0	*0.0		10.0		*0.0
Max.	62.0	82.0	50.0	44.0	*15.3	4.3	1.9	*7.6	*5.9	26.0	30.0	*70.0
Total	473.0	379.0	235.0	123.0	*45.3	4.3	6.2	*15.3	*7.6	172.0	110.0	*142.0

Annual : \*1712.7      Max. : \*82.0

\*\* : supplemented by nearby station with highest correlation



### DAILY RAINFALL DATA AT WONOGIRI

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1977 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	5.7
2	* 0.0	3.0	0.0	20.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
3	* 0.0	1.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
4	* 15.0	0.0	2.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	* 8.0	1.0	10.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	29.6
6	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
7	* 0.0	34.0	0.0	10.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.2
8	0.0	0.0	43.0	50.0	0.0	27.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	27.7
9	* 0.0	15.0	16.0	59.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	17.7
10	* 0.0	0.0	0.0	0.0	0.0	18.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	21.0
11	* 0.0	4.0	9.0	2.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.2
12	* 0.0	6.0	1.0	0.0	0.0	7.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
13	* 12.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
14	* 15.0	47.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
15	* 0.0	11.0	0.0	0.0	0.0	5.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
16	* 5.0	3.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.8	0.0
17	* 0.0	0.0	9.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
18	* 27.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	* 73.0	0.0	10.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	0.0
20	* 62.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	5.7	0.0
21	* 90.0	32.0	13.0	2.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
22	* 26.0	0.0	5.0	6.0	0.0	15.0	* 0.0	* 0.0	* 0.0	* 0.0	89.9	0.0
23	* 60.0	0.0	14.0	5.0	17.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	13.4	0.0
24	* 65.0	13.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0
25	* 0.0	1.0	0.0	14.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
26	* 0.0	0.0	11.0	25.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	31.6
27	* 0.0	25.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
28	* 0.0	22.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
29	* 0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
30	* 0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.3
31	* 10.0		2.0		54.0		* 0.0	* 0.0		* 0.0		3.8
Max.	* 90.0	47.0	43.0	59.0	54.0	27.0	* 0.0	* 0.0	* 0.0	* 0.0	89.9	31.6
Total	* 468.0	218.0	145.0	193.0	71.0	72.0	* 0.0	* 0.0	* 0.0	* 0.0	113.8	167.8

Annual : \* 1448.6      Max. : \* 90.0

Year : 1978 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.2	1.0	0.0	0.0	5.7	0.0	16.7	37.8	0.0	0.0	0.0	0.0
2	1.9	0.5	1.4	25.8	0.0	19.1	3.3	0.0	2.4	0.0	0.0	9.1
3	0.5	9.6	0.0	0.0	0.0	28.7	2.4	0.0	5.3	16.7	0.0	1.4
4	42.5	12.4	0.0	5.3	94.7	14.3	2.4	0.0	0.5	1.0	0.0	0.5
5	0.5	2.9	10.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	27.7	0.0
6	6.2	13.9	21.0	1.4	0.0	20.6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	1.0	4.8	0.5	11.5	0.0	7.6	0.0	0.0	0.0
8	0.0	0.0	1.4	17.2	0.0	18.2	9.6	0.0	0.5	0.0	0.5	4.8
9	0.0	0.0	0.0	6.7	0.0	45.9	6.2	0.0	0.5	0.0	30.6	1.9
10	2.9	0.0	0.0	0.0	1.4	2.9	0.0	0.0	0.0	0.0	1.9	22.0
11	4.8	0.0	11.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	5.3	0.0	0.5	1.0	13.4	0.0	5.7	0.0	0.0	0.0	7.2	7.6
13	0.0	0.0	15.8	0.0	1.9	54.0	0.0	0.0	0.0	0.0	3.8	0.5
14	0.0	0.0	1.9	0.0	1.4	0.0	0.0	0.0	0.0	0.0	66.9	0.5
15	0.0	0.0	12.9	0.0	7.2	0.0	0.0	0.0	0.0	0.0	7.6	68.4
16	11.5	0.0	1.0	0.0	0.5	0.0	0.0	50.7	0.0	7.2	8.6	3.8
17	11.5	0.0	1.0	0.0	5.7	27.7	0.0	0.0	0.0	0.0	0.5	13.4
18	69.3	0.0	0.0	0.0	0.0	17.2	0.0	0.0	0.0	1.9	0.0	0.0
19	3.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0
20	1.0	4.8	10.0	0.0	1.4	0.0	0.0	0.0	47.3	1.4	0.5	0.0
21	3.3	7.6	1.4	0.0	4.8	0.0	3.8	0.0	0.0	1.0	14.8	3.3
22	19.1	12.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
23	22.9	4.8	0.5	0.0	2.9	19.1	0.0	0.0	0.0	0.0	0.0	0.0
24	23.9	13.9	0.5	0.0	0.0	3.8	0.0	0.0	0.0	1.0	0.0	1.0
25	11.5	14.3	0.0	5.7	0.0	53.5	0.0	0.0	0.0	0.0	0.0	29.2
26	11.0	5.3	21.0	4.3	1.0	0.0	0.5	0.0	0.0	0.0	0.0	13.4
27	0.0	4.8	4.8	0.0	2.9	0.0	0.5	0.0	0.0	1.9	0.0	6.2
28	8.3	0.0	0.0	0.0	1.4	0.5	0.0	0.0	0.0	0.0	0.0	4.8
29	27.5		4.8	1.0	0.0	34.9	0.0	0.0	0.0	0.0	0.0	0.0
30	25.8		8.6	0.0	6.7	0.0	0.0	0.0	0.0	0.0	12.4	30.1
31	0.0		7.6		0.0		0.0	0.0		0.0		18.6
Max.	69.3	14.3	21.0	25.8	94.7	54.0	16.7	50.7	47.3	16.7	66.9	68.4
Total	316.3	109.0	137.9	81.3	157.8	360.9	62.6	88.4	65.5	32.0	183.6	240.5

Annual : 1,836      Max. : 94.7

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1979 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	17.2	0.0	17.2	0.0	33.0	46.0	0.0	0.0	0.0	0.0	30.0	25.0
2	8.6	0.0	11.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	4.0	17.0
3	2.9	0.0	1.0	6.0	39.0	0.0	0.0	0.0	0.0	0.0	8.0	10.0
4	1.0	12.4	31.6	7.0	40.0	0.0	0.0	0.0	0.0	0.0	50.0	34.0
5	1.0	0.0	1.0	0.0	50.0	30.0	0.0	0.0	0.0	0.0	0.0	4.0
6	0.0	0.0	0.0	37.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
7	4.8	4.8	4.8	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	8.6	0.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
9	10.5	1.0	12.4	0.0	18.0	0.0	0.0	0.0	0.0	0.0	6.0	55.0
10	1.9	19.1	25.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	7.6	0.0	23.9	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0
12	24.9	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
13	6.7	0.0	53.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	39.2	0.0	2.9	8.0	31.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
15	10.5	2.9	1.9	30.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	5.7	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
17	9.6	0.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	14.0
18	14.3	4.8	0.0	4.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	24.9	1.9	14.3	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	5.7	0.0	23.9	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	31.6	26.8	50.7	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	16.3	12.4	0.0	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
23	4.8	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	38.2	0.0	25.0
24	1.0	1.9	0.0	33.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	10.5	39.2	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	19.0
26	21.0	0.0	29.6	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.0
27	0.0	23.9	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	7.6	6.7	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	44.0	0.0
31	0.0		7.6		0.0		0.0	0.0		1.0		5.0
<b>Max.</b>	39.2	39.2	53.5	55.0	50.0	46.0	0.0	0.0	2.9	38.2	50.0	55.0
<b>Total</b>	284.9	158.7	354.7	320.0	465.0	76.0	0.0	0.0	2.9	44.9	179.0	293.0

Annual : 2179 Max. : 55.0

Year : 1980 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.0	0.0	8.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
2	7.0	58.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
3	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	6.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	7.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	11.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0	1.5	12.0
7	30.0	0.0	15.0	25.0	8.6	0.0	9.0	19.0	0.0	0.0	0.0	0.0
8	36.0	165.0	17.0	32.0	18.2	0.0	0.0	0.0	0.0	0.0	2.5	0.0
9	35.0	0.0	12.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
10	28.0	72.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
11	5.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
12	6.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	7.0	3.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
14	0.0	10.0	0.0	51.0	0.0	0.0	3.0	0.0	0.0	10.0	0.0	0.0
15	0.0	3.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
16	0.0	0.0	28.0	35.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
17	2.0	16.0	39.0	7.0	0.0	0.0	0.0	6.0	0.0	0.0	48.0	0.0
18	0.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
19	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	7.0	0.0
21	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
22	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0
23	2.0	47.0	0.0	8.0	0.0	0.0	21.0	0.0	0.0	0.0	5.0	11.5
24	3.0	7.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	9.0	1.0	11.5
25	17.0	5.0	60.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
28	35.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	10.0	0.0	0.0
29	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
30	25.0		76.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	25.0	0.0
31	3.0		0.0		0.0		22.5	0.0		22.0		45.0
<b>Max.</b>	45.0	165.0	76.0	51.0	22.0	15.0	22.5	19.0	1.9	50.0	48.0	45.0
<b>Total</b>	321.0	479.0	322.0	305.0	56.4	15.0	57.5	36.0	1.9	106.0	122.0	144.0

Annual : 1966 Max. : 165.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT WONOGIRI

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1981 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	65.0	0.0	30.0
2	10.0	0.0	7.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
3	5.0	2.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	31.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0
5	0.0	3.5	8.0	0.0	9.0	0.0	0.0	0.0	0.0	59.0	7.0	0.0
6	0.0	5.0	23.0	0.0	0.0	0.0	12.0	0.0	0.0	10.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
8	40.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
9	0.0	20.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
10	0.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	3.0	40.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
12	0.0	9.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	17.0	0.0
13	15.0	8.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	16.0	3.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0	0.0	35.0	0.0
15	22.0	0.0	0.0	21.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	8.0
16	0.0	0.0	0.0	9.0	0.0	0.0	1.0	0.0	0.0	0.0	13.0	0.0
17	0.0	0.0	0.0	27.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
18	0.0	15.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	8.0	0.0
19	31.0	0.0	42.0	7.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	4.0
20	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
22	0.0	16.0	20.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	57.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	26.0	0.0	0.0
25	15.0	27.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
26	20.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	21.0	0.0	6.0	0.0
27	60.0	0.0	8.0	7.0	0.0	6.0	0.0	0.0	7.0	0.0	0.0	0.0
28	0.0	21.0	5.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	4.0	0.0	9.0	0.0	0.0	30.0	0.0
30	21.0		14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	18.0
31	0.0		4.0		0.0		0.0	0.0		0.0		0.0
Max.	60.0	31.0	42.0	27.0	11.0	10.0	24.0	9.0	21.0	65.0	35.0	40.0
Total	312.0	178.5	187.0	91.0	34.0	24.0	91.5	9.0	38.0	174.0	159.0	181.0

Annual : 1479      Max. : 65.0

Year : 1982 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	5.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.0
6	11.0	67.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	21.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
9	10.0	30.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	21.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0
11	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	25.0	20.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	6.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
15	0.0	0.0	21.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
16	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
17	20.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
21	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
22	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
24	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	77.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
28	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	11.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	24.0	77.0	23.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	74.0
Total	142.0	315.0	68.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	257.0

Annual : 862      Max. : 77.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1983 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	23.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	0.0
2	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
4	31.0	0.0	0.0	0.0	61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	20.0	0.0	0.0	26.0	18.0	0.0	0.0	0.0	0.0	50.0	43.0	0.0
6	51.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	41.0	16.0	4.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
9	0.0	52.0	0.0	0.0	17.0	0.4	0.0	0.0	0.0	0.0	23.0	0.0
10	3.0	0.0	18.0	0.0	25.0	5.1	0.0	0.0	0.0	0.0	8.0	0.0
11	18.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
13	26.0	0.0	10.0	20.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	3.0	33.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	9.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	15.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
21	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
22	4.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	18.0
23	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	6.0	18.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	4.0	23.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	36.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	4.0	8.0
27	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0	10.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	6.0	60.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
31	0.0		31.0		0.0		0.0	0.0		8.0		0.0
<b>Max.</b>	51.0	52.0	41.0	30.0	61.0	5.1	0.0	0.0	0.0	50.0	43.0	60.0
<b>Total</b>	194.0	188.0	178.0	90.0	226.0	5.5	0.0	0.0	0.0	143.0	218.0	177.0

Annual : 1419 Max. : 61.0

Year : 1984 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
2	0.0	0.0	65.0	0.0	7.0	3.0	54.0	0.0	0.0	0.0	1.0	7.1
3	42.0	24.0	1.0	0.0	3.0	0.0	0.0	0.0	0.0	26.0	0.0	0.0
4	17.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	3.0	0.0
5	114.0	86.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.2
6	0.0	25.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.3
7	5.0	51.0	15.0	82.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
8	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	1.0	5.1
9	25.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	45.0	0.0	29.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.4
11	59.0	0.0	0.0	109.0	0.0	13.0	0.0	0.0	15.0	0.0	0.0	0.0
12	41.0	0.0	21.0	19.0	0.0	3.0	0.0	0.0	0.0	0.0	0.3	18.2
13	2.0	77.0	4.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
14	31.0	0.0	0.0	0.0	5.0	0.0	6.0	0.0	0.0	0.0	0.0	8.6
15	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.5	13.0
16	1.0	5.0	80.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	9.6
17	44.0	7.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.8
18	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0
19	0.0	14.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0
22	0.0	10.0	65.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	50.0	6.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	32.2
24	38.0	5.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	24.3	18.2
25	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	11.1
26	25.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
27	16.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	13.0	0.0	0.0	9.6
28	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
29	52.0	3.0	18.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6	4.1
30	30.0		0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	25.3	0.8
31	13.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	114.0	86.0	80.0	109.0	31.0	13.0	54.0	16.0	15.0	26.0	35.5	72.4
<b>Total</b>	732.0	445.0	394.0	308.0	63.0	19.0	60.0	16.0	33.0	49.0	122.6	309.7

Annual : 2551 Max. : 114.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1985 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.9	0.0	12.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.2	7.4	1.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
3	0.0	2.0	42.5	0.7	31.0	0.0	0.0	17.0	0.0	0.0	3.0	0.0
4	0.0	3.7	24.8	39.0	0.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	57.2	0.0	68.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	26.3	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	52.0
7	8.6	5.1	73.4	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
8	2.3	2.0	36.5	0.0	0.0	16.0	0.0	0.0	0.2	0.0	0.0	0.0
9	5.1	70.4	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	19.2	1.2	0.0	49.1	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	2.0	0.0	27.4	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
12	3.5	0.0	0.0	84.6	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
13	11.6	86.1	0.0	2.3	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	9.6	1.2	0.0	0.8	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0
15	94.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	16.2	0.0	45.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	11.4	2.5	0.0	0.4	0.0	0.0	0.0	6.0	1.0	0.0	0.0	0.0
18	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	54.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
20	0.0	15.2	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	29.4	0.0	7.6	0.0	0.0	0.0	0.0	0.0	38.0	2.0	54.0
22	0.0	1.5	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	3.0	55.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	17.7	0.0	2.8	13.0	0.0	0.0	15.0	0.0	0.0	28.0	0.0	35.0
25	0.0	27.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	47.0	0.0	0.0
26	6.6	3.0	74.0	4.8	0.0	0.0	0.0	0.0	0.0	5.0	32.0	0.0
27	7.9	3.8	1.3	3.3	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
28	13.4	54.7	0.0	7.4	0.0	0.0	0.0	0.0	0.0	20.0	0.0	14.0
29	9.1		15.3	0.0	0.0	0.0	0.0	1.0	0.0	0.0	64.0	11.0
30	0.0		0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	94.7	86.1	74.0	84.6	68.0	43.0	15.0	17.0	1.0	47.0	64.0	54.0
Total	302.8	403.4	444.4	264.9	148.0	98.0	25.0	24.0	2.5	155.0	146.0	204.0

Annual : 2218 Max. : 94.7

Year : 1986 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.0	0.0	33.0	32.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
3	16.0	0.0	57.0	1.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	9.0	0.0
4	6.0	0.0	1.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
5	0.0	10.0	10.0	2.0	0.0	8.0	* 0.0	* 0.0	0.0	0.0	79.0	0.0
6	5.0	0.0	11.0	4.0	0.0	3.0	* 0.0	* 0.0	0.0	0.0	45.0	0.0
7	13.0	0.0	31.0	2.0	0.0	0.0	* 1.0	* 0.0	0.0	0.0	0.0	0.0
8	0.0	2.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	27.0	0.0	15.0	0.0
9	30.0	0.0	0.0	0.0	30.0	0.0	* 0.0	* 0.0	0.0	0.0	10.0	0.0
10	18.0	40.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	8.0
11	25.0	22.0	65.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	1.0	1.0	20.0
12	0.0	32.0	18.0	22.0	0.0	0.0	* 0.0	* 0.0	0.0	31.0	0.0	45.0
13	20.0	0.0	0.0	7.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	1.0	50.0
14	4.0	0.0	6.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	35.0
15	0.0	15.0	38.0	0.0	0.0	40.0	* 0.0	* 0.0	0.0	0.0	0.0	15.0
16	9.0	27.0	45.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
17	0.0	18.0	0.0	3.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	20.0	0.0
18	0.0	24.0	20.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
19	0.0	37.0	3.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	20.0
20	16.0	9.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	2.0	0.0	20.0	12.0
21	20.0	15.0	26.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
22	28.0	0.0	4.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
23	27.0	0.0	20.0	6.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
24	0.0	3.0	5.0	0.0	0.0	0.0	* 0.0	* 0.0	31.0	0.0	0.0	15.0
25	52.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	1.0	0.0	0.0	20.0
26	19.0	0.0	35.0	0.0	0.0	38.0	* 0.0	* 0.0	0.0	1.0	10.0	15.0
27	16.0	16.0	19.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
28	9.0	18.0	0.0	0.0	2.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
29	12.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	3.0	0.0	8.0
30	0.0		14.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		* 3.0	* 0.0		0.0		15.0
Max.	52.0	40.0	65.0	32.0	30.0	40.0	* 3.0	* 0.0	31.0	31.0	79.0	50.0
Total	348.0	288.0	461.0	79.0	32.0	89.0	* 4.0	* 0.0	61.0	36.0	210.0	278.0

Annual : \* 1886.0 Max. : \* 79.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT WONOGIRI

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1987 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	65.0	16.1	22.3	1.4	0.0	0.5	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
2	0.0	52.5	55.9	0.0	3.2	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0
3	0.0	0.5	0.0	0.0	0.0	0.0	* 32.8	* 0.0	* 0.0	* 0.0	0.0	0.0
4	25.0	0.0	6.6	0.0	0.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	75.0	0.0	32.4	2.2	0.0	0.5	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
6	0.0	0.0	8.1	0.0	85.2	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
7	25.0	3.5	13.5	2.2	31.4	5.9	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
8	0.0	27.0	0.6	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.5	0.0
9	65.0	62.2	0.0	30.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
10	25.0	60.3	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	11.4	0.0
11	5.0	7.6	0.0	0.0	0.0	0.0	* 1.6	* 0.0	* 0.0	* 0.0	0.0	0.0
12	10.0	0.3	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
13	2.0	1.6	24.6	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.4	0.0
14	20.0	17.7	26.9	0.0	32.4	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
15	5.0	28.9	1.0	0.0	11.3	0.0	* 16.7	* 0.0	* 0.0	* 0.0	0.0	5.0
16	2.0	22.8	6.6	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
17	25.0	17.2	0.0	0.0	0.0	0.0	* 5.6	* 0.0	* 0.0	* 0.0	0.0	0.0
18	0.0	46.1	0.0	6.6	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	20.0	68.5	14.7	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
20	0.0	0.0	18.2	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	29.8	0.0
21	40.0	0.6	17.4	3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	35.8	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
24	40.0	6.6	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.6	0.0
25	0.0	27.3	2.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	12.0	27.0
26	55.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
27	10.0	1.1	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	23.8	0.0
28	0.0	0.0	2.5	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.3	0.0
29	0.0		0.0	62.4	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
30	26.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.0	5.0
31	0.0		0.0				* 0.0	* 0.0		* 0.0		55.0
<b>Max.</b>	75.0	68.5	55.9	62.4	85.2	5.9	* 32.8	* 0.0	* 0.0	* 0.0	35.8	55.0
<b>Total</b>	540.0	468.4	253.5	107.9	163.6	9.9	* 56.7	* 0.0	* 0.0	* 0.0	121.7	102.0

Annual : \* 1823.7      Max. : \* 85.2

Year : 1988 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	4.3	123.1	6.1	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.4
2	0.0	12.2	0.0	3.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	1.5
3	0.0	92.9	7.6	0.0	2.5	0.0	0.0	0.8	0.0	0.0	0.0	0.0
4	0.0	15.0	67.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.1	0.0	0.0	0.0	0.0
6	0.0	11.6	3.0	0.0	27.1	24.5	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.5	1.8	0.0	6.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0
8	0.5	18.0	33.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	6.1	11.6	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	39.5	43.3	0.0	0.0	7.9	15.0	0.0	0.0	0.0	0.0	0.0	0.0
11	3.1	29.2	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	36.7	0.0
12	32.4	8.9	0.0	0.0	14.9	0.0	0.0	0.0	0.0	0.0	37.5	0.0
13	2.3	6.8	4.6	0.0	0.2	0.0	0.0	0.0	0.0	3.3	33.1	0.0
14	3.0	59.7	0.0	0.0	7.6	4.6	0.0	0.0	0.0	22.6	65.0	0.0
15	19.6	0.5	0.0	0.0	1.8	0.0	0.0	0.0	0.0	19.8	0.0	0.0
16	0.0	1.5	0.8	39.5	1.2	0.0	0.0	0.0	0.0	3.8	25.8	85.5
17	3.0	1.0	7.1	0.0	0.0	2.7	0.0	0.0	0.0	3.5	0.0	1.1
18	5.1	0.0	14.9	4.5	0.0	0.7	0.0	0.0	0.0	0.0	0.0	2.8
19	3.5	0.0	1.2	17.2	0.0	0.0	0.0	0.0	0.0	1.7	0.6	82.3
20	17.7	0.0	3.7	1.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	8.1
21	35.5	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	24.3
22	0.5	0.4	6.0	0.0	116.0	0.0	0.0	0.0	0.0	0.0	97.6	3.3
23	17.4	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.2
24	11.4	16.2	67.0	0.0	12.9	0.0	0.0	0.0	0.0	0.0	56.5	0.0
25	3.5	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0	3.0	18.2	0.0
26	0.6	42.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	4.6	6.6
27	19.8	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.2
28	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7
29	7.2	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	22.8	2.8	4.3
30	1.6		26.9	2.0	0.0	0.0	0.0	0.0	0.0	29.2	0.0	9.1
31	9.0		0.0				0.0	0.0		0.2		0.0
<b>Max.</b>	39.5	92.9	123.1	39.5	116.0	24.5	0.0	26.1	0.0	29.2	97.6	85.5
<b>Total</b>	242.8	375.9	411.3	79.4	208.2	50.0	0.0	26.9	0.0	123.1	378.9	272.5

Annual : 2169      Max. : 123.1

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT WONOGIRI

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1989 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	5.1	1.3	4.7	0.0	5.1	0.0	* 0.0	0.0	0.0	1.0	0.0
2	4.1	11.1	0.0	15.5	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
3	4.8	2.3	1.8	3.7	0.0	3.5	0.0	* 1.4	0.0	1.0	52.2	0.0
4	29.4	1.0	1.8	1.8	0.0	36.2	0.0	* 0.0	0.0	3.0	1.5	0.0
5	67.5	18.0	8.6	0.5	1.0	3.3	0.0	* 0.0	0.0	0.0	22.6	0.0
6	6.9	9.4	0.5	1.2	0.0	2.5	0.0	* 0.0	0.0	0.0	0.0	0.0
7	9.8	4.5	0.0	8.3	11.2	0.0	0.0	* 0.0	0.0	0.0	1.8	3.0
8	0.0	0.4	2.6	0.0	1.2	0.0	0.0	* 0.0	0.0	0.0	0.0	1.2
9	0.9	6.3	2.0	0.0	2.0	0.0	0.0	* 0.0	0.0	0.0	28.4	1.3
10	11.1	1.8	6.4	12.9	1.0	41.5	0.0	* 0.0	0.0	0.0	0.0	3.0
11	5.1	21.3	13.4	0.0	2.5	0.0	1.5	* 0.0	0.0	3.0	0.0	0.0
12	6.6	28.1	0.0	0.5	0.0	41.5	0.0	* 0.0	0.0	0.0	0.5	0.0
13	4.1	24.3	0.0	0.0	0.7	1.0	0.0	* 0.0	0.0	0.0	0.0	0.4
14	0.4	0.0	0.6	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.6	51.8
15	16.7	3.7	0.0	0.0	0.0	0.0	1.0	* 0.0	3.7	40.0	0.0	0.0
16	0.0	4.4	2.0	0.0	0.0	0.6	13.2	* 2.2	0.0	23.0	0.0	0.0
17	1.1	2.2	0.0	2.0	0.0	0.0	1.0	* 0.0	0.0	0.0	0.0	0.0
18	0.5	9.6	9.1	0.0	0.0	1.2	37.6	* 0.0	0.0	0.0	0.0	0.0
19	0.0	7.5	11.1	0.0	0.0	3.3	15.2	* 0.0	0.0	0.0	0.0	0.0
20	1.8	3.4	0.0	0.0	2.0	1.5	0.0	* 0.0	0.0	0.0	0.0	0.0
21	33.6	3.0	0.0	0.0	18.4	0.0	0.0	* 0.0	0.0	0.0	0.8	0.0
22	1.0	27.9	0.0	19.2	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	39.3
23	13.7	4.1	31.9	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
24	24.8	11.6	0.0	0.0	32.9	0.0	7.9	* 0.0	0.0	0.0	0.0	0.0
25	2.0	39.0	0.0	0.0	9.5	0.0	2.0	* 0.0	0.0	0.0	0.0	0.0
26	6.5	8.6	0.4	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	45.4
27	3.8	13.7	32.4	7.8	0.0	2.8	0.0	* 0.0	0.0	0.0	0.0	0.0
28	0.0	13.7	2.0	14.2	3.0	0.0	0.0	* 0.0	0.0	5.0	0.0	13.6
29	12.7		5.7	3.6	0.0	0.0	0.0	* 0.0	0.0	29.0	1.3	0.0
30	7.9		3.0	0.0	0.0	0.0	0.0	* 1.8	0.0	0.0	4.1	0.0
31	7.4		1.7		0.0			* 0.0		0.0		4.3
Max.	67.5	39.0	32.4	19.2	32.9	41.5	37.6	* 2.2	3.7	40.0	52.2	51.8
Total	284.2	286.1	138.6	96.0	85.7	144.3	79.4	* 5.5	3.7	104.0	116.8	163.3

Annual : \* 1507.5      Max. : \* 67.5

Year : 1990 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	22.5	2.0	0.0	29.5	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
2	0.0	0.0	45.4	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	22.1
3	0.0	0.0	3.0	0.0	0.0	1.0	28.7	1.9	* 0.0	0.0	0.0	5.8
4	5.4	0.0	1.5	15.8	12.2	0.0	22.0	0.0	* 0.0	0.0	0.0	0.0
5	23.8	0.0	3.6	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	29.4
6	5.1	1.5	25.6	3.0	0.0	0.0	9.6	0.0	* 0.0	0.0	0.0	1.2
7	0.0	2.8	8.1	6.8	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.8
8	7.7	0.0	4.8	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	6.9
9	2.0	6.6	28.2	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
10	3.2	0.0	13.7	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
11	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.5
12	60.0	0.0	0.4	0.0	29.6	0.0	0.0	0.0	* 0.0	0.0	1.5	17.7
13	5.3	0.0	0.0	18.8	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	35.2
14	29.4	1.0	9.1	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	3.8
15	11.3	24.8	1.4	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
16	13.2	0.0	3.2	1.5	1.3	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
17	9.6	1.0	0.0	3.5	0.0	0.0	0.0	0.0	* 0.0	0.0	2.8	8.6
18	6.2	27.8	1.5	2.4	0.0	0.0	8.6	0.0	* 0.0	0.0	25.8	46.1
19	26.3	3.5	0.0	6.1	0.0	0.0	0.0	0.0	* 0.0	0.0	12.4	3.1
20	0.0	2.5	0.0	0.0	0.0	0.0	3.8	0.0	* 0.0	0.0	0.0	4.1
21	16.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	* 0.0	0.0	0.0	42.9
22	17.8	6.1	0.0	1.3	6.6	0.0	0.0	7.6	* 0.8	0.0	0.0	0.0
23	56.2	7.1	0.0	0.0	2.4	0.0	0.0	2.9	* 0.0	0.0	0.0	1.4
24	22.0	7.1	0.0	0.0	0.0	1.0	0.0	31.6	* 0.0	0.0	0.0	2.0
25	26.8	51.9	0.5	4.1	9.1	0.0	0.0	0.0	* 0.0	0.0	1.0	7.1
26	1.6	33.9	0.0	1.0	43.4	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
27	0.0	1.5	9.9	3.8	0.0	1.4	0.0	0.0	* 0.0	16.0	0.0	16.5
28	0.0	27.1	13.5	22.3	0.0	0.0	0.0	0.0	* 0.0	0.0	2.0	2.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	17.4	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	23.0	7.4	14.2
31	0.0		0.0		0.0			0.0		10.0		3.5
Max.	60.0	51.9	45.4	29.5	43.4	2.8	28.7	31.6	* 0.8	23.0	25.8	46.1
Total	371.5	208.4	183.0	120.0	104.5	6.3	72.7	44.0	* 0.8	49.0	70.4	281.0

Annual : \* 1511.6      Max. : \* 60.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT WONOGIRI

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1991 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	34.2	90.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	8.0	71.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	11.0	0.0	0.0	25.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	5.2	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0
6	69.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
7	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0
8	1.5	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
9	7.3	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	1.8	57.0
10	23.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0
12	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	17.2	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	15.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	1.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	21.3	0.0
17	25.3	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0
19	6.3	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	13.6	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.7	29.0
21	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
22	14.6	0.0	34.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
23	47.8	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	3.0
27	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
29	16.7		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
30	0.8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
31	2.1		6.0		0.0		0.0	0.0		0.0		11.0
<b>Max.</b>	69.1	90.0	34.0	24.0	25.8	0.0	0.0	0.0	0.0	7.2	28.7	70.0
<b>Total</b>	341.4	200.0	81.0	29.0	58.3	0.0	0.0	0.0	0.0	7.2	61.2	275.0

Annual : 1053      Max. : 90.0

Year : 1992 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	23.0	0.0	5.0	0.0	2.0	0.0	0.0	0.0	0.0	5.0	28.0
2	0.0	6.0	0.0	8.0	0.0	18.0	0.0	0.0	0.0	0.0	2.0	30.0
3	0.0	18.0	30.0	2.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	35.0
4	0.0	0.0	0.0	16.0	25.0	0.0	3.0	0.0	0.0	0.0	0.0	9.0
5	0.0	5.0	0.0	11.0	5.0	0.0	0.0	0.0	2.0	3.0	0.0	32.0
6	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	7.0
7	3.0	27.0	7.0	0.0	0.0	0.0	0.0	0.0	17.0	7.0	9.0	0.0
8	20.0	10.0	5.0	0.0	0.0	30.0	0.0	0.0	17.0	53.0	0.0	0.0
9	5.0	5.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	6.0	4.0
10	26.0	37.0	42.0	10.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
11	23.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	4.0	28.0
12	0.0	0.0	28.0	5.0	0.0	0.0	0.0	0.0	0.0	25.0	3.0	0.0
13	27.0	5.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0
14	0.0	63.0	2.0	37.0	0.0	0.0	0.0	0.0	0.0	8.0	33.0	4.0
15	11.0	3.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
16	8.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	6.0	24.0
17	12.0	36.0	2.0	4.0	0.0	0.0	0.0	0.0	17.0	11.0	8.0	0.0
18	0.0	15.0	0.0	105.0	0.0	0.0	0.0	0.0	0.0	5.0	18.0	0.0
19	6.0	32.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	8.0	0.0
20	0.0	0.0	24.0	10.0	0.0	5.0	0.0	0.0	0.0	3.0	6.0	0.0
21	0.0	15.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
22	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
23	9.0	34.0	6.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
24	5.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
25	7.0	0.0	10.0	3.0	11.0	0.0	0.0	0.0	36.0	0.0	21.0	0.0
26	14.0	0.0	0.0	2.0	0.0	0.0	0.0	55.0	0.0	30.0	3.0	8.0
27	6.0	0.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
28	0.0	8.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	5.0	31.0	0.0
29	8.0	2.0	45.0	45.0	0.0	0.0	0.0	53.0	0.0	21.0	0.0	21.0
30	3.0		1.0	0.0	0.0	0.0	0.0	7.0	0.0	19.0	5.0	0.0
31	4.0		3.0		0.0		0.0	10.0		0.0		1.0
<b>Max.</b>	27.0	63.0	45.0	105.0	25.0	30.0	3.0	55.0	36.0	53.0	33.0	35.0
<b>Total</b>	197.0	344.0	287.0	307.0	41.0	55.0	3.0	128.0	89.0	301.0	205.0	233.0

Annual : 2190      Max. : 105.0

" \* " : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1993 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 14.0	0.0	0.0	19.0	0.0	0.0	0.0	28.9	0.0	* 0.0	0.0	8.0
2	* 0.0	0.0	0.0	23.0	30.0	0.0	0.0	0.0	0.0	* 0.0	0.0	43.0
3	* 14.0	13.0	0.0	55.0	4.0	0.0	0.0	0.0	0.0	* 0.0	0.0	15.0
4	* 25.0	10.0	9.0	6.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0
5	* 0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
6	* 87.0	60.0	6.0	10.0	3.0	0.0	0.0	0.0	0.0	* 0.0	0.0	25.0
7	* 15.0	32.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	4.0
8	* 0.0	0.0	8.0	6.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
9	* 2.0	4.0	4.0	5.0	0.0	5.0	0.0	1.5	0.0	* 0.0	0.0	20.0
10	* 10.0	0.0	6.0	0.0	0.0	0.0	0.0	1.5	0.0	* 0.0	0.0	5.0
11	* 2.0	0.0	45.0	45.0	0.0	5.0	0.0	0.0	0.0	* 0.0	0.0	2.0
12	* 2.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	* 0.0	16.0	0.0
13	* 3.0	0.0	16.0	0.0	0.0	29.0	0.0	0.0	0.0	* 0.0	14.0	19.0
14	* 0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	* 0.0	5.0	30.0
15	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	7.0	0.0
16	* 0.0	35.0	0.0	7.0	6.0	0.0	11.0	0.0	0.0	* 0.0	42.0	0.0
17	* 6.0	36.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
18	* 28.0	62.0	21.0	0.0	0.0	3.0	0.0	0.0	0.0	* 0.0	0.0	0.0
19	* 17.0	0.0	16.0	11.0	0.0	0.0	0.0	0.0	0.0	* 0.0	7.0	0.0
20	* 3.0	5.0	9.0	3.0	9.0	9.0	0.0	0.0	0.0	* 7.0	10.0	27.0
21	* 0.0	0.0	57.0	10.0	0.0	0.0	0.0	0.0	0.0	* 0.0	12.0	6.0
22	* 38.0	2.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	10.0	9.0
23	* 75.0	5.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	30.0	28.0
24	* 12.0	8.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	20.0	4.0
25	* 10.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	7.0
26	* 24.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	20.0
27	* 12.0	5.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
28	* 0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	45.0	0.0
29	* 22.0		21.0	0.0	3.0	0.0	0.0	0.0	0.0	* 0.0	2.0	0.0
30	* 3.0		30.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	34.0	0.0
31	* 2.0		9.0		0.0		0.0	0.0		* 0.0		0.0
Max.	* 87.0	62.0	57.0	55.0	30.0	29.0	11.0	28.9	0.0	* 7.0	45.0	43.0
Total	* 426.0	301.0	332.0	293.0	55.0	55.0	11.0	31.9	0.0	* 7.0	254.0	275.0

Annual : \* 2040.9      Max. : \* 87.0

Year : 1994 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	5.0	11.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	8.0	30.0
2	0.0	8.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0	0.0
3	0.0	0.0	31.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
4	0.0	8.0	30.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
5	0.0	15.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.0	0.0
6	4.0	14.0	26.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	31.0	16.0
7	6.0	16.0	20.0	0.0	0.0	* 1.2	* 0.0	* 0.0	* 0.0	0.0	0.0	7.0
8	0.0	0.0	80.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	3.0
9	18.0	0.0	4.0	15.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	3.0
10	6.0	0.0	4.0	53.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	8.0
11	12.0	58.0	79.0	0.0	5.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	3.0
12	4.0	0.0	12.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
13	12.0	30.0	6.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	5.0	0.0	20.0
14	0.0	68.0	10.0	8.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0	0.0
15	0.0	0.0	5.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
16	6.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.0	6.0
17	52.0	10.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0	0.0
18	2.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
19	75.0	15.0	55.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	34.0	0.0
20	0.0	0.0	19.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0	0.0
21	24.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	37.0	0.0
22	8.0	0.0	6.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0	0.0
23	18.0	0.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
24	0.0	0.0	59.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
25	0.0	14.0	10.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	60.0	0.0
26	2.0	11.0	30.0	5.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	18.0	0.0
27	35.0	85.0	6.0	5.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
28	31.0	0.0	17.0	53.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
29	2.0		12.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	50.0	0.0
30	52.0		3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0	0.0
31	0.0		0.0		0.0		* 0.0	* 0.0		0.0		7.0
Max.	75.0	85.0	80.0	53.0	5.0	* 1.2	* 0.0	* 0.0	* 0.0	5.0	60.0	30.0
Total	369.0	357.0	539.0	142.0	5.0	* 1.2	* 0.0	* 0.0	* 0.0	5.0	278.0	103.0

Annual : \* 1799.2      Max. : \* 85.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1995 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	14.0	16.0	10.0	16.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0
2	29.0	18.0	19.0	19.0	0.0	0.0	6.0	0.0	0.0	0.0	10.0	0.0
3	0.0	65.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
4	38.0	9.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	21.0	0.0	7.0	3.0	23.0	0.0	32.0	0.0	0.0	0.0	19.0	28.0
6	34.0	44.0	0.0	68.0	0.0	0.0	6.0	0.0	0.0	0.0	5.0	4.0
7	11.0	7.0	5.0	1.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	20.0
8	2.0	23.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
9	0.0	0.0	7.0	6.0	17.0	49.0	8.0	0.0	0.0	0.0	0.0	0.0
10	14.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0
11	21.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	8.0	12.0
12	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	40.0
13	5.0	17.0	77.0	0.0	18.0	0.0	0.0	0.0	0.0	7.0	19.0	15.0
14	6.0	27.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0
15	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	21.0	0.0
16	0.0	3.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	11.0	0.0
17	13.0	0.0	0.0	14.0	11.0	0.0	0.0	0.0	0.0	17.0	1.0	15.0
18	7.0	0.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
19	17.0	0.0	66.0	33.0	0.0	10.0	0.0	0.0	0.0	4.0	82.0	0.0
20	7.0	20.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0
21	31.0	12.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	55.0	0.0
22	20.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	20.0	0.0
23	0.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	15.0	10.0
24	29.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	17.0	0.0
25	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
26	3.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	58.0	0.0
27	35.0	28.0	0.0	0.0	0.0	28.0	0.0	0.0	0.0	0.0	10.0	0.0
28	13.0	78.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	5.0		0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	77.0	0.0
30	0.0		96.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	38.0	78.0	96.0	68.0	23.0	49.0	32.0	0.0	0.0	57.0	82.0	40.0
<b>Total</b>	376.0	432.0	430.0	182.0	86.0	102.0	68.0	0.0	0.0	190.0	457.0	161.0

Annual : 2484 Max. : 96.0

Year : 1996 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	5.0	0.0	0.0	0.0	7.0	0.0	0.0	4.0	4.0	13.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0	39.0
3	25.0	21.0	17.0	0.0	0.0	3.0	0.0	0.0	0.0	55.0	0.0	7.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	0.0	6.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	6.0
7	0.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
8	15.0	29.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0
9	32.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	5.0	5.0
10	0.0	0.0	18.0	19.0	0.0	0.0	0.0	43.0	0.0	0.0	15.0	8.0
11	0.0	0.0	39.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0
12	0.0	58.0	7.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	15.0	3.0
13	28.0	27.0	58.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	8.0	23.0
14	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
15	0.0	0.0	13.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
16	12.0	60.0	30.0	0.0	18.8	0.0	7.0	0.0	0.0	0.0	3.0	0.0
17	27.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0
18	45.0	9.0	4.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
19	7.0	6.0	0.0	3.0	2.4	0.0	0.0	0.0	0.0	0.0	7.0	0.0
20	33.0	13.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
21	10.0	45.0	0.0	45.0	0.0	0.0	0.0	0.0	0.0	40.0	10.0	0.0
22	13.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
23	0.0	12.0	0.0	10.0	0.0	0.0	0.0	0.0	7.0	16.0	6.0	0.0
24	20.0	15.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	13.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	12.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	19.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	25.0
28	0.0	0.0	0.0	0.0	0.0	4.0	0.0	10.0	0.0	13.0	27.0	0.0
29	6.0	8.0	0.0	0.0	4.9	0.0	0.0	10.0	0.0	3.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	5.0
31	14.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	45.0	60.0	58.0	45.0	18.8	25.0	7.0	43.0	7.0	55.0	27.0	39.0
<b>Total</b>	331.0	387.0	294.0	117.0	26.7	53.0	14.0	63.0	7.0	220.0	168.0	215.0

Annual : 1896 Max. : 60.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT WONOGIRI

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1997 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	25.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
3	0.0	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
4	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	15.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
6	0.0	20.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
7	0.0	2.0	12.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	43.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	29.0	66.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
10	10.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
11	17.0	0.0	48.0	35.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	9.0	2.0	55.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	13.0
13	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
14	75.0	3.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	48.0	8.0	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	15.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	8.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	20.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
20	32.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	4.0	0.0	16.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	51.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	5.0
23	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
24	0.0	5.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	32.0
25	15.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	7.0	0.0
26	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
28	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	58.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	75.0	66.0	51.0	55.0	25.0	0.4	0.0	0.0	0.0	15.0	42.0	58.0
<b>Total</b>	317.0	253.0	147.0	267.0	83.0	0.4	0.0	0.0	0.0	26.0	94.0	159.0

Annual : 1346 Max. : 75.0

Year : 1998 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	30.0	115.0	14.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	68.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
3	0.0	7.0	48.0	13.0	32.0	14.0	0.0	0.0	0.0	31.0	33.0	14.0
4	0.0	75.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	15.0	0.0
5	0.0	0.0	51.0	0.0	0.0	13.0	0.0	0.0	0.0	38.0	25.0	0.0
6	0.0	0.0	0.0	0.0	20.0	0.0	0.0	12.2	0.0	0.0	63.0	0.0
7	49.0	16.0	0.0	3.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0
8	14.0	50.0	0.0	24.0	0.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0
9	0.0	50.0	24.0	0.0	20.0	0.0	7.0	0.0	0.0	8.0	6.0	0.0
10	7.0	10.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	7.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	22.0	0.0	24.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0
13	0.0	10.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	13.0	0.0	0.0	10.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	55.0	11.0	0.0	30.0	0.0	0.0	0.0	11.0	0.0	0.0
16	9.0	13.0	0.0	0.0	0.0	93.0	6.0	0.0	0.0	0.0	0.0	0.0
17	13.0	30.0	10.0	3.0	0.0	5.0	0.0	0.0	0.0	0.0	50.0	6.0
18	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	5.0	22.0
19	0.0	0.0	7.0	24.0	0.0	17.0	0.0	0.0	0.0	37.0	0.0	32.0
20	0.0	27.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0
21	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0
22	0.0	0.0	0.0	13.0	0.0	99.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	43.0	59.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	45.0	0.0	0.0
25	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.3	0.0	0.0	6.0
27	30.0	5.0	0.0	0.0	0.0	3.0	0.0	0.0	3.3	3.0	0.0	7.0
28	0.0	0.0	31.0	0.0	0.0	4.0	26.0	0.0	1.0	0.0	0.0	4.0
29	29.0		0.0	0.0	0.0	0.0	22.0	0.0	1.3	0.0	40.0	3.0
30	8.0		0.0	0.0	23.0	4.0	0.0	0.0	0.0	3.0	0.0	0.0
31	13.0		0.0		0.0		25.0	0.0		5.0		0.0
<b>Max.</b>	49.0	115.0	68.0	38.0	32.0	99.0	31.0	12.2	26.3	45.0	63.0	94.0
<b>Total</b>	202.0	500.0	515.0	216.0	129.0	302.0	146.0	17.7	32.0	204.0	239.0	221.0

Annual : 2724 Max. : 115.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT WONOGIRI

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 1999 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.0	19.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0
3	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	0.0
4	30.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	136.0	25.0
5	4.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	3.0
6	0.0	9.0	0.0	0.0	0.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0
7	0.0	12.0	61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	36.0	0.0	13.0	0.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	38.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	16.0	4.0
10	60.0	20.0	27.0	10.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	49.0
11	23.0	25.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	71.0
12	32.0	0.0	28.0	0.0	31.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	5.0	0.0	0.0	20.0	0.0	0.0	5.0	0.0	36.0
14	0.0	56.0	0.0	10.0	0.0	24.0	0.0	0.0	0.0	0.0	19.0	0.0
15	0.0	6.0	10.0	6.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	7.0	0.0
17	0.0	21.0	23.0	46.0	0.0	5.0	0.0	0.0	0.0	68.0	0.0	0.0
18	0.0	0.0	21.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	0.0
20	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0
21	84.0	21.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	6.0	0.0
22	0.0	53.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.0
23	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	21.0	8.0
24	50.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	0.0	26.0
25	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0
26	6.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0
27	0.0	0.0	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
28	0.0	34.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	45.0
29	31.0		0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	11.0		0.0	8.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
31	4.0		0.0		0.0		0.0	0.0		0.0		47.0
<b>Max.</b>	84.0	56.0	61.0	46.0	39.0	24.0	37.0	0.0	0.0	68.0	136.0	71.0
<b>Total</b>	453.0	377.0	286.0	113.0	85.0	35.0	57.0	0.0	0.0	255.0	267.0	396.0

Annual : 2324      Max. : 136.0

Year : 2000 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	15.0	8.0	13.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	20.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	20.0	49.0	26.0	17.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
4	25.0	60.0	37.0	8.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	36.0	22.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
6	0.0	25.0	5.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
7	4.0	20.0	17.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	15.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	10.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0
11	8.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	20.0
12	0.0	0.0	25.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	59.0
13	0.0	13.0	9.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0
14	0.0	10.0	50.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	6.0
15	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
16	0.0	6.0	3.0	16.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
17	0.0	0.0	0.0	29.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0
18	0.0	18.0	0.0	30.0	28.0	0.0	0.0	0.0	0.0	27.0	0.0	0.0
19	10.0	0.0	10.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	35.0	0.0	17.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	4.0	38.0	0.0	10.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	25.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	0.0
25	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0
27	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	0.0	2.0
28	0.0	15.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0	15.0	0.0
29	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	5.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	35.0	60.0	50.0	42.0	33.0	47.0	0.0	24.0	0.0	45.0	26.0	59.0
<b>Total</b>	141.0	423.0	295.0	330.0	69.0	79.0	0.0	24.0	0.0	92.0	137.0	135.0

Annual : 1725      Max. : 60.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 2001 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	23.0	0.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0
2	39.0	39.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	6.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	33.0	13.0	25.0	42.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0
5	13.0	2.0	7.0	19.0	0.0	12.0	0.0	0.0	0.0	0.0	20.0	0.0
6	0.0	26.0	8.0	32.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
7	19.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	48.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0
9	10.0	22.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
11	8.0	0.0	20.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	12.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
13	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	3.0	0.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	6.0	0.0
16	31.0	8.0	12.0	0.0	0.0	0.0	34.0	0.0	0.0	0.0	16.0	0.0
17	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	14.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0
19	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
20	4.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0
21	34.0	0.0	4.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
22	21.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	24.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	25.0	0.0	12.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	18.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	5.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	3.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	59.0		32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
30	4.0		8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
31	0.0		4.0		0.0		0.0	0.0		0.0		0.0
Max.	59.0	46.0	32.0	32.0	42.0	35.0	34.0	0.0	0.0	0.0	44.0	0.0
Total	410.0	215.0	305.0	196.0	44.0	148.0	34.0	0.0	0.0	0.0	181.0	0.0

Annual : 1533 Max. : 59.0

Year : 2002 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
3	0.0	0.0	0.0	30.0	24.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
6	0.0	0.0	0.0	18.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	27.0
17	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0
18	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.0	14.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	3.0
31	0.0		0.0		0.0		0.0	0.0		0.0		24.0
Max.	0.0	0.0	0.0	37.0	24.0	0.0	0.0	0.0	0.0	0.0	59.0	64.0
Total	0.0	0.0	0.0	220.0	34.0	0.0	0.0	0.0	0.0	0.0	170.0	307.0

Annual : 731 Max. : 64.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 2003 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
3	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
5	99.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
21	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
22	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
23	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
26	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
27	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	10.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	99.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
Total	271.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	251.0

Annual : 522 Max. : 99.0

Year : 2004 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	30.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	6.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	66.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	67.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	7.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	92.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	24.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	92.0	0.0	66.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	289.0	0.0	264.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Annual : 596 Max. : 92.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI**

Station No. : 21  
 Basin : Upper Solo  
 Elevation : 136 m

Year : 2005 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0									
2	0.0	0.0	8.0									
3	0.0	0.0	0.0									
4	0.0	31.0	14.0									
5	0.0	0.0	0.0									
6	0.0	0.0	0.0									
7	0.0	0.0	10.0									
8	0.0	15.0	0.0									
9	0.0	0.0	0.0									
10	0.0	0.0	0.0									
11	0.0	0.0	0.0									
12	0.0	55.0	27.0									
13	0.0	77.0	0.0									
14	31.0	0.0	82.0									
15	0.0	7.0	0.0									
16	0.0	9.0	16.0									
17	0.0	0.0	0.0									
18	0.0	21.0	0.0									
19	55.0	0.0	0.0									
20	23.0	12.0	0.0									
21	0.0	0.0	0.0									
22	33.0	0.0	0.0									
23	0.0	0.0	9.0									
24	0.0	8.0	0.0									
25	25.0	0.0	16.0									
26	10.0	0.0	7.0									
27	0.0	13.0	0.0									
28	0.0	0.0	42.0									
29	24.0		17.0									
30	0.0		43.0									
31	0.0		18.0									
<b>Max.</b>	55.0	77.0	82.0									
<b>Total</b>	201.0	248.0	309.0									
<b>Annual :</b>	758		<b>Max. :</b>	82.0								

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1975 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
1	*0.0	*8.2	*0.0	*21.3	*0.0	*0.0	*0.9	*0.0	*0.0	*7.1	*0.0	*32.7		
2	*0.0	*1.6	*25.1	*25.6	*0.0	*0.0	*0.0	*0.0	*0.0	*27.8	*0.0	*7.6		
3	*0.0	*2.7	*19.6	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*2.2	*0.0	*0.0		
4	*25.1	*1.6	*9.3	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*21.3	*3.5	*15.3		
5	*0.0	*15.8	*24.0	*0.0	*31.4	*0.0	*0.0	*0.0	*0.0	*0.5	*4.4	*2.7		
6	*3.8	*1.1	*38.2	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*2.7	*0.9	*5.5		
7	*14.7	*26.7	*25.6	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*8.7	*4.4	*10.4		
8	*3.8	*6.5	*13.6	*10.9	*0.0	*0.0	*0.0	*0.0	*0.0	*2.7	*5.2	*1.6		
9	*5.5	*29.4	*5.5	*6.5	*147.4	*0.0	*0.0	*0.0	*45.4	*30.0	*0.0	*25.6		
10	*0.0	*8.7	*9.8	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*1.6	*1.7	*1.6		
11	*2.7	*7.1	*39.8	*16.4	*0.0	*0.0	*0.0	*0.0	*56.7	*0.0	*6.1	*0.0		
12	*4.9	*3.8	*31.1	*44.7	*31.4	*0.0	*0.0	*0.0	*3.5	*0.0	*10.5	*2.7		
13	*15.8	*6.5	*12.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.9	*7.6	*5.2	*2.7		
14	*4.9	*25.1	*5.5	*0.0	*27.9	*0.0	*0.0	*0.0	*0.9	*3.8	*19.2	*29.4		
15	*19.6	*1.6	*9.8	*6.0	*9.6	*0.0	*0.0	*0.0	*0.9	*0.0	*54.9	*18.0		
16	*2.7	*25.6	*16.4	*0.0	*14.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*6.0		
17	*7.6	*10.4	*27.3	*3.8	*7.8	*0.0	*0.0	*3.3	*0.0	*0.0	*0.0	*2.2		
18	*32.2	*30.5	*0.0	*33.8	*0.0	*0.0	*0.0	*0.0	*4.4	*0.0	*0.0	*2.2		
19	*1.6	*8.7	*2.2	*10.9	*0.0	*0.0	*0.0	*17.4	*0.0	*0.0	*0.0	*1.1		
20	*13.6	*0.0	*0.0	*12.0	*0.0	*2.2	*2.6	*0.0	*0.0	*0.0	*29.7	*0.5		
21	*8.7	*1.6	*28.9	*7.6	*32.3	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0		
22	*10.9	*8.2	*9.3	*0.0	*10.5	*0.0	*0.0	*0.0	*0.0	*3.8	*0.0	*0.0		
23	*6.0	*8.7	*6.5	*4.9	*0.0	*0.0	*0.0	*0.0	*0.0	*27.8	*0.0	*13.6		
24	*3.8	*4.4	*9.8	*27.8	*0.0	*0.0	*0.0	*0.0	*0.0	*22.3	*0.0	*1.1		
25	*57.2	*0.0	*24.5	*0.5	*4.4	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*16.9		
26	*2.7	*4.9	*1.1	*0.0	*5.2	*0.0	*0.0	*8.7	*0.0	*0.5	*0.0	*0.0		
27	*20.2	*3.8	*15.3	*3.3	*0.0	*0.0	*0.0	*0.0	*0.0	*6.0	*1.7	*34.3		
28	*1.1	*21.8	*0.5	*2.2	*0.0	*0.0	*0.0	*0.0	*4.4	*7.6	*0.0	*19.6		
29	*27.8		*30.5	*6.5	*0.0	*0.0	*0.0	*0.0	*1.7	*40.9	*0.0	*10.9		
30	*1.6		*12.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*2.7	*0.0	*12.0		
31	*8.7		*73.6		*0.0							*15.3		
Max.	*57.2	*30.5	*73.6	*44.7	*147.4	*2.2	*2.6	*17.4	*56.7	*40.9	*54.9	*34.3		
Total	*307.4	*275.3	*526.5	*244.7	*321.8	*2.2	*3.5	*29.4	*118.6	*227.8	*147.4	*291.6		
Annual :	*2496.4												Max. :	*147.4

Year : 1976 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
1	13.1	6.1	21.8	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	12.2	*61.1		
2	18.3	5.2	1.7	4.4	*1.6	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0		
3	17.4	0.0	2.6	0.0	*0.0	0.0	1.8	*7.1	*0.0	0.0	4.4	*0.0		
4	18.3	0.0	13.1	0.9	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*3.5		
5	45.4	0.0	0.0	6.1	*0.0	0.0	0.0	*0.0	*0.0	13.1	0.0	*0.0		
6	43.6	0.9	0.0	29.7	*2.7	0.0	0.0	*0.0	*0.0	16.6	0.0	*0.0		
7	54.1	0.0	0.0	0.0	*14.2	0.0	0.0	*0.0	*0.0	2.6	0.0	*0.0		
8	12.2	0.0	0.0	0.0	*10.4	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0		
9	7.0	30.5	34.0	38.4	*6.5	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0		
10	0.0	29.7	0.9	0.0	*2.2	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0		
11	7.8	30.5	40.1	0.0	*0.0	4.1	0.0	*0.0	*0.0	0.0	0.0	*7.0		
12	13.1	71.5	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	2.6	0.0	*5.2		
13	3.5	30.5	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	10.5	0.0	*0.0		
14	21.8	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	8.7	1.7	*20.1		
15	8.7	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	1.7	4.4	*14.8		
16	9.6	0.0	6.1	0.0	*0.0	0.0	0.0	*0.0	*0.0	8.7	0.0	*0.0		
17	52.3	26.2	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	22.7	3.5	*0.0		
18	10.5	1.7	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	16.6	26.2	*0.0		
19	11.3	21.8	5.2	2.6	*0.0	0.0	0.0	*0.0	*0.0	0.9	0.0	*0.0		
20	25.3	19.2	9.6	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	1.7	*0.0		
21	0.0	0.0	4.4	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0		
22	0.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	9.6	*0.0		
23	0.0	6.1	0.0	0.0	*0.0	0.0	1.4	*0.0	*0.0	0.0	7.0	*0.0		
24	19.2	13.1	0.0	0.0	*0.0	0.0	1.4	*0.0	*0.0	3.5	0.0	*0.0		
25	0.0	0.9	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0		
26	0.0	1.7	0.0	25.3	*0.0	0.0	0.0	*1.6	*1.6	0.0	19.2	*0.0		
27	0.0	30.5	0.0	0.0	*0.0	0.0	0.5	*0.0	*0.0	11.3	6.1	*0.9		
28	0.0	0.0	0.0	0.0	*0.0	0.0	0.5	*5.5	*0.0	12.2	0.0	*4.4		
29	0.0	0.0	0.0	0.0	*0.0	0.0	0.5	*0.0	*5.5	0.0	0.0	*4.4		
30	0.0		43.6	0.0	*0.0	0.0	0.0	*0.0	*0.0	9.6	0.0	*2.6		
31	0.0		21.8		*4.4		0.0	*0.0		8.7		*0.0		
Max.	54.1	71.5	43.6	38.4	*14.2	4.1	1.8	*7.1	*5.5	22.7	26.2	*61.1		
Total	412.6	326.2	205.0	107.3	*42.0	4.1	6.0	*14.2	*7.1	150.0	95.9	*123.9		
Annual :	*1494.1												Max. :	*71.5

\*\* : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1977 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	5.5
2	* 0.0	2.6	0.0	17.4	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.9
3	* 0.0	0.9	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.5	* 0.0	0.0	0.0
4	* 13.1	0.0	1.7	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	* 7.0	0.9	8.7	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	28.5
6	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.9
7	* 0.0	29.7	0.0	8.7	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0
8	0.0	0.0	37.5	43.6	0.0	23.5	* 0.0	* 0.0	* 0.0	* 0.0	0.0	26.6
9	* 0.0	13.1	14.0	51.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	17.0
10	* 0.0	0.0	0.0	0.0	0.0	15.7	* 0.0	* 0.0	* 0.0	* 0.0	0.0	20.2
11	* 0.0	3.5	7.8	1.7	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.9
12	* 0.0	5.2	0.9	0.0	0.0	6.1	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.9
13	* 10.5	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 3.8	* 0.0	0.0	0.0
14	* 13.1	41.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
15	* 0.0	9.6	0.0	0.0	0.0	4.4	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
16	* 4.4	2.6	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.7	0.0
17	* 0.0	0.0	7.8	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
18	* 23.5	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	* 63.7	0.0	8.7	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.9	0.0
20	* 54.1	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	5.5	0.0
21	* 78.5	27.9	11.3	1.7	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
22	* 22.7	0.0	4.4	5.2	0.0	13.1	* 0.0	* 0.0	* 0.0	* 0.0	86.3	0.0
23	* 52.3	0.0	12.2	4.4	14.8	0.0	* 0.0	* 0.0	* 0.0	* 0.0	12.8	0.0
24	* 56.7	11.3	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	9.6
25	* 0.0	0.9	0.0	12.2	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
26	* 0.0	0.0	9.6	21.8	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	30.3
27	* 0.0	21.8	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
28	* 0.0	19.2	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
29	* 0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.5	0.0	0.0
30	* 0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 3.8	0.0	4.1
31	* 8.7		1.7		47.1		* 0.0	* 0.0		* 0.5		3.7
<b>Max.</b>	* 78.5	41.0	37.5	51.5	47.1	23.5	* 0.0	* 0.0	* 3.8	* 3.8	86.3	30.3
<b>Total</b>	* 408.2	190.1	126.5	168.3	61.9	62.8	* 0.0	* 0.0	* 4.4	* 4.9	109.2	161.1

Annual : \* 1297.4      Max. : \* 86.3

Year : 1978 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.2	0.9	0.0	0.0	5.5	0.0	16.1	36.3	0.0	0.0	0.0	0.0
2	1.8	0.5	1.4	24.8	0.0	18.4	3.2	0.0	2.3	0.0	0.0	8.7
3	0.5	9.2	0.0	0.0	0.0	27.5	2.3	0.0	5.0	16.1	0.0	1.4
4	40.8	11.9	0.0	5.0	90.9	13.8	2.3	0.0	0.5	0.9	0.0	0.5
5	0.5	2.8	9.6	6.9	0.0	0.0	0.0	0.0	0.0	0.0	26.6	0.0
6	6.0	13.3	20.2	1.4	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.9	4.6	0.5	11.0	0.0	7.3	0.0	0.0	0.0
8	0.0	0.0	1.4	16.5	0.0	17.4	9.2	0.0	0.5	0.0	0.5	4.6
9	0.0	0.0	0.0	6.4	0.0	44.1	6.0	0.0	0.5	0.0	29.4	1.8
10	2.8	0.0	0.0	0.0	1.4	2.8	0.0	0.0	0.0	0.0	1.8	21.1
11	4.6	0.0	10.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	5.0	0.0	0.5	0.9	12.8	0.0	5.5	0.0	0.0	0.0	6.9	7.3
13	0.0	0.0	15.1	0.0	1.8	51.9	0.0	0.0	0.0	0.0	3.7	0.5
14	0.0	0.0	1.8	0.0	1.4	0.0	0.0	0.0	0.0	0.0	64.2	0.5
15	0.0	0.0	12.4	0.0	6.9	0.0	0.0	0.0	0.0	0.0	7.3	65.6
16	11.0	0.0	0.9	0.0	0.5	0.0	0.0	48.6	0.0	6.9	8.3	3.7
17	11.0	0.0	0.9	0.0	5.5	26.6	0.0	0.0	0.0	0.0	0.5	12.8
18	66.5	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0	1.8	0.0	0.0
19	3.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0
20	0.9	4.6	9.6	0.0	1.4	0.0	0.0	0.0	45.4	1.4	0.5	0.0
21	3.2	7.3	1.4	0.0	4.6	0.0	3.7	0.0	0.0	0.9	14.2	3.2
22	18.4	11.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
23	22.0	4.6	0.5	0.0	2.8	18.4	0.0	0.0	0.0	0.0	0.0	0.0
24	22.9	13.3	0.5	0.0	0.0	3.7	0.0	0.0	0.0	0.9	0.0	0.9
25	11.0	13.8	0.0	5.5	0.0	51.4	0.0	0.0	0.0	0.0	0.0	28.0
26	10.6	5.0	20.2	4.1	0.9	0.0	0.5	0.0	0.0	0.0	0.0	12.8
27	0.0	4.6	4.6	0.0	2.8	0.0	0.5	0.0	0.0	1.8	0.0	6.0
28	8.0	0.0	0.0	0.0	1.4	0.5	0.0	0.0	0.0	0.0	0.0	4.6
29	26.4		4.6	0.9	0.0	33.5	0.0	0.0	0.0	0.0	0.0	0.0
30	24.8		8.3	0.0	6.4	0.0	0.0	0.0	0.0	0.0	11.9	28.9
31	0.0		7.3		0.0		0.0	0.0		0.0		17.9
<b>Max.</b>	66.5	13.8	20.2	24.8	90.9	51.9	16.1	48.6	45.4	16.1	64.2	65.6
<b>Total</b>	303.6	104.6	132.3	78.0	151.4	346.5	60.1	84.9	62.9	30.7	176.2	230.8

Annual : 1,762      Max. : 90.9

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1979 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	16.5	0.0	16.5	0.0	28.8	40.1	0.0	0.0	0.0	0.0	26.2	21.8
2	8.3	0.0	11.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	3.5	14.8
3	2.8	0.0	0.9	5.2	34.0	0.0	0.0	0.0	0.0	0.0	7.0	8.7
4	0.9	11.9	30.3	6.1	34.9	0.0	0.0	0.0	0.0	0.0	43.6	29.7
5	0.9	0.0	0.9	0.0	43.6	26.2	0.0	0.0	0.0	0.0	0.0	3.5
6	0.0	0.0	0.0	32.3	43.6	0.0	0.0	0.0	0.0	0.0	0.0	15.7
7	4.6	4.6	4.6	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	8.3	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
9	10.1	0.9	11.9	0.0	15.7	0.0	0.0	0.0	0.0	0.0	5.2	48.0
10	1.8	18.4	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	7.3	0.0	22.9	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0
12	23.9	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
13	6.4	0.0	51.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	37.6	0.0	2.8	7.0	27.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0
15	10.1	2.8	1.8	26.2	34.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	5.5	26.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
17	9.2	0.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	12.2
18	13.8	4.6	0.0	3.5	29.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	23.9	1.8	13.8	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	5.5	0.0	22.9	0.0	43.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	30.3	25.7	48.6	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	15.6	11.9	0.0	0.0	39.2	0.0	0.0	0.0	0.0	0.0	0.0	16.6
23	4.6	0.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0	36.7	0.0	21.8
24	0.9	1.8	0.0	28.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	10.1	37.6	0.0	32.3	0.0	0.0	0.0	0.0	0.0	0.0	14.0	16.6
26	20.2	0.0	28.5	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.1
27	0.0	22.9	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	7.3	6.4	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	38.4	0.0
31	0.0		7.3		0.0		0.0	0.0		0.9		4.4
Max.	37.6	37.6	51.4	48.0	43.6	40.1	0.0	0.0	2.8	36.7	43.6	48.0
Total	273.5	152.3	340.5	279.1	405.6	66.3	0.0	0.0	2.8	43.1	156.1	255.6
Annual :	1975		Max. :		51.4							

Year : 1980 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.0	0.0	7.0	35.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6
2	6.1	50.6	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
3	0.0	0.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	5.2	21.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	6.1	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	9.6	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	1.3	10.5
7	26.2	0.0	13.1	21.8	8.3	0.0	7.8	16.6	0.0	0.0	0.0	0.0
8	31.4	143.9	14.8	27.9	17.4	0.0	0.0	0.0	0.0	0.0	2.2	0.0
9	30.5	0.0	10.5	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
10	24.4	62.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
11	4.4	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
12	5.2	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	6.1	2.6	0.0	26.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
14	0.0	8.7	0.0	44.5	0.0	0.0	2.6	0.0	0.0	8.7	0.0	0.0
15	0.0	2.6	0.0	4.4	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0
16	0.0	0.0	24.4	30.5	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0
17	1.7	14.0	34.0	6.1	0.0	0.0	0.0	5.2	0.0	0.0	41.9	0.0
18	0.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
19	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0	6.1	0.0
21	39.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
22	0.0	39.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0
23	1.7	41.0	0.0	7.0	0.0	0.0	18.3	0.0	0.0	0.0	4.4	10.0
24	2.6	6.1	0.0	2.6	0.0	0.0	0.0	0.0	0.0	7.8	0.9	10.0
25	14.8	4.4	52.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	0.0
28	30.5	14.8	0.0	0.0	0.0	0.0	0.0	0.0	1.8	8.7	0.0	0.0
29	23.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.2
30	21.8		66.3	0.0	0.0	0.0	0.0	0.0	0.0	43.6	21.8	0.0
31	2.6		0.0		0.0		19.6	0.0		19.2		39.2
Max.	39.2	143.9	66.3	44.5	21.1	13.1	19.6	16.6	1.8	43.6	41.9	39.2
Total	280.0	417.8	280.8	266.0	54.1	13.1	50.2	31.4	1.8	92.5	106.4	125.6
Annual :	1720		Max. :		143.9							

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1981 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	56.7	0.0	26.2
2	8.7	0.0	6.1	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	4.4
3	4.4	1.7	0.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	27.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	14.0
5	0.0	3.1	7.0	0.0	7.8	0.0	0.0	0.0	0.0	51.5	6.1	0.0
6	0.0	4.4	20.1	0.0	0.0	0.0	10.5	0.0	0.0	8.7	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
8	34.9	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
9	0.0	17.4	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
10	0.0	0.0	23.5	0.0	0.0	0.0	0.0	0.0	0.0	12.2	2.6	34.9
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0
12	0.0	7.8	0.0	0.0	0.0	0.0	15.7	0.0	0.0	0.0	14.8	0.0
13	13.1	7.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	14.0	2.6	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	30.5	0.0
15	19.2	0.0	0.0	18.3	0.0	0.0	17.4	0.0	0.0	0.0	0.0	7.0
16	0.0	0.0	0.0	7.8	0.0	0.0	0.9	0.0	0.0	0.0	11.3	0.0
17	0.0	0.0	0.0	23.5	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0
18	0.0	13.1	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	7.0	0.0
19	27.0	0.0	36.6	6.1	0.0	0.0	5.7	0.0	0.0	0.0	0.0	3.5
20	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
22	0.0	14.0	17.4	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	49.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0	22.7	0.0	0.0
25	13.1	23.5	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.8
26	17.4	0.0	4.4	0.0	0.0	0.0	0.0	0.0	18.3	0.0	5.2	0.0
27	52.3	0.0	7.0	6.1	0.0	5.2	0.0	0.0	6.1	0.0	0.0	0.0
28	0.0	18.3	4.4	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	3.5	0.0	7.8	0.0	0.0	26.2	0.0
30	18.3		12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	15.7
31	0.0		3.5		0.0		0.0	0.0		0.0		0.0
Max.	52.3	27.0	36.6	23.5	9.6	8.7	20.9	7.8	18.3	56.7	30.5	34.9
Total	272.1	155.7	163.1	79.4	29.7	20.9	79.8	7.8	33.1	151.8	138.7	157.9
Annual :	1290		Max. :		56.7							

Year : 1982 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	41.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	4.4	3.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.5
6	9.6	58.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	18.3	20.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7
9	8.7	26.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	18.3	20.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6	0.0
11	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	21.8	17.4	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	5.2	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1
15	0.0	0.0	18.3	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
16	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
17	17.4	0.0	0.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.8
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6
21	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1
22	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
24	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	67.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.3
28	20.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	9.6		0.0		0.0		0.0	0.0		0.0		0.0
Max.	20.9	67.2	20.1	19.2	0.0	0.0	0.0	0.0	0.0	0.0	16.6	64.5
Total	123.9	274.7	59.3	45.4	0.0	0.0	0.0	0.0	0.0	0.0	24.4	224.2
Annual :	752		Max. :		67.2							

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1983 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	13.3	1.7	0.0	2.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
2	2.2	1.1	0.0	9.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	2.5	22.0	2.5	2.0	18.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	2.3	3.6	1.1	16.3	9.6	0.0	0.0	0.0	0.0	33.0	18.5	0.0
5	55.9	7.0	11.8	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	46.0	4.5	0.0	7.0	36.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.5	0.0	0.2	4.6	0.0	0.0	0.0	0.0	0.0	2.0	5.7
8	26.8	52.0	0.7	33.2	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	4.0	69.3	0.0	3.1	0.4	0.0	0.0	0.0	0.0	4.0	0.0
10	7.9	0.0	12.9	2.9	0.0	5.0	0.0	0.0	0.0	0.0	6.5	0.0
11	3.2	0.2	23.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
12	17.8	1.9	21.3	0.4	32.6	0.0	0.0	0.0	0.0	0.0	14.5	0.0
13	2.0	15.4	1.3	19.5	1.1	0.0	0.0	0.0	0.0	4.0	0.0	1.5
14	6.5	6.2	0.9	16.0	1.6	0.0	0.0	0.0	0.0	0.0	3.4	0.0
15	0.2	0.0	0.2	67.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	3.3	25.1	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	3.1	4.8	2.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	1.8	1.6	45.4	1.8	0.0	0.0	0.0	0.0	0.0	1.8	2.4	0.0
19	58.5	0.0	4.0	0.0	1.4	0.0	0.0	0.0	0.0	1.8	4.4	0.0
20	2.0	0.5	45.5	0.0	5.2	0.0	0.0	0.0	0.0	0.0	8.7	0.0
21	0.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	1.0
22	0.0	0.0	0.0	0.0	38.1	0.0	0.0	0.0	0.0	0.0	7.0	0.5
23	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.5	0.0
24	0.0	0.0	3.3	0.0	0.1	0.0	0.0	0.0	0.0	8.2	4.0	18.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	17.0
26	0.0	0.0	0.0	3.7	0.9	0.0	0.0	0.0	0.0	0.0	11.7	26.0
27	0.6	19.5	3.9	26.0	1.6	0.0	0.0	0.0	0.0	32.0	5.5	0.0
28	0.0	12.7	0.0	0.0	18.6	0.0	0.0	0.0	0.0	1.8	1.0	22.0
29	0.0		0.0	0.8	0.0	0.0	0.0	0.0	0.0	51.0	4.9	42.0
30	3.2		28.8	2.8	0.0	0.0	0.0	0.0	0.0	5.0	4.7	43.0
31	2.0		0.1		0.0		0.0	0.0		0.0		0.0
Max.	58.5	52.0	69.3	67.6	38.1	5.0	0.0	0.0	0.0	51.0	18.5	43.0
Total	255.2	160.8	307.8	220.6	229.8	5.4	0.0	0.0	0.0	138.6	119.4	180.7
Annual :	1618		Max. :		69.3							

Year : 1984 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.5	0.0	0.0	15.8	3.0	0.0	0.0	0.0	0.0	0.0	1.0
2	74.0	31.0	56.7	2.3	9.0	0.0	0.0	0.0	0.0	34.5	1.0	7.0
3	4.0	24.2	0.9	0.0	2.2	0.0	0.0	0.0	2.8	4.3	0.0	0.0
4	81.0	16.5	0.0	5.7	0.0	0.0	0.9	0.0	27.0	0.0	3.0	0.0
5	1.5	25.7	12.2	7.5	17.5	0.0	1.3	0.0	4.0	0.2	0.0	53.5
6	6.5	72.5	34.9	75.0	0.0	0.0	0.0	0.0	23.5	15.0	0.0	21.0
7	0.0	0.5	13.1	53.5	0.0	0.0	0.0	0.0	6.0	0.0	0.0	7.5
8	1.0	0.0	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.0
9	74.0	0.0	4.4	3.0	0.0	18.5	0.0	0.0	1.0	0.0	0.0	0.0
10	48.5	3.0	25.3	76.5	0.0	0.0	0.0	0.0	21.5	3.9	0.0	71.5
11	13.0	32.5	0.0	4.6	0.1	0.6	0.0	0.0	0.3	0.5	0.0	0.0
12	1.0	22.3	18.3	0.8	4.8	0.0	0.0	0.0	1.2	41.5	0.3	18.0
13	48.5	0.7	3.5	8.1	2.2	0.0	0.0	0.0	14.2	0.0	0.0	2.0
14	7.0	7.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	1.5	0.0	8.5
15	13.5	2.4	0.0	2.8	0.0	0.0	0.0	0.0	0.5	0.0	35.0	12.8
16	33.5	4.6	69.8	0.0	2.0	0.0	0.1	0.0	0.0	0.0	1.0	9.5
17	1.0	0.0	10.5	0.0	6.5	0.0	3.0	0.0	0.0	0.0	5.7	0.8
18	0.0	22.2	0.0	0.7	0.0	0.0	0.0	0.0	0.2	0.0	7.0	0.0
19	0.0	2.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	4.0	24.4	0.0	3.9	2.7	0.0	0.0	0.0	5.0	0.0	0.0	0.0
21	13.0	7.7	0.0	1.5	0.0	0.0	0.0	0.0	0.5	0.0	6.0	0.0
22	11.5	4.9	56.7	22.8	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
23	25.7	2.8	0.0	0.3	26.8	0.0	0.5	0.0	0.0	0.0	4.5	31.8
24	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	24.0	18.0
25	35.0	0.4	0.0	16.6	0.0	0.0	0.0	0.0	0.0	0.0	1.0	11.0
26	1.0	0.4	0.0	0.0	0.0	0.0	0.0	16.0	3.3	0.0	0.0	4.0
27	27.5	25.5	0.0	3.5	0.0	0.0	0.0	0.0	1.0	0.0	0.0	9.5
28	33.8	34.4	0.0	33.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
29	9.2	0.0	15.7	28.0	0.0	0.0	0.0	0.5	0.5	0.0	6.5	4.0
30	25.5		0.0	5.0	0.0	7.0	0.0	0.0	1.0	2.4	25.0	0.8
31	22.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	81.0	72.5	69.8	76.5	26.8	18.5	3.0	16.0	27.0	41.5	35.0	71.5
Total	623.2	368.1	343.6	359.1	90.1	29.1	5.8	16.8	114.3	103.8	121.0	305.7
Annual :	2481		Max. :		81.0							

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1985 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.8	0.0	11.8	5.5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
2	0.2	7.3	1.0	9.5	0.0	0.8	0.0	15.7	0.0	0.0	0.0	18.3
3	0.0	2.0	42.0	0.7	0.0	42.5	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	3.7	24.5	38.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
5	0.0	0.0	56.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	3.0	0.0
6	0.0	26.0	55.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	45.4
7	8.5	5.0	72.5	0.0	0.0	18.3	0.0	0.0	0.3	0.0	0.0	0.0
8	2.3	2.0	36.0	0.0	0.0	16.8	0.0	0.0	0.2	0.0	0.0	0.0
9	5.0	69.5	0.0	1.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	19.0	1.2	0.0	48.5	0.2	0.0	0.0	0.0	0.0	0.0	1.5	0.0
11	0.0	2.0	0.0	27.0	0.2	0.0	11.9	0.0	0.0	0.0	0.0	0.0
12	3.5	0.0	0.0	83.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	11.5	85.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	9.5	1.2	0.0	0.8	0.0	0.0	0.0	0.0	0.0	14.8	0.0	0.0
15	93.5	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	16.0	0.0	45.0	2.2	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0
17	11.3	2.5	0.0	0.4	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
18	2.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	22.5	0.0
19	53.8	3.0	0.0	0.0	25.3	0.2	0.0	0.0	0.0	0.0	4.0	12.2
20	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0
21	0.0	29.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	33.1	5.0	47.1
22	0.0	1.5	0.0	6.0	0.0	19.3	0.0	0.0	0.0	0.0	19.0	0.0
23	3.0	54.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	17.5	0.0	2.8	12.8	0.0	0.0	1.2	0.4	0.0	24.4	0.0	30.5
25	0.0	27.0	1.5	0.0	0.0	0.2	0.0	0.0	0.0	41.0	35.3	0.0
26	6.5	3.0	73.0	4.7	0.0	0.0	0.0	0.0	0.0	4.4	13.7	0.0
27	7.8	3.8	1.3	3.3	0.0	0.0	0.0	0.0	1.0	0.0	2.7	0.0
28	13.2	54.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	17.4	19.0	12.2
29	9.0		15.1	0.0	26.5	0.0	0.0	1.0	0.0	0.0	3.4	9.6
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	93.5	85.0	73.0	83.5	26.5	42.5	11.9	15.7	1.0	41.0	35.3	47.1
Total	298.9	398.2	438.7	261.5	62.2	99.6	13.1	20.4	2.5	135.2	133.1	177.9
Annual :	2041		Max. :		93.5							

Year : 1986 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.5	0.0	0.0	0.0	0.0	2.8	* 0.0	* 0.0	0.0	0.0	0.9	36.0
2	1.6	0.0	14.0	39.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	2.5	0.0
3	5.7	0.0	1.0	0.0	0.0	2.5	* 0.0	* 0.0	0.0	0.0	5.5	0.0
4	1.5	4.1	44.6	16.5	0.0	4.5	* 0.0	* 0.0	0.0	0.0	192.0	0.0
5	1.0	1.5	1.6	7.6	0.0	6.1	* 0.0	* 0.0	0.0	0.0	56.2	0.0
6	36.5	5.6	2.2	0.2	47.5	0.0	* 0.0	* 0.0	0.0	0.0	51.3	0.0
7	0.4	0.0	61.0	0.0	0.0	0.0	* 0.0	* 0.0	38.4	0.0	67.4	0.8
8	4.2	17.2	5.7	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	22.0	0.0
9	8.0	78.7	8.5	0.0	0.0	0.0	* 0.0	* 0.0	0.0	16.4	8.0	0.0
10	31.5	17.2	13.7	0.0	4.0	0.0	* 0.0	* 0.0	0.0	2.7	3.8	0.0
11	7.5	26.7	0.5	52.0	0.0	4.8	* 0.0	* 0.0	0.0	7.0	63.2	0.0
12	2.2	1.0	4.7	4.8	0.0	1.8	* 0.0	* 0.0	0.0	0.3	0.0	1.2
13	4.0	0.0	4.3	0.0	0.5	0.3	* 0.0	* 0.0	0.0	8.5	0.0	15.0
14	1.8	3.5	83.3	0.0	0.0	16.0	* 0.0	* 0.0	0.0	0.0	0.3	0.6
15	8.0	39.3	8.0	2.6	0.0	33.0	* 0.0	* 0.0	0.0	0.0	0.0	0.4
16	0.3	1.2	6.4	1.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	2.5	0.0
17	0.0	25.2	0.0	0.0	0.0	1.4	* 0.0	* 0.0	0.0	0.0	0.0	1.2
18	5.4	29.2	6.8	3.1	0.0	0.0	* 0.0	* 0.0	0.0	0.0	2.8	0.0
19	9.5	17.8	0.5	0.8	0.0	0.0	* 0.0	* 0.0	0.6	0.0	0.4	0.8
20	7.3	14.6	2.5	1.5	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	5.5
21	9.3	8.5	2.4	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
22	33.2	1.0	3.0	12.5	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
23	12.4	13.4	0.0	0.0	0.0	0.0	* 0.0	* 0.0	38.6	2.5	0.0	0.0
24	35.5	1.0	32.4	0.0	0.0	1.4	* 0.0	* 0.0	1.5	6.2	9.4	23.0
25	26.7	0.0	27.3	0.0	0.0	24.3	* 0.0	* 0.0	0.5	3.0	14.2	11.2
26	9.7	14.4	0.2	0.0	0.0	0.3	* 0.0	* 0.0	0.0	0.0	26.0	7.2
27	8.7	5.0	13.3	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	18.5	1.2
28	22.2	12.4	0.6	0.0	0.0	2.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	12.7
30	0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	4.6
31	0.0		2.0		0.0		* 0.0	* 0.0		0.0		38.8
Max.	36.5	78.7	83.3	52.0	47.5	33.0	* 0.0	* 0.0	38.6	16.4	192.0	38.8
Total	294.6	338.5	350.5	141.6	52.0	101.2	* 0.0	* 0.0	79.6	46.6	546.9	160.2
Annual :	* 2111.7		Max. :		* 192.0							

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1987 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.2	15.9	22.0	1.4	0.0	0.5	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
2	3.7	51.8	55.2	0.0	3.2	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	8.7
3	28.8	0.5	0.0	0.0	0.0	0.0	* 32.4	* 0.0	* 0.0	* 0.0	0.0	0.0
4	28.2	0.0	6.5	0.0	0.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	7.0	0.0	32.0	2.2	0.0	0.5	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
6	2.6	0.0	8.0	0.0	84.1	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
7	1.2	3.5	13.3	2.2	31.0	5.8	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
8	46.0	26.7	0.6	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.5	0.0
9	3.3	61.4	0.0	29.6	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
10	7.5	59.5	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	11.3	0.0
11	11.5	7.5	0.0	0.0	0.0	0.0	* 1.6	* 0.0	* 0.0	* 0.0	0.0	0.0
12	19.1	0.3	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
13	26.5	1.6	24.3	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.4	0.0
14	11.1	17.5	26.6	0.0	32.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
15	6.2	28.5	1.0	0.0	11.2	0.0	* 16.5	* 0.0	* 0.0	* 0.0	0.0	4.4
16	6.0	22.5	6.5	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
17	0.0	17.0	0.0	0.0	0.0	0.0	* 5.5	* 0.0	* 0.0	* 0.0	0.0	0.0
18	0.0	45.5	0.0	6.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	0.0	67.6	14.5	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
20	1.8	0.0	18.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	29.4	0.0
21	0.4	0.6	17.2	3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	35.3	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
24	28.5	6.5	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.6	0.0
25	8.8	26.9	2.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	11.8	23.5
26	76.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
27	15.0	1.1	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	23.5	0.0
28	0.8	0.0	2.5	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.3	0.0
29	25.5		0.0	61.6	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
30	0.6		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.0	4.4
31	13.0		0.0		0.0		* 0.0	* 0.0		* 0.0		48.0
Max.	76.0	67.6	55.2	61.6	84.1	5.8	* 32.4	* 0.0	* 0.0	* 0.0	35.3	48.0
Total	381.3	462.4	250.2	106.5	161.5	9.8	* 56.0	* 0.0	* 0.0	* 0.0	120.1	89.0

Annual : \* 1636.8      Max. : \* 84.1

Year : 1988 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	4.2	121.5	6.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.3
2	0.0	12.0	0.0	3.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5
3	0.0	91.7	7.5	0.0	2.5	0.0	0.0	0.8	0.0	0.0	0.0	0.0
4	0.0	14.8	66.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8	0.0	0.0	0.0	0.0
6	0.0	11.5	3.0	0.0	26.8	24.2	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.5	1.8	0.0	6.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0
8	0.5	17.8	33.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	6.0	11.5	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	39.0	42.7	0.0	0.0	7.8	14.8	0.0	0.0	0.0	0.0	0.0	0.0
11	3.1	28.8	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	36.2	0.0
12	32.0	8.8	0.0	0.0	14.7	0.0	0.0	0.0	0.0	0.0	37.0	0.0
13	2.3	6.7	4.5	0.0	0.2	0.0	0.0	0.0	0.0	3.3	32.7	0.0
14	3.0	58.9	0.0	0.0	7.5	4.5	0.0	0.0	0.0	22.3	64.2	0.0
15	19.3	0.5	0.0	0.0	1.8	0.0	0.0	0.0	0.0	19.5	0.0	0.0
16	0.0	1.5	0.8	39.0	1.2	0.0	0.0	0.0	0.0	3.8	25.5	84.4
17	3.0	1.0	7.0	0.0	0.0	2.7	0.0	0.0	0.0	3.5	0.0	1.1
18	5.0	0.0	14.7	4.4	0.0	0.7	0.0	0.0	0.0	0.0	0.0	2.8
19	3.5	0.0	1.2	17.0	0.0	0.0	0.0	0.0	0.0	1.7	0.6	81.2
20	17.5	0.0	3.7	1.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	8.0
21	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	24.0
22	0.5	0.4	1.6	0.0	114.5	0.0	0.0	0.0	0.0	0.0	96.3	3.3
23	17.2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
24	11.3	16.0	12.5	0.0	12.7	0.0	0.0	0.0	0.0	0.0	55.8	0.0
25	3.5	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	18.0	0.0
26	0.6	41.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	4.5	6.5
27	19.5	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.2
28	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5
29	7.1	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	22.5	2.8	4.2
30	1.6		26.6	2.0	0.0	0.0	0.0	0.0	0.0	28.8	0.0	9.0
31	8.9		0.0		0.0		0.0	0.0		0.2		0.0
Max.	39.0	91.7	121.5	39.0	114.5	24.2	0.0	25.8	0.0	28.8	96.3	84.4
Total	239.7	371.1	335.2	78.4	205.5	49.4	0.0	26.6	0.0	121.5	374.0	269.0

Annual : 2070      Max. : 121.5

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1989 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	5.0	1.3	4.6	0.0	5.0	0.0	* 0.0	0.0	0.0	1.0	0.0
2	4.0	11.0	0.0	15.3	0.0	0.0	0.0	* 0.0	0.0	7.0	0.0	0.0
3	4.7	2.3	1.8	3.7	0.0	3.5	0.0	* 1.4	0.0	0.0	51.5	0.0
4	29.0	1.0	1.8	1.8	0.0	35.7	0.0	* 0.0	0.0	0.0	1.5	0.0
5	66.6	17.8	8.5	0.5	1.0	3.3	0.0	* 0.0	0.0	0.0	22.3	0.0
6	6.8	9.3	0.5	1.2	0.0	2.5	0.0	* 0.0	0.0	0.0	0.0	0.0
7	9.7	4.4	0.0	8.2	11.1	0.0	0.0	* 0.0	0.0	0.0	1.8	3.0
8	0.0	0.4	2.6	0.0	1.2	0.0	0.0	* 0.0	0.0	0.0	0.0	1.2
9	0.9	6.2	2.0	0.0	2.0	0.0	0.0	* 0.0	0.0	0.0	28.0	1.3
10	11.0	1.8	6.3	12.7	1.0	41.0	0.0	* 0.0	0.0	1.2	0.0	3.0
11	5.0	21.0	13.2	0.0	2.5	0.0	1.5	* 0.0	0.0	0.0	0.0	0.0
12	6.5	27.7	0.0	0.5	0.0	41.0	0.0	* 0.0	0.0	0.0	0.5	0.0
13	4.0	24.0	0.0	0.0	0.7	1.0	0.0	* 0.0	0.0	0.0	0.0	0.4
14	0.4	0.0	0.6	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0	2.6	51.1
15	16.5	3.7	0.0	0.0	0.0	0.0	1.0	* 0.0	3.7	21.0	0.0	0.0
16	0.0	4.3	2.0	0.0	0.0	0.6	13.0	* 2.2	0.0	0.0	0.0	0.0
17	1.1	2.2	0.0	2.0	0.0	0.0	1.0	* 0.0	0.0	0.0	0.0	0.0
18	0.5	9.5	9.0	0.0	0.0	1.2	37.1	* 0.0	0.0	0.0	0.0	0.0
19	0.0	7.4	11.0	0.0	0.0	3.3	15.0	* 0.0	0.0	0.0	0.0	0.0
20	1.8	3.4	0.0	0.0	2.0	1.5	0.0	* 0.0	0.0	1.7	0.0	0.0
21	33.2	3.0	0.0	0.0	18.2	0.0	0.0	* 0.0	0.0	0.0	0.8	0.0
22	1.0	27.5	0.0	19.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	38.8
23	13.5	4.0	31.5	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
24	24.5	11.5	0.0	0.0	32.5	0.0	7.8	* 0.0	0.0	0.0	0.0	0.0
25	2.0	38.5	0.0	0.0	9.4	0.0	2.0	* 0.0	0.0	0.0	0.0	0.0
26	6.4	8.5	0.4	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	44.8
27	3.8	13.5	32.0	7.7	0.0	2.8	0.0	* 0.0	0.0	1.6	0.0	0.0
28	0.0	13.5	2.0	14.0	3.0	0.0	0.0	* 0.0	0.0	5.5	0.0	13.4
29	12.5		5.6	3.6	0.0	0.0	0.0	* 0.0	0.0	0.0	1.3	0.0
30	7.8		3.0	0.0	0.0	0.0	0.0	* 1.8	0.0	0.0	4.0	0.0
31	7.3		1.7		0.0			* 0.0		0.0		4.2
Max.	66.6	38.5	32.0	19.0	32.5	41.0	37.1	* 2.2	3.7	21.0	51.5	51.1
Total	280.5	282.4	136.8	94.8	84.6	142.4	78.4	* 5.4	3.7	41.0	115.3	161.2

Annual : \* 1426.5      Max. : \* 66.6

Year : 1990 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	22.2	2.0	0.0	29.1	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
2	0.0	0.0	44.8	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	21.8
3	0.0	0.0	3.0	0.0	0.0	1.0	27.5	1.8	* 0.0	0.0	0.0	5.7
4	5.3	0.0	1.5	15.6	12.0	0.0	21.1	0.0	* 0.0	0.0	0.0	0.0
5	23.5	0.0	3.6	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	29.0
6	5.0	1.5	25.3	3.0	0.0	0.0	9.2	0.0	* 0.0	0.0	0.0	1.2
7	0.0	2.8	8.0	6.7	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.8
8	7.6	0.0	4.7	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	6.8
9	2.0	6.5	27.8	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
10	3.2	0.0	13.5	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
11	0.0	0.0	9.3	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.5
12	59.2	0.0	0.4	0.0	29.2	0.0	0.0	0.0	* 0.0	0.0	1.5	17.5
13	5.2	0.0	0.0	18.6	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	34.7
14	29.0	1.0	9.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	3.8
15	11.2	24.5	1.4	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
16	13.0	0.0	3.2	1.5	1.3	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
17	9.5	1.0	0.0	3.5	0.0	0.0	0.0	0.0	* 0.0	0.0	2.8	8.5
18	6.1	27.4	1.5	2.4	0.0	0.0	8.3	0.0	* 0.0	0.0	25.5	45.5
19	26.0	3.5	0.0	6.0	0.0	0.0	0.0	0.0	* 0.0	0.0	12.2	3.1
20	0.0	2.5	0.0	0.0	0.0	0.0	3.7	0.0	* 0.0	0.0	0.0	4.0
21	15.8	0.0	0.0	0.0	0.0	2.8	0.0	0.0	* 0.0	0.0	0.0	42.3
22	17.6	6.0	0.0	1.3	6.5	0.0	0.0	7.3	* 0.8	0.0	0.0	0.0
23	55.5	7.0	0.0	0.0	2.4	0.0	0.0	2.8	* 0.0	5.5	0.0	1.4
24	21.7	7.0	0.0	0.0	0.0	1.0	0.0	30.3	* 0.0	0.0	0.0	2.0
25	26.5	51.2	0.5	4.0	9.0	0.0	0.0	0.0	* 0.0	0.0	1.0	7.0
26	1.6	33.5	0.0	1.0	42.8	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
27	0.0	1.5	9.8	3.8	0.0	1.4	0.0	0.0	* 0.0	0.0	0.0	16.3
28	0.0	26.8	13.3	22.0	0.0	0.0	0.0	0.0	* 0.0	17.5	2.0	2.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	17.0	17.2	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	7.3	14.0
31	0.0		0.0		0.0			0.0		0.0		3.5
Max.	59.2	51.2	44.8	29.1	42.8	2.8	27.5	30.3	* 0.8	17.5	25.5	45.5
Total	366.7	205.7	180.6	118.5	103.2	6.2	69.8	42.2	* 0.8	40.0	69.5	277.4

Annual : \* 1480.6      Max. : \* 59.2

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1991 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	33.8	18.3	34.0	18.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	7.9	39.0	0.0	1.5	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	13.5	0.0	3.6	24.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	5.1	38.3	0.0	1.4	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	2.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	34.9
6	68.2	6.0	0.0	24.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
7	12.5	9.3	26.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.1
8	1.5	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
9	7.2	3.0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	0.0	1.8	49.7
10	23.3	73.8	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	4.2	8.0	0.0	22.6	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
12	4.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	17.0	2.8	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	15.5	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	1.2	0.5	55.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	0.0
17	25.0	27.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	2.4	52.0	3.0	34.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0
19	6.2	44.8	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	13.4	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	25.3
21	0.0	12.8	1.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
22	14.4	1.0	3.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.7
23	47.2	36.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	7.0	38.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4
26	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.6
27	0.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
29	16.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
30	0.8		14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
31	2.1		28.3		0.0		0.0	0.0				9.6
<b>Max.</b>	68.2	73.8	55.8	34.0	24.8	0.0	0.0	0.0	0.0	7.1	28.3	61.1
<b>Total</b>	337.0	495.4	176.4	115.2	56.0	0.0	0.0	0.0	0.0	7.1	60.4	239.9
<b>Annual :</b>	1487		<b>Max. :</b>		73.8							

Year : 1992 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.2	3.5	0.0	7.5	21.5	14.0	0.0	0.0	14.5	0.5	0.0	21.0
2	0.0	15.0	24.5	3.7	0.0	0.0	0.0	0.0	0.0	2.0	0.0	76.0
3	0.0	4.0	0.0	14.0	0.5	2.1	3.0	0.0	0.0	1.0	0.5	1.5
4	0.0	4.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
5	0.0	2.0	31.5	76.2	0.0	11.5	0.0	0.0	9.0	0.0	0.0	4.0
6	0.0	57.5	9.5	0.5	0.0	0.0	0.0	0.0	2.5	3.2	0.0	0.0
7	6.0	3.0	6.5	24.8	28.8	5.7	0.0	0.0	17.7	0.0	0.0	0.0
8	6.1	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	6.0	0.0
9	38.0	5.0	5.5	12.3	0.0	0.0	0.0	0.0	0.0	21.5	0.5	0.0
10	95.8	0.0	53.2	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	1.5
11	0.4	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
12	46.3	1.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
13	7.1	83.3	1.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
14	2.5	0.5	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
15	0.0	9.6	36.5	12.4	0.0	0.0	0.0	0.0	0.0	0.0	1.0	53.0
16	2.6	43.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	1.0	51.0	0.0
17	0.0	4.5	4.2	4.5	0.0	0.0	0.0	0.0	0.0	4.2	4.0	0.0
18	0.0	33.0	14.8	0.0	0.0	0.0	0.0	0.0	0.0	15.8	0.0	0.0
19	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.5	35.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	87.5	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	28.0	0.0
23	4.6	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	9.8	4.0	0.0
24	1.8	0.0	16.5	0.0	1.0	0.0	0.0	32.0	5.0	0.0	9.0	0.0
25	0.0	0.0	0.0	0.0	1.0	0.0	0.0	25.0	0.0	57.0	0.5	0.0
26	31.2	0.0	1.8	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	4.0	2.5	0.0	0.0	0.0	0.0	5.5	0.0	0.0	15.0	0.0
28	4.0	0.0	8.5	4.2	0.0	0.0	0.0	29.5	0.0	3.5	1.5	9.5
29	1.8	0.0	0.0	0.0	1.8	0.0	0.0	18.7	0.0	35.5	9.0	0.0
30	1.0		0.0	0.0	0.0	0.0	0.0	35.0	0.0	0.0	3.0	0.0
31	0.8		2.5		13.5		0.0	3.0		25.5		5.0
<b>Max.</b>	95.8	87.5	53.2	76.2	28.8	14.0	3.0	35.0	17.7	57.0	51.0	76.0
<b>Total</b>	255.7	418.2	244.1	182.9	68.1	33.3	3.0	148.7	49.7	240.5	146.0	184.0
<b>Annual :</b>	1974		<b>Max. :</b>		95.8							

" \* " : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1993 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 8.0	4.0	0.0	7.4	5.5	0.0	0.0	28.5	0.0	* 0.0	0.0	74.0
2	* 1.0	9.5	0.5	29.0	12.5	0.0	0.0	0.0	0.0	* 0.0	0.0	2.0
3	* 1.5	24.0	2.0	22.2	1.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.5
4	* 7.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
5	* 99.9	8.4	0.0	53.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	2.5
6	* 1.0	51.0	4.3	11.2	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	6.5
7	* 0.0	0.0	0.0	32.8	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
8	* 3.5	12.7	0.0	14.0	5.5	0.0	0.0	0.0	0.0	* 0.0	0.0	25.0
9	* 11.5	1.0	16.0	0.0	0.0	0.0	0.0	1.5	0.0	* 0.0	0.0	1.5
10	* 0.0	0.0	62.5	0.0	0.0	0.0	0.0	1.5	0.0	* 0.0	0.0	0.0
11	* 0.0	0.0	38.0	0.0	0.0	32.0	0.0	0.0	0.0	* 0.0	0.0	29.8
12	* 8.5	0.0	36.5	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	38.5	1.0
13	* 0.0	0.0	0.0	1.0	0.0	7.5	0.0	0.0	0.0	* 0.0	3.8	7.0
14	* 0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	* 0.0	4.5	0.0
15	* 3.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	* 0.0	27.5	0.0
16	* 0.0	4.3	0.0	13.3	0.0	0.4	0.0	0.0	0.0	* 0.0	0.0	0.0
17	* 4.5	65.5	22.0	0.0	0.0	1.5	0.0	0.0	0.0	* 0.0	0.0	0.0
18	* 24.5	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	* 0.0	0.0	0.0
19	* 2.0	15.5	0.0	14.0	12.5	0.0	0.0	0.0	0.0	* 0.0	7.0	38.5
20	* 0.0	0.0	4.0	3.0	3.5	0.0	0.0	0.0	0.0	* 0.0	3.0	0.4
21	* 52.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	31.2
22	* 146.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	8.0	25.0
23	* 2.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	16.3	0.5
24	* 18.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	8.0
25	* 16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	1.0	3.0
26	* 0.0	1.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
27	* 0.0	3.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
28	* 64.0	0.0	8.0	0.0	3.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
29	* 0.0		0.5	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	17.0	0.0
30	* 0.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	4.5	0.0
31	* 11.5		1.0		0.0		0.0	0.0		* 0.0		0.0
Max.	* 146.0	65.5	62.5	53.0	12.5	32.0	0.0	28.5	0.0	* 0.0	38.5	74.0
Total	* 485.9	240.9	247.8	201.7	43.5	48.4	0.0	31.5	0.0	* 0.0	131.1	256.4

Annual : \* 1687.2      Max. : \* 146.0

Year : 1994 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	1.5	2.0	25.5	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0	0.0
2	0.0	0.0	25.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.2	0.0
3	1.5	21.0	61.0	17.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
4	6.0	5.7	23.0	0.5	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	24.3	0.3
5	0.0	1.0	4.7	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	18.0	15.6
6	49.0	0.5	39.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
7	0.0	13.0	15.5	0.0	0.0	* 1.1	* 0.0	* 0.0	* 0.0	0.0	0.0	0.6
8	46.0	4.3	19.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
9	63.5	3.0	15.4	7.5	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	9.2
10	1.2	21.5	5.5	0.0	2.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	15.0
11	2.8	9.0	23.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
12	0.0	5.0	3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	9.0
13	29.0	83.5	6.0	19.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.5	1.8
14	3.0	0.0	0.0	15.5	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	25.0
15	72.0	3.0	1.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	8.8
16	24.5	14.5	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.3	0.0
17	0.5	1.0	3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.3	0.0
18	7.3	17.0	67.3	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	5.0	0.0
19	32.0	0.0	41.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0	0.0
20	39.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	71.0	0.0
21	18.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
22	9.3	7.2	5.6	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
23	1.0	17.5	13.8	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
24	2.8	4.0	8.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.2	0.0
25	0.0	17.5	4.5	2.3	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.8	1.4	0.0
26	18.8	33.5	1.8	2.5	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
27	9.3	6.4	1.0	24.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.8	0.0
28	0.5	47.5	4.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	21.5	15.0
29	3.0		0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	28.6	18.0
30	0.5		0.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	17.0	0.0
31	2.5		0.0		0.0		* 0.0	* 0.0		0.0		15.2
Max.	72.0	83.5	67.3	25.5	2.0	* 1.1	* 0.0	* 0.0	* 0.0	7.0	71.0	25.0
Total	443.0	338.1	397.1	113.8	2.0	* 1.1	* 0.0	* 0.0	* 0.0	8.8	201.1	133.5

Annual : \* 1638.5      Max. : \* 83.5

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1995 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.8	66.0	29.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
2	1.7	11.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	7.0
3	18.0	2.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
4	7.4	3.3	7.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
5	43.6	4.0	0.0	14.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	3.0
6	5.6	11.6	4.0	1.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	13.3
7	2.8	1.6	6.0	1.4	0.0	6.2	0.0	0.0	0.0	0.0	4.8	8.4
8	0.0	0.0	4.0	4.0	0.0	4.8	29.0	0.0	0.0	0.0	0.0	3.4
9	1.0	15.2	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	7.6
10	6.8	21.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	11.6
11	2.8	37.6	0.0	0.0	4.2	0.0	1.8	0.0	0.0	0.0	0.0	2.0
12	2.0	18.8	28.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	14.2
13	4.6	44.2	24.6	0.0	0.0	0.0	1.6	0.0	0.0	0.0	37.0	0.0
14	1.2	3.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	9.0	9.0	1.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	4.4
16	7.8	3.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0
17	7.4	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	7.0	0.0
18	19.8	2.0	13.0	12.8	0.0	2.0	0.0	0.0	0.0	8.8	6.0	0.0
19	86.4	62.0	4.8	1.2	0.0	26.8	2.8	0.0	0.0	0.0	0.0	0.0
20	34.6	47.0	0.6	0.0	0.0	37.4	4.0	0.0	0.0	26.2	116.0	3.8
21	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	4.8
22	0.0	47.2	23.0	0.0	3.6	1.0	0.0	0.0	0.0	8.0	9.8	4.0
23	2.0	0.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	5.6
24	64.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	14.0	8.2
25	2.4	23.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.0	0.0
26	0.0	23.0	2.6	0.0	0.0	17.4	0.0	0.0	0.0	6.6	46.6	0.8
27	21.0	85.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8	0.0
28	0.0	9.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	0.0
29	0.8		1.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0
31	6.2		23.0				0.0	0.0			4.8	0.0
Max.	86.4	85.4	29.0	26.5	4.2	37.4	29.0	0.0	0.0	26.2	116.0	14.2
Total	375.5	542.3	191.7	78.5	11.0	101.6	39.2	0.0	0.0	76.3	384.6	118.6
Annual :	1919		Max. : 116.0									

Year : 1996 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	12.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	3.8
2	2.0	12.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	87.0	0.0	2.4
3	8.8	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.6
5	11.4	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	9.6
6	0.8	24.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
7	0.0	11.3	57.6	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
8	15.2	27.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0
9	0.0	1.0	7.4	4.4	0.0	0.0	0.0	51.0	0.0	0.0	9.4	4.4
10	0.0	1.4	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
11	27.4	44.4	2.7	2.6	0.0	0.0	0.0	3.6	0.0	0.0	3.6	8.0
12	1.8	18.0	62.0	0.0	0.0	26.4	0.0	0.0	0.0	0.0	0.0	91.2
13	7.0	0.0	1.8	7.4	0.0	0.0	0.0	0.0	0.0	13.2	2.6	26.2
14	0.0	2.2	6.4	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	4.0
15	3.0	1.2	29.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6	0.0
16	2.4	0.0	0.2	27.6	18.6	2.6	0.0	0.0	0.0	11.8	55.0	1.6
17	15.4	6.2	1.4	8.6	0.0	0.0	0.0	0.0	0.0	0.0	57.0	1.2
18	6.6	1.8	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	13.0	2.0
19	63.4	7.4	0.0	36.6	2.4	0.0	0.0	0.0	0.0	48.0	2.4	0.0
20	17.8	18.2	4.3	0.0	0.0	0.0	0.0	0.0	0.0	6.6	3.8	0.6
21	46.6	0.0	0.6	14.8	0.0	0.0	0.0	0.0	0.0	6.0	0.0	1.0
22	0.0	4.6	79.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	8.8	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	16.0	18.2	0.0
24	0.0	4.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0
25	17.0	11.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	5.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	0.6	31.2
27	0.0	4.3	0.0	0.0	0.6	1.8	0.0	12.0	0.0	9.0	0.0	0.0
28	54.0	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
29	0.0	24.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.8	0.0	5.6
30	0.8		0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.8	0.0
31	0.0		0.0		0.0		0.0	0.0		1.6		18.6
Max.	63.4	44.4	79.4	36.6	18.6	26.4	0.0	51.0	0.0	87.0	57.0	91.2
Total	328.4	267.4	294.4	127.6	26.4	37.2	0.0	66.6	0.0	246.4	185.0	288.0
Annual :	1867		Max. : 91.2									

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1997 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.6	9.8	1.4	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	7.0
2	0.0	1.5	8.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
3	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
4	2.2	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
5	1.2	5.4	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	13.4	2.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	22.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
8	24.0	16.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
9	1.6	1.8	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	17.0	0.0
10	6.0	0.0	24.0	77.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
11	0.0	12.0	0.7	85.5	8.2	0.0	0.0	0.0	0.0	0.0	0.0	35.0
12	0.0	31.0	0.0	0.8	0.0	0.4	0.0	0.0	0.0	0.0	3.5	37.0
13	88.6	8.6	0.0	43.2	0.0	0.0	0.0	0.0	0.0	0.0	2.3	35.0
14	36.2	19.4	0.0	29.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.5
15	2.8	0.0	0.0	27.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
16	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	3.2	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	13.8	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
19	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	8.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.0
22	7.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
23	22.0	4.8	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	77.0
24	1.8	51.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
25	9.4	15.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
26	0.0	3.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	3.5	0.0
27	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.5
28	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	4.5
29	0.0		0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	88.6	51.5	24.0	85.5	8.2	0.4	0.0	0.0	0.0	0.0	27.0	77.0
<b>Total</b>	245.8	233.6	68.9	304.4	16.3	0.4	0.0	0.0	0.0	0.0	71.8	259.9
<b>Annual :</b>	1201											
<b>Max. :</b>				88.6								

Year : 1998 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	2.0	11.5	1.0	5.0	17.5	0.0	0.0	2.5	1.0	0.5
2	0.0	25.0	37.5	2.0	1.0	0.0	0.0	0.0	0.0	0.0	1.5	2.7
3	0.0	17.0	1.0	1.0	0.0	27.0	0.0	0.0	0.0	0.0	2.5	16.0
4	0.0	0.0	56.5	0.0	3.0	5.5	0.0	0.0	0.0	0.0	19.0	1.0
5	0.0	28.5	0.0	0.0	0.0	18.0	3.0	0.0	0.0	1.0	6.5	0.0
6	1.5	3.5	0.0	18.0	0.0	0.0	3.5	12.0	0.0	39.5	6.5	0.0
7	11.0	0.5	5.5	2.0	0.0	0.0	15.0	0.0	0.0	0.0	2.0	0.0
8	5.3	4.0	22.0	2.5	0.0	0.0	22.5	0.0	0.0	0.0	8.0	0.0
9	3.0	0.0	22.5	2.0	0.0	0.0	0.0	0.0	0.0	1.3	1.5	0.0
10	0.0	0.0	5.5	21.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
11	0.0	0.0	15.0	33.5	0.0	0.0	6.5	0.0	0.0	1.0	0.0	1.0
12	0.0	2.3	13.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	2.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0
14	35.5	4.5	4.5	2.0	0.0	46.5	0.5	0.0	0.0	0.0	7.5	0.0
15	0.0	27.0	23.0	1.0	0.0	23.0	0.0	0.0	0.0	0.0	1.0	2.5
16	0.0	0.0	3.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	5.5
17	16.0	12.5	1.0	0.0	1.0	17.0	0.0	0.0	0.0	36.5	5.0	51.0
18	0.0	2.2	2.5	3.5	0.0	24.3	2.0	0.0	0.0	11.0	0.0	0.0
19	1.5	9.5	61.5	0.0	0.0	0.0	1.5	0.0	0.0	17.0	0.0	0.5
20	7.0	13.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5
21	19.0	19.0	0.0	2.0	0.0	25.5	0.0	0.0	0.0	1.5	0.0	2.0
22	0.0	0.0	46.3	4.9	0.0	2.3	0.5	0.0	0.0	0.0	0.0	88.5
23	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0	0.0
24	0.0	7.0	15.0	0.0	0.0	7.0	0.5	5.5	0.0	0.0	0.0	0.0
25	9.0	0.0	46.0	11.3	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.0
26	1.0	9.5	3.8	28.0	12.5	1.0	2.5	0.0	26.0	1.0	0.0	0.9
27	5.5	0.5	13.5	6.5	0.0	0.0	48.0	0.0	3.3	0.0	0.0	0.8
28	4.5	38.0	1.0	11.5	0.0	0.0	23.0	0.0	1.0	32.0	5.0	3.0
29	0.0		0.0	6.0	0.0	13.5	0.5	0.0	1.3	15.5	1.0	55.0
30	5.0		0.0	12.5	0.0	0.0	0.5	0.0	0.0	3.5	2.5	11.0
31	47.0		11.0		0.0		0.0	0.0		22.5		11.0
<b>Max.</b>	47.0	38.0	61.5	33.5	12.5	46.5	48.0	12.0	26.0	39.5	27.5	88.5
<b>Total</b>	171.8	224.0	418.6	202.2	18.5	215.6	157.0	17.5	31.6	217.3	100.0	277.4
<b>Annual :</b>	2052											
<b>Max. :</b>				88.5								

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 1999 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.6	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
2	18.0	1.5	0.0	3.5	3.5	0.0	0.0	0.0	0.0	0.0	4.5	0.5
3	9.5	1.0	0.5	2.5	0.0	1.0	0.0	0.0	0.0	0.0	39.5	35.0
4	0.0	3.0	0.0	13.5	0.0	6.0	0.0	0.0	0.0	0.0	1.0	5.0
5	0.0	13.5	5.5	0.0	5.0	0.0	0.0	0.0	0.0	3.5	1.5	0.0
6	4.2	4.0	33.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	15.2	0.0	36.5	0.5	65.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	79.0	2.5	43.5	0.0	24.5	0.0	0.0	0.0	0.0	0.0	1.0	3.5
9	26.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
10	49.5	0.0	18.5	0.0	13.0	0.0	0.0	0.0	0.0	3.5	0.0	72.0
11	47.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
12	0.8	0.0	32.5	28.0	13.0	0.0	0.0	0.0	0.0	8.5	0.0	41.5
13	1.0	74.0	37.0	14.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	38.5
14	47.5	2.5	0.5	51.5	0.0	0.0	0.0	0.0	0.0	21.0	5.0	2.0
15	2.0	2.5	18.5	1.0	1.5	0.0	0.0	0.0	0.0	5.0	25.0	0.0
16	3.0	0.6	1.0	45.0	0.0	0.0	0.0	0.0	0.0	9.5	4.0	0.0
17	0.0	3.0	52.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	2.0	0.0	38.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	2.5
19	16.0	2.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	33.3	0.0	0.0	0.0	0.5	0.0	0.0	0.0	38.5	34.0	2.0
21	1.0	17.5	6.5	0.0	0.0	3.0	0.0	0.0	0.0	0.0	1.0	3.0
22	0.5	14.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	1.0	26.0	3.5
23	19.0	26.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.3	36.5
24	2.2	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	13.0	3.8
25	2.5	2.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
26	0.0	9.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
27	4.5	9.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	6.0	0.0	7.5
28	34.5	8.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	2.0
29	6.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
30	4.5		0.5	8.5	0.0	0.0	0.0	0.0	0.0	17.5	0.0	13.0
31	13.0		0.0		0.0		0.0	0.0		1.0		7.0
<b>Max.</b>	79.0	74.0	52.5	51.5	65.5	18.0	0.0	0.0	0.0	38.5	39.5	72.0
<b>Total</b>	412.0	253.9	354.6	173.5	126.0	29.0	0.0	0.0	0.0	119.0	197.8	289.8
<b>Annual :</b>	1956		<b>Max. :</b>		79.0							

Year : 2000 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	13.0	0.0	13.0	6.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
2	0.0	27.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
3	0.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	60.0	58.0	21.0	58.0	33.0	0.0	0.0	0.0	0.0	6.0	0.0
5	11.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	6.0	0.0	71.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	16.0	18.0	0.0	23.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	21.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	6.0	55.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
10	85.0	28.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	22.0	0.0	0.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
12	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	35.0	8.0
13	0.0	14.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.0
14	4.0	0.0	27.0	24.0	0.0	0.0	0.0	0.0	0.0	27.0	38.0	49.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	13.0	0.0
16	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	7.0	5.0	13.0
17	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	8.0	26.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0	4.0
19	0.0	0.0	18.0	12.0	0.0	0.0	0.0	0.0	0.0	28.0	19.0	0.0
20	0.0	0.0	25.0	0.0	72.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	41.0	30.0	39.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0
22	5.0	0.0	22.0	0.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	35.0	35.0	10.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	0.0
24	0.0	0.0	25.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	42.0	14.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0
27	0.0	22.0	0.0	0.0	0.0	0.0	0.0	19.0	26.0	14.0	0.0	0.0
28	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0
29	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0	16.0
31	31.0		0.0		7.0		0.0	0.0		0.0		0.0
<b>Max.</b>	85.0	60.0	71.0	47.0	72.0	33.0	0.0	19.0	26.0	44.0	38.0	63.0
<b>Total</b>	278.0	346.0	499.0	293.0	242.0	63.0	0.0	19.0	26.0	205.0	177.0	214.0
<b>Annual :</b>	2362		<b>Max. :</b>		85.0							

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 2001 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.5	2.0	28.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	6.0	8.0
2	6.0	32.5	23.0	1.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
3	1.0	21.0	1.5	42.5	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	5.0	6.0	16.0	7.5	0.5	8.0	0.0	0.0	0.0	8.0	20.0	0.0
5	30.0	13.5	5.0	15.0	0.0	0.0	0.0	0.0	0.0	1.0	11.0	8.0
6	12.5	6.0	32.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
7	4.0	7.0	0.0	4.8	0.0	1.5	0.0	0.0	0.0	25.0	0.0	7.0
8	0.8	0.0	0.0	0.5	2.5	1.0	0.0	0.0	0.0	7.5	0.0	0.0
9	7.5	28.0	0.0	58.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
10	70.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	30.0	0.0	35.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	8.5	7.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
13	0.0	5.2	0.5	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.8	7.5	0.0	3.5	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
15	7.3	0.5	0.0	22.5	0.0	20.5	0.5	0.0	0.0	7.0	18.5	0.0
16	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	13.5	8.0
17	7.8	32.5	10.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	53.0	0.0
18	6.0	5.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	12.5	12.0	7.0
19	4.5	10.0	48.0	0.0	35.5	2.5	1.5	0.0	0.0	5.0	16.5	0.0
20	4.0	0.0	1.0	0.0	0.0	0.0	16.0	0.0	0.0	2.5	13.0	0.0
21	47.5	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	17.5	1.5	0.0
22	3.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.5	0.0
23	15.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
24	0.0	0.0	69.0	41.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
25	7.0	0.0	12.3	8.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
26	1.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	2.5	0.0	3.5	0.0	1.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0
28	21.0	6.0	44.5	0.0	2.2	0.0	0.0	0.0	0.0	20.0	0.0	0.0
29	31.0		18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	1.5		6.5	0.0	0.0	0.0	0.0	0.0	0.0	12.0	9.0	0.0
31	5.0		16.5		2.8		0.0	0.0		0.0		0.0
<b>Max.</b>	70.0	32.5	69.0	58.0	85.0	20.5	16.0	0.0	0.0	30.5	53.0	30.0
<b>Total</b>	339.2	182.7	406.1	240.8	164.5	44.0	19.0	0.0	0.0	178.4	178.0	68.0
<b>Annual :</b>		1821		<b>Max. :</b>	85.0							

Year : 2002 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	19.5	0.0
2	18.5	0.0	0.0	16.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	12.5	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	72.0	6.5	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	1.5	23.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	14.5	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0
7	0.0	8.5	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
8	0.0	31.0	5.5	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	1.0
9	3.0	59.5	0.5	39.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
10	0.0	76.0	5.5	23.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0	26.0
11	0.0	0.5	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
12	0.0	0.5	2.5	5.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	29.5	34.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5
14	24.5	50.0	1.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0
15	30.0	0.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
16	0.5	3.5	21.5	12.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	1.5
17	14.5	41.5	0.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0
18	46.5	4.5	3.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
19	8.5	5.0	1.5	17.5	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0
20	2.5	5.5	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
21	63.5	4.0	0.0	47.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.5
22	17.0	42.5	24.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
23	31.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
25	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
26	27.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5
27	0.0	16.0	37.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
28	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
29	151.0		2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
30	1.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.5
31	1.5		11.5		0.0		0.0	0.0		0.0		51.5
<b>Max.</b>	151.0	76.0	37.5	47.5	7.5	0.0	0.0	9.0	0.0	0.0	36.0	51.5
<b>Total</b>	566.5	443.8	184.5	199.5	10.0	0.0	0.0	16.0	0.0	0.0	82.0	284.0
<b>Annual :</b>		1786		<b>Max. :</b>	151.0							

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT WONOGIRI DAM**

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 2003 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	16.0	8.5	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0	3.0	16.5
2	13.0	10.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	46.0
3	15.0	2.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.0
4	0.0	3.5	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
5	99.0	0.5	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
6	6.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
7	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
8	0.0	8.0	76.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	23.0
9	0.0	10.0	0.5	2.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	87.5
10	0.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
11	0.0	3.0	0.0	1.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	8.0	57.5	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
14	0.0	1.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	28.5	11.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0
17	0.0	22.5	13.5	0.0	0.0	0.0	0.0	0.0	3.5	0.0	7.0	2.5
18	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	6.0
19	0.0	32.0	54.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	41.0
20	0.0	24.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	22.0
21	13.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.5
22	11.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	22.0
23	36.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	9.0
24	0.0	34.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	4.0
25	0.0	5.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	14.5	2.0
26	23.0	46.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
27	21.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
28	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	13.0	21.5
30	10.0		5.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	2.0
31	0.0		0.0		0.0		0.0	0.0		4.6		0.0
Max.	99.0	57.5	76.5	28.0	18.0	0.0	0.0	0.0	3.5	16.5	17.0	87.5
Total	271.0	449.0	281.5	36.5	28.0	0.0	0.0	0.0	3.5	34.6	109.0	345.0
Annual :		1558		Max. :	99.0							

Year : 2004 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	2.5	0.0	15.0	0.0	0.0	2.0	0.0	0.0	0.0	0.5	39.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
3	0.0	29.5	21.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	5.5	1.5	42.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	7.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	14.0	24.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0
7	2.5	1.5	11.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
8	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.5	0.0
9	10.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0
11	0.0	0.0	93.5	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	10.0
12	0.0	31.0	5.5	0.0	0.0	0.0	55.5	0.0	0.0	0.0	0.0	0.0
13	0.0	1.5	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	6.0
15	0.5	34.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	10.0
16	15.5	0.0	28.0	1.0	0.0	0.5	0.0	0.0	0.0	0.0	1.0	1.0
17	2.5	1.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
18	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	2.0
19	0.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
20	22.0	96.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	40.0
21	0.5	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	1.5
22	0.5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	5.5	9.5
23	32.0	9.0	1.5	11.5	7.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5
24	42.0	3.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	12.5	113.5
25	16.5	64.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5	2.5
26	85.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	30.0
27	21.5	11.5	0.0	15.5	0.0	0.0	0.0	0.0	0.0	0.0	6.0	1.0
28	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	5.5	6.0
29	7.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0
30	1.5		0.5	0.0	0.0	0.0	0.0	0.0	0.0	7.5	7.0	0.5
31	9.0		2.0		0.0		0.0	0.0		0.0		0.0
Max.	85.0	96.0	93.5	15.5	8.5	16.0	55.5	0.0	6.0	7.5	40.0	113.5
Total	309.3	324.5	338.5	63.5	19.0	16.5	57.5	0.0	7.0	7.5	179.5	309.0
Annual :		1632		Max. :	113.5							

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT WONOGIRI DAM

Station No. : 22  
 Basin : Upper Solo  
 Elevation : 141 m

Year : 2005 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
2	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
3	0.0	0.0	4.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0
4	0.0	0.0	1.5	7.0	3.0	0.0	0.0	0.0	0.0	0.0	0.5	18.5
5	48.5	0.0	44.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	17.5	2.0	0.0	0.5	20.5	0.0	0.0	0.0	0.0	0.0
7	8.5	25.5	24.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
8	0.0	82.5	0.0	12.5	0.0	0.0	0.0	0.0	15.0	0.0	0.0	15.0
9	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0	0.0	28.0
11	0.0	10.0	0.5	0.5	0.0	0.0	11.5	0.0	5.5	0.5	0.0	3.5
12	27.0	1.0	87.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	3.0
13	0.0	10.0	0.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
14	0.0	3.5	9.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
15	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5
16	6.5	0.0	0.0	11.5	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0
17	20.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.5	0.0	27.5
18	41.0	0.0	0.0	11.5	0.0	0.0	0.0	0.0	12.0	0.0	6.5	16.0
19	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	15.0	1.5
20	1.0	0.0	0.0	16.0	0.0	19.0	0.0	0.0	0.0	0.0	0.5	30.0
21	54.0	1.5	1.5	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	13.0
22	9.0	5.5	0.0	0.0	1.0	6.0	0.0	0.0	0.0	0.0	0.0	17.0
23	14.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0	2.0
24	5.0	20.5	0.0	0.5	1.5	0.0	0.0	0.0	0.0	1.5	5.5	11.0
25	2.5	0.5	2.5	0.0	0.0	6.0	0.0	0.0	0.0	0.5	10.0	0.0
26	0.0	1.0	10.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0
27	0.0	0.5	57.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	28.0
28	2.5	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0
29	7.0		16.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	32.5
30	2.5		57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	3.0
31	0.5		0.0		0.0		0.0	0.0		0.0		24.0
<b>Max.</b>	54.0	82.5	87.0	16.0	3.0	19.0	20.5	0.0	19.0	19.0	15.0	60.0
<b>Total</b>	259.5	174.5	345.0	91.0	5.5	34.0	33.0	0.0	54.5	23.0	49.0	402.5

Annual : 1472                      Max. : 87.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1975 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	*0.0	*15.0	*0.0	*39.0	*0.0	*0.0	*0.0	*0.0	*4.0	*13.0	*6.0	*60.0
2	*0.0	*3.0	*46.0	*47.0	*0.0	*0.0	*0.0	*0.0	*27.0	*51.0	*0.0	*14.0
3	*0.0	*5.0	*36.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*4.0	*0.0	*0.0
4	*46.0	*3.0	*17.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*39.0	*25.0	*28.0
5	*0.0	*29.0	*44.0	*0.0	*30.0	*0.0	*0.0	*0.0	*0.0	*1.0	*2.0	*5.0
6	*7.0	*2.0	*70.0	*0.0	*42.0	*0.0	*0.0	*0.0	*0.0	*5.0	*35.0	*10.0
7	*27.0	*49.0	*47.0	*0.0	*19.0	*0.0	*0.0	*0.0	*0.0	*16.0	*26.0	*19.0
8	*7.0	*12.0	*25.0	*20.0	*3.0	*0.0	*0.0	*0.0	*0.0	*5.0	*16.0	*3.0
9	*10.0	*54.0	*10.0	*12.0	*26.0	*0.0	*0.0	*0.0	*5.0	*55.0	*0.0	*47.0
10	*0.0	*16.0	*18.0	*0.0	*14.0	*0.0	*0.0	*0.0	*8.0	*3.0	*10.0	*3.0
11	*5.0	*13.0	*73.0	*30.0	*10.0	*0.0	*0.0	*0.0	*22.0	*0.0	*1.0	*0.0
12	*9.0	*7.0	*57.0	*82.0	*0.0	*0.0	*0.0	*0.0	*140.0	*0.0	*0.0	*5.0
13	*29.0	*12.0	*22.0	*0.0	*47.0	*0.0	*0.0	*0.0	*3.0	*14.0	*14.0	*5.0
14	*9.0	*46.0	*10.0	*0.0	*18.0	*0.0	*14.0	*0.0	*30.0	*7.0	*64.0	*54.0
15	*36.0	*3.0	*18.0	*11.0	*8.0	*0.0	*0.0	*0.0	*5.0	*0.0	*24.0	*33.0
16	*5.0	*47.0	*30.0	*0.0	*29.0	*0.0	*1.0	*0.0	*20.0	*0.0	*5.0	*11.0
17	*14.0	*19.0	*50.0	*7.0	*11.0	*0.0	*0.0	*6.0	*15.0	*0.0	*28.0	*4.0
18	*59.0	*56.0	*0.0	*62.0	*68.0	*0.0	*0.0	*0.0	*0.0	*0.0	*10.0	*4.0
19	*3.0	*16.0	*4.0	*20.0	*0.0	*0.0	*0.0	*32.0	*0.0	*0.0	*35.0	*2.0
20	*25.0	*0.0	*0.0	*22.0	*0.0	*4.0	*0.0	*0.0	*2.0	*0.0	*11.0	*1.0
21	*16.0	*3.0	*53.0	*14.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
22	*20.0	*15.0	*17.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*7.0	*0.0	*0.0
23	*11.0	*16.0	*12.0	*9.0	*0.0	*0.0	*0.0	*0.0	*0.0	*51.0	*0.0	*25.0
24	*7.0	*8.0	*18.0	*51.0	*5.0	*0.0	*0.0	*0.0	*0.0	*41.0	*0.0	*2.0
25	*105.0	*0.0	*45.0	*1.0	*10.0	*0.0	*0.0	*0.0	*0.0	*0.0	*7.0	*31.0
26	*5.0	*9.0	*2.0	*0.0	*16.0	*0.0	*0.0	*16.0	*0.0	*1.0	*15.0	*0.0
27	*37.0	*7.0	*28.0	*6.0	*19.0	*0.0	*0.0	*0.0	*2.0	*11.0	*4.0	*63.0
28	*2.0	*40.0	*1.0	*4.0	*1.0	*0.0	*0.0	*0.0	*0.0	*14.0	*3.0	*36.0
29	*51.0		*56.0	*12.0	*0.0	*0.0	*0.0	*0.0	*13.0	*75.0	*4.0	*20.0
30	*3.0		*22.0	*0.0	*0.0	*0.0	*0.0	*0.0	*5.0	*5.0	*14.0	*22.0
31	*16.0		*135.0		*0.0		*0.0	*0.0		*4.0		*28.0
Max.	*105.0	*56.0	*135.0	*82.0	*68.0	*4.0	*14.0	*32.0	*140.0	*75.0	*64.0	*63.0
Total	*564.0	*505.0	*966.0	*449.0	*376.0	*4.0	*15.0	*54.0	*301.0	*422.0	*359.0	*535.0

Annual : \*4550.0      Max. : \*140.0

Year : 1976 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.0	52.0	17.0	3.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	100.0	*51.0
2	1.0	16.0	34.0	1.0	*3.0	0.0	0.0	*0.0	*0.0	0.0	7.0	*0.0
3	17.0	11.0	57.0	0.0	*0.0	0.0	0.0	*13.0	*0.0	0.0	20.0	*0.0
4	0.0	8.0	9.0	11.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	3.0	*5.0
5	28.0	160.0	14.0	27.0	*0.0	0.0	16.0	*0.0	*0.0	0.0	0.0	*2.0
6	47.0	20.0	1.0	20.0	*5.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*2.0
7	26.0	13.0	0.0	4.0	*26.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
8	4.0	1.0	0.0	6.0	*19.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
9	28.0	10.0	31.0	0.0	*12.0	0.0	0.0	*0.0	*0.0	0.0	6.0	*3.0
10	27.0	2.0	14.0	0.0	*4.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*7.0
11	25.0	52.0	35.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*22.0
12	21.0	26.0	0.0	1.0	*0.0	1.0	1.0	*0.0	*0.0	0.0	0.0	*0.0
13	21.0	22.0	3.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	81.0	0.0	*16.0
14	4.0	0.0	0.0	1.0	*0.0	0.0	0.0	*0.0	*0.0	2.0	4.0	*0.0
15	7.0	0.0	19.0	12.0	*0.0	0.0	0.0	*0.0	*0.0	2.0	0.0	*3.0
16	40.0	2.0	25.0	3.0	*0.0	0.0	0.0	*0.0	*0.0	7.0	0.0	*2.0
17	34.0	21.0	4.0	13.0	*0.0	0.0	0.0	*0.0	*0.0	9.0	0.0	*0.0
18	7.0	7.0	1.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	6.0	*0.0
19	39.0	7.0	5.0	1.0	*0.0	0.0	0.0	*0.0	*0.0	1.0	0.0	*17.0
20	27.0	0.0	52.0	10.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	6.0	*3.0
21	4.0	0.0	12.0	53.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	1.0	*0.0
22	9.0	26.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	15.0	*20.0
23	9.0	1.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	8.0	*0.0
24	13.0	4.0	0.0	1.0	*0.0	0.0	0.0	*0.0	*0.0	6.0	1.0	*0.0
25	7.0	74.0	0.0	2.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	4.0	*0.0
26	1.0	39.0	0.0	0.0	*0.0	0.0	0.0	*3.0	*3.0	0.0	28.0	*1.0
27	7.0	17.0	7.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	22.0	17.0	*0.0
28	0.0	1.0	19.0	0.0	*0.0	0.0	0.0	*10.0	*0.0	21.0	7.0	*1.0
29	0.0	41.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*10.0	3.0	0.0	*3.0
30	1.0		1.0	19.0	*0.0	0.0	0.0	*0.0	*0.0	14.0	0.0	*13.0
31	58.0		15.0		*8.0		0.0	*0.0		12.0		*17.0
Max.	58.0	160.0	57.0	53.0	*26.0	1.0	16.0	*13.0	*10.0	81.0	100.0	*51.0
Total	517.0	633.0	375.0	188.0	*77.0	1.0	17.0	*26.0	*13.0	180.0	233.0	*188.0

Annual : \*2448.0      Max. : \*160.0

\*\* : supplemented by nearby station with highest correlation



### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1977 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 0.0	19.0	10.0	0.0	23.0	2.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
2	* 0.0	18.0	4.0	0.0	0.0	20.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	36.0
3	* 1.0	6.0	46.0	4.0	9.0	12.0	* 0.0	* 0.0	* 1.0	* 0.0	0.0	23.0
4	* 17.0	36.0	24.0	0.0	2.0	6.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0
5	* 10.0	7.0	7.0	0.0	3.0	10.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
6	* 0.0	0.0	0.0	0.0	0.0	6.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	16.0
7	* 3.0	30.0	2.0	2.0	0.0	14.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
8	7.0	0.0	15.0	12.0	0.0	60.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	40.0
9	* 2.0	53.0	24.0	2.0	0.0	64.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	0.0
10	* 12.0	10.0	2.0	5.0	10.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
11	* 0.0	20.0	0.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	9.0	0.0
12	* 0.0	15.0	5.0	17.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	36.0
13	* 35.0	11.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 7.0	* 0.0	0.0	0.0
14	* 0.0	5.0	0.0	0.0	0.0	6.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
15	* 1.0	9.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
16	* 3.0	0.0	21.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	16.0	0.0
17	* 3.0	0.0	1.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.0
18	* 3.0	0.0	3.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	* 58.0	27.0	1.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
20	* 0.0	4.0	0.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	0.0
21	* 0.0	40.0	0.0	0.0	0.0	2.0	* 0.0	* 0.0	* 0.0	* 0.0	6.0	0.0
22	* 15.0	0.0	4.0	0.0	2.0	16.0	* 0.0	* 0.0	* 0.0	* 0.0	9.0	0.0
23	* 13.0	19.0	24.0	3.0	1.0	8.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	0.0
24	* 55.0	24.0	3.0	0.0	5.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	11.0
25	* 4.0	10.0	2.0	15.0	2.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
26	* 10.0	9.0	6.0	4.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.0	17.0
27	* 0.0	64.0	9.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	0.0
28	* 17.0	10.0	46.0	3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
29	* 0.0		15.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 1.0	0.0	0.0
30	* 19.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 7.0	43.0	33.0
31	* 53.0		1.0		0.0		* 0.0	* 0.0		* 1.0		17.0
Max.	* 58.0	64.0	46.0	17.0	23.0	64.0	* 0.0	* 0.0	* 7.0	* 7.0	43.0	40.0
Total	* 341.0	446.0	275.0	73.0	60.0	226.0	* 0.0	* 0.0	* 8.0	* 9.0	108.0	243.0

Annual : \* 1789.0      Max. : \* 64.0

Year : 1978 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	41.0	0.0	39.0	0.0	16.0	0.0	0.0	0.0	0.0	25.0	11.0	3.0
2	12.0	3.0	0.0	0.0	1.0	55.0	0.0	23.0	2.0	0.0	0.0	6.0
3	25.0	21.0	11.0	38.0	0.0	8.0	21.0	0.0	1.0	0.0	0.0	21.0
4	10.0	3.0	0.0	8.0	2.0	0.0	1.0	6.0	37.0	48.0	0.0	6.0
5	3.0	11.0	17.0	0.0	40.0	41.0	0.0	3.0	0.0	0.0	0.0	0.0
6	78.0	52.0	5.0	7.0	31.0	18.0	11.0	0.0	2.0	2.0	7.0	0.0
7	12.0	26.0	24.0	0.0	0.0	3.0	0.0	0.0	17.0	0.0	42.0	16.0
8	5.0	0.0	16.0	0.0	0.0	0.0	5.0	0.0	14.0	0.0	2.0	0.0
9	12.0	72.0	3.0	21.0	0.0	8.0	12.0	0.0	17.0	0.0	33.0	37.0
10	50.0	1.0	10.0	5.0	0.0	1.0	0.0	0.0	33.0	0.0	13.0	30.0
11	7.0	16.0	8.0	14.0	0.0	7.0	0.0	0.0	6.0	0.0	0.0	45.0
12	30.0	0.0	9.0	2.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	33.0
13	29.0	0.0	24.0	0.0	0.0	0.0	28.0	0.0	0.0	0.0	39.0	6.0
14	4.0	19.0	4.0	11.0	0.0	1.0	0.0	0.0	0.0	0.0	2.0	0.0
15	3.0	38.0	58.0	3.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	2.0	63.0	42.0	65.0	15.0	31.0	0.0	0.0	1.0	0.0	3.0	63.0
17	2.0	0.0	52.0	11.0	0.0	14.0	0.0	28.0	0.0	0.0	0.0	7.0
18	0.0	3.0	6.0	0.0	0.0	0.0	0.0	14.0	2.0	0.0	0.0	4.0
19	0.0	0.0	35.0	0.0	0.0	4.0	0.0	1.0	20.0	0.0	4.0	13.0
20	9.0	52.0	23.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	2.0	7.0
21	64.0	35.0	6.0	0.0	7.0	0.0	0.0	0.0	5.0	0.0	1.0	15.0
22	9.0	13.0	3.0	0.0	1.0	15.0	0.0	0.0	0.0	0.0	8.0	15.0
23	37.0	25.0	0.0	0.0	0.0	2.0	3.0	0.0	0.0	0.0	0.0	5.0
24	10.0	0.0	9.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	8.0	1.0	5.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0
26	2.0	9.0	16.0	0.0	0.0	31.0	0.0	0.0	0.0	2.0	0.0	26.0
27	41.0	9.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	27.0	2.0	8.0
28	6.0	9.0	0.0	16.0	0.0	1.0	0.0	0.0	0.0	16.0	3.0	9.0
29	1.0		0.0	15.0	0.0	7.0	0.0	0.0	0.0	1.0	0.0	2.0
30	7.0		0.0	0.0	0.0	80.0	0.0	19.0	0.0	6.0	30.0	10.0
31	19.0		0.0		0.0		0.0	25.0		2.0		0.0
Max.	78.0	72.0	58.0	65.0	40.0	80.0	28.0	28.0	37.0	48.0	42.0	63.0
Total	530.0	480.0	428.0	240.0	141.0	336.0	86.0	139.0	157.0	131.0	202.0	387.0

Annual : 3,257      Max. : 80.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1979 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	11.0	2.0	0.0	1.0	33.0	2.0	2.0	0.0	0.0	0.0	8.0	23.0
2	6.0	27.0	15.0	14.0	1.0	4.0	0.0	0.0	0.0	1.0	2.0	32.0
3	7.0	72.0	8.0	12.0	45.0	0.0	0.0	0.0	0.0	2.0	9.0	32.0
4	5.0	0.0	20.0	15.0	9.0	0.0	0.0	0.0	0.0	1.0	11.0	0.0
5	11.0	0.0	1.0	30.0	58.0	11.0	0.0	0.0	0.0	0.0	0.0	22.0
6	0.0	0.0	25.0	49.0	7.0	0.0	0.0	1.0	0.0	0.0	6.0	2.0
7	1.0	74.0	12.0	5.0	0.0	19.0	0.0	3.0	0.0	1.0	0.0	51.0
8	6.0	0.0	4.0	15.0	0.0	2.0	0.0	52.0	0.0	0.0	3.0	1.0
9	26.0	10.0	12.0	40.0	7.0	0.0	0.0	0.0	0.0	0.0	14.0	88.0
10	25.0	62.0	5.0	24.0	14.0	7.0	0.0	7.0	0.0	0.0	44.0	44.0
11	38.0	28.0	44.0	0.0	1.0	0.0	8.0	0.0	0.0	0.0	6.0	0.0
12	10.0	0.0	7.0	26.0	0.0	0.0	0.0	0.0	3.0	0.0	4.0	0.0
13	55.0	0.0	45.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	10.0
14	16.0	34.0	47.0	2.0	7.0	0.0	0.0	0.0	2.0	0.0	8.0	0.0
15	41.0	2.0	26.0	6.0	0.0	1.0	0.0	0.0	0.0	0.0	11.0	10.0
16	1.0	8.0	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	38.0	0.0
17	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
18	6.0	33.0	0.0	4.0	10.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
19	4.0	36.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
20	0.0	15.0	2.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0
21	5.0	0.0	57.0	5.0	4.0	0.0	0.0	0.0	0.0	10.0	0.0	3.0
22	66.0	2.0	0.0	26.0	20.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
23	4.0	77.0	0.0	48.0	63.0	0.0	0.0	0.0	0.0	44.0	0.0	14.0
24	59.0	3.0	3.0	3.0	6.0	0.0	0.0	0.0	10.0	0.0	0.0	8.0
25	55.0	18.0	1.0	41.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
26	32.0	5.0	26.0	13.0	0.0	0.0	0.0	0.0	26.0	0.0	0.0	32.0
27	5.0	14.0	14.0	30.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	97.0
28	0.0	5.0	0.0	1.0	10.0	1.0	0.0	0.0	3.0	26.0	22.0	1.0
29	0.0		20.0	0.0	0.0	0.0	0.0	0.0	34.0	23.0	0.0	3.0
30	0.0		9.0	32.0	0.0	0.0	0.0	0.0	2.0	28.0	19.0	29.0
31	0.0		23.0		12.0		0.0	0.0		20.0		25.0
<b>Max.</b>	66.0	77.0	57.0	49.0	63.0	19.0	8.0	52.0	34.0	44.0	44.0	97.0
<b>Total</b>	496.0	527.0	437.0	497.0	327.0	47.0	10.0	63.0	86.0	157.0	213.0	550.0

Annual : 3410                      Max. : 97.0

Year : 1980 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	33.0	1.0	13.0	0.0	1.0	0.0	0.0	0.0	6.0	0.0	0.0	3.0
2	7.0	1.0	10.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
3	2.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
4	0.0	0.0	4.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	2.0
5	3.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	4.0
6	0.0	65.0	2.0	62.0	13.0	0.0	0.0	0.0	0.0	0.0	3.0	2.0
7	3.0	0.0	1.0	21.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
8	2.0	1.0	1.0	25.0	1.0	0.0	0.0	9.0	0.0	0.0	1.0	15.0
9	73.0	2.0	1.0	5.0	0.0	0.0	2.0	31.0	0.0	0.0	9.0	15.0
10	19.0	0.0	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0
11	16.0	13.0	4.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	13.0
12	6.0	3.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
13	1.0	23.0	8.0	3.0	0.0	0.0	0.0	0.0	0.0	12.0	23.0	9.0
14	22.0	3.0	0.0	1.0	0.0	0.0	9.0	0.0	0.0	33.0	37.0	0.0
15	0.0	1.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	5.0	0.0	33.0	0.0	0.0	3.0	0.0	0.0	14.0	0.0	0.0
17	51.0	0.0	7.0	25.0	0.0	0.0	0.0	10.0	0.0	2.0	15.0	0.0
18	0.0	7.0	12.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	6.0
19	13.0	0.0	5.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	49.0	7.0
20	13.0	2.0	15.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	6.0
21	83.0	27.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	15.0	73.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
23	9.0	27.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	76.0	0.0	14.0
24	0.0	3.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	39.0	4.0	24.0
25	40.0	7.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0
26	32.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	4.0
27	1.0	1.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	3.0
28	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	11.0	12.0
29	32.0	20.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0	69.0	66.0
30	30.0		1.0	13.0	0.0	0.0	2.0	0.0	0.0	18.0	18.0	33.0
31	11.0		13.0		0.0		42.0	0.0		0.0		50.0
<b>Max.</b>	83.0	73.0	15.0	62.0	50.0	7.0	42.0	31.0	13.0	76.0	69.0	66.0
<b>Total</b>	517.0	296.0	134.0	325.0	71.0	7.0	58.0	50.0	19.0	267.0	386.0	303.0

Annual : 2433                      Max. : 83.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1981 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.0	18.0	0.0	15.0	6.0	0.0	2.0	0.0	0.0	0.0	0.0	25.0
2	0.0	0.0	15.0	6.0	45.0	0.0	0.0	1.0	0.0	0.0	0.0	44.0
3	24.0	30.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	50.0	8.0	32.0	4.0	14.0	0.0	0.0	5.0	0.0	6.0	8.0	59.0
5	0.0	16.0	0.0	6.0	4.0	0.0	0.0	0.0	0.0	0.0	67.0	3.0
6	4.0	13.0	4.0	0.0	49.0	0.0	1.0	0.0	0.0	0.0	0.0	14.0
7	27.0	1.0	6.0	0.0	12.0	0.0	12.0	0.0	0.0	0.0	0.0	4.0
8	43.0	22.0	0.0	1.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0
9	0.0	43.0	0.0	0.0	29.0	0.0	0.0	0.0	0.0	0.0	75.0	7.0
10	0.0	14.0	0.0	7.0	12.0	0.0	0.0	0.0	0.0	0.0	17.0	27.0
11	0.0	2.0	39.0	7.0	0.0	0.0	26.0	0.0	0.0	17.0	62.0	0.0
12	3.0	3.0	2.0	6.0	0.0	0.0	4.0	0.0	0.0	0.0	40.0	0.0
13	18.0	2.0	12.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.0
14	31.0	4.0	13.0	0.0	31.0	0.0	1.0	0.0	0.0	0.0	60.0	0.0
15	51.0	68.0	12.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	72.0
16	7.0	2.0	0.0	5.0	1.0	0.0	0.0	0.0	1.0	0.0	8.0	0.0
17	8.0	1.0	18.0	3.0	24.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0
18	6.0	0.0	15.0	0.0	17.0	0.0	8.0	0.0	16.0	0.0	0.0	0.0
19	55.0	0.0	2.0	26.0	34.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	2.0	0.0	1.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	27.0
21	27.0	0.0	0.0	1.0	0.0	13.0	0.0	4.0	0.0	0.0	0.0	2.0
22	50.0	1.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
23	17.0	12.0	6.0	15.0	0.0	3.0	0.0	0.0	0.0	0.0	28.0	0.0
24	7.0	45.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	87.0	0.0
25	0.0	2.0	16.0	7.0	0.0	2.0	0.0	0.0	13.0	1.0	0.0	17.0
26	5.0	6.0	0.0	0.0	0.0	7.0	0.0	7.0	2.0	3.0	53.0	28.0
27	10.0	30.0	19.0	10.0	0.0	13.0	0.0	0.0	0.0	3.0	8.0	4.0
28	79.0	50.0	56.0	28.0	0.0	4.0	0.0	0.0	47.0	0.0	10.0	0.0
29	0.0		24.0	96.0	0.0	0.0	0.0	1.0	0.0	0.0	18.0	8.0
30	8.0		23.0	20.0	0.0	0.0	0.0	0.0	21.0	3.0	57.0	8.0
31	1.0		0.0		0.0		0.0			0.0		2.0
<b>Max.</b>	79.0	68.0	56.0	96.0	49.0	13.0	26.0	7.0	47.0	17.0	87.0	72.0
<b>Total</b>	534.0	395.0	314.0	285.0	298.0	73.0	69.0	18.0	100.0	33.0	640.0	398.0

Annual : 3157      Max. : 96.0

Year : 1982 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	8.0	22.0	11.0	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	23.0	17.0	0.0	16.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	17.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	11.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0
6	79.0	74.0	19.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0
7	27.0	59.0	0.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
8	54.0	17.0	2.0	13.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	17.0
9	32.0	3.0	11.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0
10	37.0	26.0	16.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
11	62.0	3.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	17.0
12	89.0	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	12.0	29.0	7.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	23.0
14	12.0	6.0	23.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	9.0
15	0.0	4.0	29.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	28.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	4.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
18	12.0	16.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	3.0
19	3.0	3.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	9.0	12.0
20	7.0	1.0	2.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	3.0
21	3.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	5.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	29.0
23	37.0	3.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
24	0.0	43.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
25	7.0	97.0	9.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
26	29.0	55.0	32.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.0
27	49.0	0.0	0.0	2.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	16.0	0.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
29	16.0		0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
30	4.0		0.0	14.0	0.0	0.0	0.0	0.0	1.0	5.0	0.0	45.0
31	49.0		0.0		1.0		0.0	0.0		1.0		1.0
<b>Max.</b>	89.0	97.0	43.0	80.0	19.0	1.0	4.0	0.0	1.0	5.0	19.0	81.0
<b>Total</b>	710.0	570.0	260.0	355.0	37.0	1.0	4.0	0.0	3.0	6.0	53.0	495.0

Annual : 2494      Max. : 97.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1983 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	51.0	1.0	2.0	8.0	0.0	1.0	0.0	0.0	0.0	0.0	2.0	0.0
2	25.0	10.0	0.0	5.0	25.0	12.0	0.0	0.0	0.0	0.0	4.0	4.0
3	24.0	13.0	2.0	1.0	13.0	0.0	0.0	0.0	0.0	0.0	24.0	3.0
4	60.0	19.0	0.0	16.0	12.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
5	1.0	4.0	37.0	5.0	79.0	0.0	0.0	0.0	0.0	2.0	28.0	0.0
6	7.0	54.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
7	69.0	11.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	13.0
8	1.0	14.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	23.0
9	10.0	40.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
10	1.0	8.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	15.0
11	8.0	0.0	6.0	4.0	0.0	7.0	0.0	0.0	0.0	0.0	27.0	20.0
12	0.0	1.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
13	14.0	30.0	23.0	8.0	28.0	0.0	0.0	0.0	0.0	12.0	46.0	0.0
14	0.0	24.0	1.0	55.0	10.0	0.0	0.0	0.0	0.0	8.0	3.0	56.0
15	0.0	21.0	4.0	50.0	31.0	0.0	0.0	0.0	0.0	10.0	29.0	7.0
16	22.0	4.0	0.0	0.0	44.0	0.0	0.0	0.0	0.0	0.0	4.0	7.0
17	45.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
18	54.0	27.0	2.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0
19	48.0	1.0	23.0	0.0	8.0	0.0	4.0	0.0	0.0	0.0	10.0	0.0
20	39.0	0.0	22.0	0.0	1.0	0.0	0.0	0.0	0.0	16.0	156.0	0.0
21	0.0	70.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	3.0
22	0.0	73.0	9.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	27.0
23	0.0	57.0	14.0	0.0	8.0	0.0	0.0	0.0	0.0	16.0	22.0	33.0
24	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	20.0	0.0	61.0	13.0
25	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	36.0	8.0	35.0
26	1.0	5.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	26.0
27	0.0	30.0	5.0	20.0	0.0	0.0	0.0	0.0	0.0	25.0	6.0	22.0
28	0.0	36.0	34.0	0.0	4.0	0.0	0.0	0.0	0.0	3.0	7.0	10.0
29	0.0		0.0	1.0	6.0	0.0	0.0	0.0	0.0	2.0	12.0	38.0
30	36.0		0.0	30.0	0.0	0.0	0.0	0.0	0.0	39.0	19.0	0.0
31	4.0		8.0		1.0		0.0	0.0		55.0		31.0
<b>Max.</b>	69.0	73.0	38.0	55.0	79.0	14.0	4.0	0.0	20.0	55.0	156.0	56.0
<b>Total</b>	520.0	563.0	294.0	229.0	350.0	34.0	4.0	0.0	20.0	234.0	608.0	395.0

Annual : 3251                      Max. : 156.0

Year : 1984 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	26.0	51.0	0.0	4.0	0.0	0.0	93.0	0.0	0.0	0.0	0.0	43.0
2	2.0	7.0	59.0	0.0	2.0	0.0	0.0	0.0	0.0	3.0	11.0	26.0
3	1.0	44.0	2.0	0.0	3.0	0.0	0.0	0.0	6.0	8.0	0.0	22.0
4	25.0	41.0	88.0	15.0	0.0	0.0	0.0	0.0	54.0	3.0	0.0	2.0
5	22.0	32.0	14.0	18.0	0.0	0.0	20.0	0.0	32.0	7.0	5.0	57.0
6	7.0	7.0	10.0	42.0	45.0	0.0	0.0	0.0	9.0	39.0	0.0	19.0
7	3.0	0.0	2.0	2.0	6.0	0.0	0.0	0.0	4.0	7.0	0.0	40.0
8	0.0	0.0	65.0	2.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0
9	43.0	77.0	19.0	64.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	20.0	28.0	10.0	36.0	0.0	11.0	0.0	0.0	26.0	0.0	0.0	0.0
11	45.0	18.0	0.0	21.0	0.0	2.0	0.0	0.0	39.0	0.0	0.0	63.0
12	27.0	21.0	37.0	9.0	2.0	0.0	0.0	0.0	4.0	31.0	0.0	17.0
13	60.0	7.0	3.0	23.0	0.0	0.0	0.0	0.0	1.0	14.0	0.0	73.0
14	22.0	2.0	3.0	9.0	1.0	0.0	0.0	0.0	29.0	1.0	0.0	5.0
15	3.0	8.0	0.0	2.0	9.0	0.0	0.0	0.0	42.0	0.0	0.0	2.0
16	3.0	1.0	40.0	10.0	0.0	0.0	0.0	0.0	62.0	3.0	3.0	9.0
17	31.0	4.0	18.0	12.0	14.0	0.0	0.0	0.0	43.0	0.0	4.0	4.0
18	1.0	58.0	0.0	0.0	4.0	0.0	3.0	0.0	6.0	0.0	0.0	0.0
19	17.0	51.0	2.0	0.0	0.0	0.0	0.0	0.0	6.0	3.0	0.0	0.0
20	1.0	29.0	35.0	4.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	25.0	2.0	0.0	9.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0
22	7.0	19.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	7.0	0.0
23	13.0	20.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	29.0
24	38.0	6.0	41.0	14.0	6.0	0.0	0.0	0.0	6.0	0.0	8.0	5.0
25	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	28.0	42.0
26	9.0	17.0	0.0	14.0	0.0	0.0	0.0	22.0	0.0	0.0	22.0	38.0
27	9.0	6.0	0.0	0.0	0.0	0.0	0.0	27.0	12.0	0.0	34.0	0.0
28	35.0	0.0	19.0	53.0	0.0	0.0	0.0	0.0	0.0	1.0	5.0	34.0
29	28.0	0.0	5.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	10.0
30	8.0		3.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	2.0	2.0
31	35.0		0.0		0.0		0.0	0.0		0.0		6.0
<b>Max.</b>	60.0	77.0	88.0	64.0	45.0	12.0	93.0	27.0	62.0	39.0	34.0	73.0
<b>Total</b>	568.0	556.0	486.0	375.0	115.0	25.0	116.0	49.0	392.0	121.0	135.0	548.0

Annual : 3486                      Max. : 93.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1985 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	14.0	0.0	1.0	12.0	16.0	0.0	0.0	1.0	0.0	7.0
2	3.0	2.0	34.0	46.0	0.0	106.0	17.0	0.0	0.0	0.0	1.0	10.0
3	0.0	1.0	0.0	0.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	2.0
4	0.0	7.0	6.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	16.0
5	1.0	0.0	58.0	57.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
6	9.0	38.0	45.0	2.0	55.0	0.0	0.0	0.0	0.0	0.0	14.0	49.0
7	6.0	57.0	46.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0
8	0.0	49.0	141.0	15.0	8.0	29.0	0.0	0.0	0.0	0.0	4.0	0.0
9	47.0	58.0	33.0	0.0	58.0	0.0	0.0	0.0	9.0	2.0	41.0	0.0
10	8.0	7.0	1.0	3.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	2.0
11	1.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	1.0	59.0	0.0	0.0	42.0	0.0	2.0	0.0	0.0	0.0	0.0	11.0
13	0.0	10.0	0.0	51.0	7.0	2.0	0.0	0.0	8.0	0.0	11.0	20.0
14	0.0	39.0	0.0	41.0	0.0	0.0	0.0	6.0	0.0	0.0	7.0	0.0
15	18.0	4.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	45.0	0.0	0.0
16	5.0	0.0	0.0	8.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
17	30.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
18	0.0	13.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
19	2.0	0.0	23.0	3.0	20.0	3.0	0.0	0.0	0.0	0.0	5.0	26.0
20	33.0	21.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
21	26.0	14.0	24.0	13.0	0.0	0.0	0.0	0.0	0.0	1.0	50.0	17.0
22	0.0	36.0	28.0	42.0	0.0	0.0	0.0	0.0	0.0	27.0	26.0	18.0
23	0.0	28.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	4.0
24	22.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	12.0
25	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	1.0	87.0	2.0	18.0
26	20.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	64.0	26.0
27	7.0	5.0	2.0	13.0	0.0	0.0	0.0	0.0	6.0	0.0	60.0	37.0
28	0.0	37.0	89.0	4.0	9.0	0.0	0.0	0.0	23.0	58.0	0.0	1.0
29	14.0		8.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	16.0	20.0
30	9.0		8.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0	22.0	28.0
31	0.0		48.0		15.0		0.0	0.0		3.0		2.0
<b>Max.</b>	47.0	59.0	141.0	57.0	58.0	106.0	17.0	14.0	23.0	87.0	64.0	49.0
<b>Total</b>	262.0	543.0	666.0	313.0	220.0	208.0	41.0	20.0	47.0	259.0	370.0	373.0

Annual : 3322                      Max. : 141.0

Year : 1986 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.0	6.0	3.0	97.0	0.0	21.0	* 0.0	* 0.0	65.0	0.0	0.0	0.0
2	11.0	27.0	38.0	0.0	0.0	16.0	* 0.0	* 0.0	1.0	0.0	0.0	0.0
3	4.0	5.0	26.0	6.0	0.0	5.0	* 0.0	* 0.0	1.0	0.0	4.0	0.0
4	15.0	6.0	16.0	8.0	0.0	13.0	* 0.0	* 0.0	11.0	1.0	4.0	2.0
5	24.0	35.0	29.0	4.0	0.0	7.0	* 0.0	* 0.0	0.0	0.0	10.0	1.0
6	4.0	0.0	19.0	46.0	0.0	1.0	* 0.0	* 0.0	0.0	0.0	18.0	0.0
7	2.0	25.0	37.0	0.0	15.0	2.0	* 0.0	* 5.0	0.0	0.0	1.0	0.0
8	2.0	0.0	20.0	1.0	13.0	0.0	* 5.0	* 0.0	5.0	1.0	31.0	0.0
9	77.0	41.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	37.0	10.0	2.0	9.0
10	31.0	26.0	3.0	11.0	0.0	0.0	* 1.0	* 0.0	7.0	11.0	3.0	0.0
11	71.0	9.0	2.0	9.0	7.0	0.0	* 0.0	* 0.0	0.0	29.0	0.0	0.0
12	22.0	0.0	7.0	10.0	0.0	34.0	* 0.0	* 0.0	0.0	73.0	35.0	6.0
13	14.0	12.0	19.0	20.0	0.0	22.0	* 0.0	* 0.0	0.0	12.0	0.0	8.0
14	0.0	9.0	1.0	0.0	0.0	20.0	* 1.0	* 0.0	0.0	0.0	2.0	22.0
15	5.0	5.0	1.0	0.0	1.0	4.0	* 0.0	* 0.0	0.0	0.0	1.0	15.0
16	1.0	26.0	1.0	63.0	0.0	7.0	* 1.0	* 0.0	19.0	0.0	0.0	0.0
17	3.0	0.0	0.0	9.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
18	0.0	13.0	3.0	1.0	0.0	0.0	* 0.0	* 0.0	35.0	0.0	8.0	2.0
19	6.0	2.0	42.0	8.0	0.0	0.0	* 2.0	* 0.0	3.0	0.0	24.0	0.0
20	22.0	35.0	2.0	0.0	0.0	0.0	* 0.0	* 0.0	50.0	0.0	0.0	0.0
21	51.0	32.0	15.0	0.0	0.0	0.0	* 75.0	* 0.0	3.0	0.0	20.0	0.0
22	45.0	15.0	13.0	0.0	4.0	0.0	* 0.0	* 0.0	8.0	0.0	0.0	45.0
23	52.0	0.0	57.0	0.0	12.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	22.0
24	5.0	51.0	4.0	0.0	0.0	0.0	* 0.0	* 9.0	58.0	0.0	3.0	0.0
25	47.0	0.0	83.0	0.0	0.0	0.0	* 0.0	* 0.0	61.0	12.0	23.0	7.0
26	38.0	0.0	7.0	8.0	0.0	7.0	* 18.0	* 0.0	23.0	20.0	29.0	0.0
27	68.0	3.0	1.0	0.0	13.0	21.0	* 0.0	* 0.0	0.0	34.0	12.0	3.0
28	11.0	14.0	37.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	18.0	6.0	22.0
29	5.0		3.0	0.0	0.0	10.0	* 0.0	* 0.0	0.0	30.0	0.0	34.0
30	48.0		19.0	0.0	0.0	2.0	* 0.0	* 0.0	0.0	2.0	0.0	23.0
31	0.0		23.0		0.0		* 0.0	* 0.0		0.0		13.0
<b>Max.</b>	77.0	51.0	83.0	97.0	15.0	34.0	* 75.0	* 9.0	65.0	73.0	35.0	45.0
<b>Total</b>	690.0	397.0	531.0	301.0	65.0	192.0	* 103.0	* 14.0	387.0	253.0	236.0	234.0

Annual : \* 3403.0                      Max. : \* 97.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT TAWANGMANGU**

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1987 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	38.0	3.0	0.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
2	15.0	29.0	41.0	0.0	5.0	1.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.0
3	25.0	25.0	2.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
4	133.0	19.0	2.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 15.0	0.0	8.0
5	57.0	1.0	44.0	1.0	0.0	7.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	38.0
6	1.0	0.0	19.0	4.0	130.5	2.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	7.0
7	68.0	0.0	5.0	13.0	48.1	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.0	8.0
8	3.0	13.0	20.0	27.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.0	24.0
9	35.0	58.0	17.0	51.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.0	0.0
10	8.0	46.0	4.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 2.0	7.0	42.0
11	13.0	20.0	26.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	37.0
12	26.0	10.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	17.0
13	0.0	5.0	0.0	7.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	55.0
14	74.0	2.0	0.0	0.0	49.7	0.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	2.0
15	15.0	7.0	1.0	0.0	17.4	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.0	0.0
16	19.0	5.0	14.0	0.0	0.0	24.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	15.0
17	2.0	51.0	13.0	13.0	0.0	0.0	* 19.0	* 0.0	* 0.0	* 0.0	0.0	7.0
18	11.0	64.0	0.0	0.0	0.0	0.0	* 7.0	* 0.0	* 0.0	* 0.0	0.0	6.0
19	1.0	7.0	0.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	4.0	5.0
20	0.0	70.0	0.0	6.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	46.0	51.0
21	38.0	26.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0
22	43.0	35.0	30.0	21.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	17.0
23	0.0	0.0	93.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	66.0	18.0
24	0.0	0.0	7.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	21.0	75.0
25	28.0	19.0	8.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	13.0	11.0
26	19.0	27.0	5.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	6.0	31.0
27	22.0	0.0	2.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	4.0	3.0
28	3.0	0.0	27.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	5.0
29	2.0		12.0	0.0	0.0	0.0	* 0.0	* 0.0	* 12.0	* 0.0	9.0	0.0
30	14.0		0.0	8.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 1.0	81.0	0.0
31	4.0		0.0		0.0		* 0.0	* 0.0		* 15.0		0.0
<b>Max.</b>	133.0	70.0	93.0	51.0	130.5	24.0	* 19.0	* 0.0	* 12.0	* 15.0	81.0	75.0
<b>Total</b>	717.0	542.0	392.0	160.0	250.6	34.0	* 26.0	* 0.0	* 12.0	* 18.0	283.0	491.0

Annual : \* 2925.6      Max. : \* 133.0

Year : 1988 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
2	0.0	40.0	14.0	2.0	4.0	0.0	0.0	0.0	0.0	4.0	1.0	24.0
3	0.0	99.0	4.0	12.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0
4	0.0	2.0	14.0	0.0	9.0	0.0	0.0	26.0	0.0	0.0	0.0	0.0
5	0.0	232.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	48.0	13.0	53.0	0.0	11.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
7	64.0	9.0	0.0	47.0	11.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	5.0	0.0	84.0	2.0	0.0	1.0	0.0	0.0	0.0	0.0
9	2.0	0.0	4.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	34.0	0.0
10	37.0	43.0	30.0	27.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0
11	3.0	42.0	37.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
12	1.0	64.0	53.0	0.0	18.0	0.0	0.0	0.0	0.0	1.0	72.0	0.0
13	1.0	54.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0
14	0.0	2.0	10.0	0.0	5.0	0.0	0.0	0.0	0.0	12.0	42.0	0.0
15	2.0	31.0	6.0	0.0	5.0	0.0	0.0	0.0	0.0	7.0	16.0	2.0
16	50.0	3.0	0.0	0.0	0.0	4.0	5.0	0.0	0.0	5.0	11.0	7.0
17	60.0	0.0	50.0	0.0	0.0	0.0	5.0	0.0	17.0	16.0	33.0	27.0
18	33.0	0.0	6.0	19.0	21.0	2.0	0.0	0.0	0.0	0.0	0.0	3.0
19	5.0	0.0	3.0	56.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	5.0
20	7.0	29.0	14.0	55.0	0.0	37.0	0.0	0.0	0.0	3.0	0.0	28.0
21	14.0	0.0	9.0	3.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	28.0
22	93.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	96.0
23	0.0	6.0	3.0	0.0	44.0	0.0	0.0	0.0	0.0	0.0	49.0	23.0
24	9.0	0.0	19.0	0.0	70.0	0.0	0.0	0.0	6.0	0.0	0.0	5.0
25	21.0	7.0	15.0	0.0	3.0	0.0	3.0	0.0	0.0	0.0	39.0	0.0
26	24.0	59.0	23.0	0.0	1.0	0.0	0.0	0.0	0.0	5.0	17.0	0.0
27	17.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	26.0	3.0
28	21.0	61.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
29	4.0	0.0	58.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	3.0	16.0
30	20.0		23.0	2.0	0.0	0.0	0.0	0.0	0.0	12.0	4.0	20.0
31	70.0		19.0		0.0		0.0	0.0		2.0		25.0
<b>Max.</b>	93.0	232.0	58.0	56.0	84.0	37.0	5.0	26.0	17.0	16.0	72.0	96.0
<b>Total</b>	606.0	863.0	488.0	224.0	300.0	69.0	13.0	28.0	23.0	73.0	377.0	322.0

Annual : 3386      Max. : 232.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1989 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	16.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
2	3.0	11.0	14.0	16.0	0.0	26.0	0.0	* 0.0	0.0	0.0	49.0	14.0
3	0.0	23.0	6.0	7.0	40.0	1.0	0.0	* 0.0	0.0	0.0	0.0	0.0
4	69.0	0.0	16.0	9.0	14.0	23.0	0.0	* 0.0	0.0	0.0	0.0	10.0
5	2.0	7.0	15.0	11.0	0.0	1.0	0.0	* 0.0	0.0	0.0	0.0	49.0
6	33.0	15.0	13.0	23.0	23.0	39.0	0.0	* 15.0	0.0	0.0	6.0	0.0
7	21.0	3.0	10.0	13.0	0.0	3.0	0.0	* 0.0	0.0	0.0	10.0	0.0
8	7.0	0.0	0.0	22.0	17.0	12.0	4.0	* 0.0	0.0	8.0	32.0	0.0
9	18.0	14.0	43.0	3.0	41.0	0.0	30.0	* 0.0	0.0	0.0	5.0	12.0
10	10.0	40.0	0.0	1.0	2.0	0.0	0.0	* 0.0	0.0	0.0	0.0	17.0
11	9.0	52.0	1.0	1.0	0.0	7.0	0.0	* 0.0	0.0	58.0	0.0	34.0
12	16.0	47.0	2.0	1.0	1.0	0.0	3.0	* 0.0	0.0	0.0	0.0	0.0
13	18.0	108.0	0.0	13.0	40.0	4.0	0.0	* 0.0	0.0	0.0	0.0	18.0
14	65.0	45.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	3.0	0.0
15	0.0	3.0	0.0	0.0	0.0	0.0	1.0	* 0.0	0.0	1.0	13.0	8.0
16	1.0	7.0	45.0	0.0	0.0	9.0	0.0	* 0.0	0.0	3.0	14.0	1.0
17	0.0	37.0	0.0	0.0	0.0	3.0	1.0	* 0.0	0.0	0.0	18.0	0.0
18	9.0	6.0	1.0	15.0	0.0	0.0	1.0	* 0.0	0.0	0.0	0.0	10.0
19	19.0	32.0	3.0	4.0	0.0	7.0	25.0	* 0.0	0.0	0.0	0.0	1.0
20	0.0	25.0	30.0	0.0	0.0	0.0	62.0	* 0.0	0.0	0.0	0.0	0.0
21	1.0	62.0	0.0	5.0	1.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
22	16.0	27.0	0.0	17.0	7.0	1.0	0.0	* 0.0	0.0	0.0	0.0	19.0
23	16.0	42.0	0.0	1.0	10.0	0.0	6.0	* 0.0	0.0	1.0	0.0	8.0
24	50.0	0.0	3.0	0.0	0.0	0.0	1.0	* 0.0	0.0	0.0	0.0	17.0
25	56.0	16.0	6.0	4.0	7.0	0.0	1.0	* 0.0	0.0	0.0	0.0	0.0
26	23.0	40.0	12.0	1.0	1.0	0.0	58.0	* 0.0	0.0	0.0	0.0	0.0
27	1.0	44.0	0.0	0.0	0.0	0.0	10.0	* 0.0	0.0	0.0	0.0	24.0
28	0.0	60.0	46.0	1.0	5.0	0.0	5.0	* 1.0	0.0	15.0	0.0	0.0
29	0.0		2.0	50.0	17.0	0.0	0.0	* 4.0	0.0	32.0	0.0	15.0
30	10.0		6.0	0.0	0.0	0.0	0.0	* 119.0	0.0	5.0	2.0	89.0
31	0.0		5.0		40.0		0.0	* 0.0		0.0		58.0
Max.	69.0	108.0	46.0	50.0	41.0	39.0	62.0	* 119.0	0.0	58.0	49.0	89.0
Total	473.0	782.0	279.0	218.0	266.0	136.0	208.0	* 139.0	0.0	123.0	152.0	404.0

Annual : \* 3180.0      Max. : \* 119.0

Year : 1990 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	47.0	95.0	44.0	2.0	0.0	0.0	0.0	0.0	* 0.0	25.0	0.0	2.0
2	30.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	4.0	0.0	5.0
3	19.0	15.0	36.0	0.0	0.0	46.0	27.0	6.0	* 0.0	0.0	0.0	37.0
4	21.0	0.0	2.0	12.0	0.0	7.0	4.0	0.0	* 0.0	0.0	0.0	56.0
5	18.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	* 0.0	0.0	0.0	15.0
6	20.0	4.0	3.0	0.0	0.0	0.0	65.0	0.0	* 0.0	0.0	0.0	46.0
7	1.0	12.0	44.0	9.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
8	5.0	6.0	2.0	26.0	0.0	0.0	6.0	0.0	* 0.0	0.0	0.0	0.0
9	7.0	0.0	14.0	2.0	0.0	0.0	0.0	0.0	* 24.0	0.0	0.0	2.0
10	12.0	35.0	1.0	1.0	0.0	0.0	0.0	0.0	* 3.0	0.0	0.0	0.0
11	40.0	0.0	2.0	0.0	3.0	0.0	0.0	0.0	* 0.0	0.0	45.0	5.0
12	0.0	0.0	1.0	0.0	30.0	0.0	0.0	0.0	* 0.0	0.0	0.0	48.0
13	18.0	12.0	0.0	0.0	32.0	0.0	7.0	0.0	* 0.0	0.0	2.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	* 0.0	0.0	0.0	63.0
15	84.0	0.0	10.0	25.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	3.0
16	14.0	25.0	1.0	3.0	30.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.0
17	15.0	12.0	1.0	24.0	65.0	0.0	0.0	0.0	* 0.0	0.0	0.0	49.0
18	62.0	35.0	34.0	32.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	47.0
19	14.0	25.0	17.0	10.0	0.0	0.0	0.0	0.0	* 0.0	0.0	2.0	25.0
20	28.0	35.0	0.0	33.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	57.0
21	40.0	37.0	0.0	2.0	0.0	0.0	1.0	0.0	* 0.0	2.0	0.0	69.0
22	25.0	40.0	0.0	3.0	12.0	8.0	0.0	0.0	* 0.0	0.0	0.0	0.0
23	22.0	0.0	0.0	8.0	69.0	11.0	0.0	33.0	* 0.0	0.0	0.0	2.0
24	20.0	10.0	0.0	0.0	7.0	8.0	3.0	0.0	* 0.0	6.0	0.0	7.0
25	9.0	10.0	4.0	27.0	0.0	2.0	2.0	0.0	* 0.0	0.0	12.0	12.0
26	40.0	10.0	4.0	23.0	2.0	0.0	9.0	0.0	* 0.0	6.0	2.0	10.0
27	1.0	3.0	0.0	3.0	15.0	1.0	0.0	2.0	* 0.0	0.0	0.0	11.0
28	6.0	5.0	0.0	20.0	1.0	1.0	0.0	0.0	* 0.0	12.0	0.0	66.0
29	0.0		10.0	7.0	30.0	0.0	0.0	0.0	* 0.0	0.0	6.0	0.0
30	1.0		8.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
31	0.0		0.0		10.0		0.0	0.0		0.0		7.0
Max.	84.0	95.0	44.0	33.0	69.0	46.0	65.0	33.0	* 24.0	25.0	45.0	69.0
Total	619.0	430.0	239.0	273.0	306.0	84.0	141.0	41.0	* 27.0	55.0	69.0	646.0

Annual : \* 2930.0      Max. : \* 95.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1991 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	15.0	2.0	1.0	15.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	37.0	9.0	18.0	63.0	18.0	0.0	0.0	0.0	6.0	0.0	1.0	1.0
3	8.0	0.0	5.0	0.0	16.0	0.0	0.0	0.0	1.0	0.0	1.0	31.0
4	50.0	35.0	6.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	15.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	9.0	11.0
6	19.0	12.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
7	12.0	43.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	8.0
8	20.0	16.0	27.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0
9	25.0	29.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
10	24.0	12.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	33.0	2.0
11	11.0	79.0	41.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	19.0
12	40.0	16.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	12.0
13	43.0	4.0	11.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	77.0	2.0
14	48.0	9.0	4.0	0.0	0.0	0.0	2.0	0.0	2.0	0.0	1.0	0.0
15	58.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
16	9.0	10.0	22.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	5.0	77.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
18	98.0	39.0	12.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	111.0	19.0	10.0	77.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	6.0	7.0	21.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	10.0
21	59.0	60.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	1.0
22	16.0	22.0	2.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	27.0
23	36.0	12.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.0	0.0
24	12.0	12.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
25	3.0	3.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	3.0	8.0	10.0
26	6.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	11.0
27	0.0	41.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	29.0
28	0.0	28.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0
29	0.0		0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
30	12.0		0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	3.0
31	24.0		22.0		0.0		0.0	0.0				11.0
Max.	111.0	79.0	77.0	77.0	18.0	0.0	2.0	0.0	6.0	3.0	96.0	47.0
Total	802.0	566.0	296.0	466.0	53.0	0.0	2.0	0.0	9.0	3.0	381.0	324.0

Annual : 2902                      Max. : 111.0

Year : 1992 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	46.0	3.0	9.0	7.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	66.0
2	1.0	4.0	0.0	32.0	0.0	14.0	4.0	6.0	7.0	8.0	2.0	66.0
3	0.0	21.0	39.0	0.0	0.0	0.0	6.0	20.0	10.0	4.0	0.0	26.0
4	12.0	0.0	0.0	59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
5	0.0	12.0	0.0	3.0	0.0	0.0	0.0	0.0	75.0	0.0	0.0	41.0
6	0.0	10.0	0.0	6.0	0.0	4.0	0.0	0.0	1.0	10.0	0.0	5.0
7	4.0	19.0	31.0	7.0	0.0	0.0	0.0	0.0	6.0	14.0	0.0	0.0
8	23.0	50.0	7.0	9.0	0.0	0.0	0.0	0.0	6.0	9.0	1.0	0.0
9	43.0	21.0	2.0	0.0	0.0	3.0	0.0	0.0	24.0	3.0	7.0	15.0
10	9.0	54.0	55.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	5.0
11	63.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0
12	0.0	3.0	48.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
13	1.0	0.0	39.0	16.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	12.0
14	68.0	73.0	33.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
15	25.0	16.0	42.0	32.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	12.0
16	0.0	9.0	4.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	1.0	54.0
17	2.0	6.0	49.0	49.0	0.0	0.0	0.0	0.0	0.0	9.0	27.0	7.0
18	1.0	17.0	67.0	14.0	0.0	0.0	0.0	0.0	0.0	52.0	5.0	3.0
19	48.0	3.0	6.0	4.0	0.0	0.0	0.0	0.0	0.0	22.0	4.0	0.0
20	65.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	12.0
21	0.0	44.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0
22	50.0	27.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	2.0	27.0	22.0
23	26.0	35.0	0.0	17.0	0.0	0.0	2.0	0.0	0.0	4.0	44.0	54.0
24	81.0	0.0	0.0	25.0	0.0	0.0	7.0	3.0	3.0	27.0	4.0	0.0
25	49.0	0.0	0.0	0.0	14.0	0.0	0.0	5.0	0.0	24.0	25.0	28.0
26	20.0	0.0	52.0	4.0	0.0	0.0	0.0	5.0	0.0	3.0	15.0	0.0
27	5.0	0.0	1.0	17.0	10.0	0.0	0.0	15.0	0.0	0.0	10.0	0.0
28	11.0	13.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0	2.0	0.0
29	116.0	12.0	42.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	2.0	8.0
30	38.0		3.0	0.0	30.0	0.0	0.0	75.0	0.0	0.0	0.0	0.0
31	5.0		7.0		4.0		0.0	60.0		0.0		12.0
Max.	116.0	73.0	67.0	59.0	30.0	14.0	7.0	75.0	75.0	52.0	44.0	70.0
Total	812.0	452.0	628.0	375.0	90.0	21.0	19.0	200.0	145.0	220.0	240.0	579.0

Annual : 3781                      Max. : 116.0

" \* " : supplemented by nearby station with highest correlation



### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1993 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 43.0	0.0	0.0	9.0	20.0	0.0	0.0	0.0	0.0	* 0.0	0.0	79.0
2	* 12.0	0.0	0.0	5.0	47.0	0.0	0.0	4.0	0.0	* 0.0	0.0	39.0
3	* 27.0	0.0	0.0	3.0	0.0	25.0	0.0	0.0	0.0	* 0.0	0.0	12.0
4	* 43.0	0.0	15.0	9.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	24.0
5	* 1.0	0.0	31.0	0.0	19.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
6	* 8.0	0.0	12.0	28.0	11.0	0.0	0.0	0.0	0.0	* 0.0	0.0	1.0
7	* 8.0	0.0	49.0	10.0	0.0	12.0	0.0	0.0	0.0	* 0.0	0.0	4.0
8	* 1.0	23.0	54.0	3.0	0.0	11.0	0.0	0.0	0.0	* 0.0	0.0	13.0
9	* 0.0	10.0	2.0	15.0	0.0	3.0	0.0	0.0	0.0	* 3.0	0.0	13.0
10	* 32.0	0.0	10.0	7.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0
11	* 6.0	0.0	17.0	4.0	0.0	5.0	0.0	0.0	0.0	* 0.0	0.0	2.0
12	* 18.0	0.0	1.0	16.0	0.0	32.0	0.0	0.0	0.0	* 0.0	30.0	4.0
13	* 0.0	0.0	82.0	0.0	0.0	5.0	0.0	0.0	0.0	* 0.0	12.0	12.0
14	* 0.0	50.0	25.0	51.0	0.0	4.0	0.0	0.0	0.0	* 10.0	9.0	13.0
15	* 0.0	4.0	0.0	15.0	0.0	7.0	0.0	0.0	0.0	* 20.0	9.0	0.0
16	* 41.0	6.0	0.0	16.0	0.0	8.0	0.0	0.0	0.0	* 0.0	19.0	0.0
17	* 13.0	20.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	* 0.0	15.0	0.0
18	* 23.0	0.0	50.0	1.0	0.0	0.0	0.0	0.0	0.0	* 0.0	100.0	0.0
19	* 4.0	1.0	21.0	13.0	0.0	3.0	0.0	0.0	0.0	* 0.0	5.0	0.0
20	* 2.5	10.0	13.0	7.0	0.0	0.0	0.0	0.0	4.0	* 0.0	70.0	71.0
21	* 8.0	2.0	12.0	47.0	0.0	0.0	0.0	0.0	0.0	* 0.0	5.0	3.0
22	* 5.0	13.0	1.0	4.0	0.0	2.0	0.0	0.0	0.0	* 3.0	0.0	53.0
23	* 110.0	3.0	4.0	20.0	2.0	0.0	0.0	0.0	0.0	* 0.0	0.0	43.0
24	* 88.0	0.0	1.0	4.0	0.0	0.0	0.0	0.0	0.0	* 0.0	6.0	13.0
25	* 36.0	0.0	57.0	0.0	2.0	0.0	0.0	0.0	0.0	* 0.0	2.0	20.0
26	* 0.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	35.0
27	* 13.0	1.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	6.0	0.0
28	* 26.0	0.0	5.0	5.0	0.0	0.0	0.0	0.0	3.0	* 0.0	11.0	0.0
29	* 4.0		7.0	0.0	22.0	0.0	0.0	0.0	0.0	* 0.0	4.0	0.0
30	* 22.0		1.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	41.0	0.0
31	* 29.0		7.0		0.0		0.0	0.0		* 0.0		0.0
Max.	* 110.0	50.0	82.0	51.0	47.0	32.0	0.0	4.0	4.0	* 20.0	100.0	79.0
Total	* 623.5	146.0	499.0	300.0	123.0	117.0	0.0	4.0	7.0	* 36.0	344.0	457.0

Annual : \* 2656.5      Max. : \* 110.0

Year : 1994 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.0	7.0	24.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0	15.0
2	0.0	11.0	20.0	17.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	9.0
3	7.0	4.0	12.0	51.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
4	10.0	14.0	66.0	39.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	2.0
5	0.0	39.0	28.0	0.0	21.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	10.0
6	4.0	16.0	19.0	0.0	10.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0	16.0
7	24.0	0.0	42.0	0.0	0.0	* 2.0	* 0.0	* 0.0	* 0.0	0.0	0.0	7.0
8	14.0	0.0	28.0	1.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	1.0
9	36.0	10.0	12.0	30.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
10	5.0	21.0	26.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	11.0
11	15.0	12.0	49.0	0.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	11.0
12	8.0	4.0	36.0	0.0	7.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	9.0
13	0.0	33.0	6.0	13.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	43.0
14	23.0	29.0	11.0	31.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0	3.0
15	0.0	13.0	5.0	6.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.0	9.0	53.0
16	43.0	9.0	11.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	14.0	20.0
17	43.0	4.0	0.0	5.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	39.0	27.0
18	11.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	7.0	0.0
19	35.0	94.0	42.0	7.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	9.0	0.0
20	4.0	0.0	46.0	1.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0	0.0
21	3.0	0.0	0.0	7.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0	0.0
22	0.0	6.0	3.0	1.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	1.0
23	25.0	6.0	33.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
24	6.0	21.0	91.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
25	3.0	2.0	29.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
26	1.0	19.0	61.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	6.0	6.0	0.0
27	13.0	37.0	41.0	18.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0	0.0
28	11.0	27.0	8.0	9.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	15.0	0.0
29	47.0		6.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	5.0	0.0
30	75.0		1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
31	0.0		7.0		0.0		* 0.0	* 0.0		0.0		5.0
Max.	75.0	94.0	91.0	51.0	21.0	* 2.0	* 0.0	* 0.0	* 0.0	6.0	39.0	53.0
Total	471.0	438.0	763.0	245.0	41.0	* 2.0	* 0.0	* 0.0	* 0.0	11.0	131.0	243.0

Annual : \* 2345.0      Max. : \* 94.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1995 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.0	102.0	10.0	0.0	6.0	50.0	0.0	0.0	0.0	0.0	66.0	5.0
2	21.0	25.0	85.0	32.0	86.0	70.0	0.0	0.0	0.0	0.0	0.0	1.0
3	50.0	24.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	9.0
4	15.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	10.0	81.0
5	7.0	2.0	11.0	1.0	22.0	0.0	2.0	0.0	0.0	1.0	3.0	73.0
6	17.0	45.0	0.0	23.0	1.0	0.0	1.0	0.0	0.0	0.0	3.0	31.0
7	38.0	4.0	12.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
8	24.0	6.0	12.0	0.0	5.0	9.0	0.0	0.0	0.0	0.0	50.0	26.0
9	3.0	13.0	3.0	23.0	5.0	2.0	4.0	6.0	0.0	0.0	5.0	8.0
10	22.0	4.0	0.0	0.0	0.0	0.0	45.0	3.0	0.0	4.0	0.0	7.0
11	29.0	6.0	1.0	0.0	1.0	11.0	2.0	0.0	0.0	1.0	3.0	4.0
12	12.0	85.0	0.0	0.0	0.0	23.0	0.0	0.0	0.0	3.0	1.0	29.0
13	39.0	5.0	9.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	11.0	23.0
14	1.0	83.0	53.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	2.0	5.0
15	0.0	0.0	3.0	9.0	0.0	14.0	0.0	0.0	0.0	15.0	42.0	0.0
16	2.0	22.0	27.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	73.0	18.0
17	4.0	2.0	42.0	24.0	2.0	0.0	0.0	0.0	0.0	18.0	24.0	3.0
18	0.0	0.0	14.0	12.0	6.0	0.0	0.0	0.0	0.0	0.0	84.0	0.0
19	9.0	13.0	77.0	0.0	2.0	33.0	0.0	0.0	0.0	37.0	32.0	0.0
20	38.0	35.0	12.0	0.0	0.0	14.0	2.0	0.0	6.0	3.0	0.0	0.0
21	24.0	26.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	7.0	33.0	1.0
22	57.0	0.0	17.0	0.0	0.0	14.0	0.0	0.0	0.0	54.0	0.0	4.0
23	0.0	3.0	12.0	0.0	0.0	3.0	0.0	0.0	0.0	1.0	3.0	3.0
24	9.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	47.0	14.0
25	37.0	36.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	31.0	3.0	0.0
26	7.0	17.0	0.0	1.0	0.0	10.0	0.0	0.0	0.0	1.0	15.0	1.0
27	59.0	166.0	11.0	0.0	0.0	4.0	0.0	0.0	19.0	1.0	2.0	2.0
28	0.0	51.0	0.0	3.0	0.0	4.0	0.0	0.0	1.0	5.0	7.0	8.0
29	21.0		13.0	2.0	0.0	22.0	0.0	0.0	0.0	0.0	3.0	0.0
30	1.0		26.0	19.0	0.0	6.0	0.0	0.0	24.0	0.0	81.0	0.0
31	3.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	59.0	166.0	85.0	32.0	86.0	70.0	45.0	6.0	24.0	54.0	84.0	81.0
Total	550.0	816.0	485.0	152.0	159.0	311.0	56.0	9.0	50.0	202.0	606.0	382.0

Annual : 3778                      Max. : 166.0

Year : 1996 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	15.0	9.0	2.0	4.0	0.0	0.0	4.0	0.0	0.0	23.0	6.0	5.0
2	18.0	2.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	5.0
3	3.0	26.0	8.0	3.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	11.0
4	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.0	11.0	0.0
5	3.0	7.0	12.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	8.0
6	22.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.0	22.0
7	0.0	60.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	3.0
8	37.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	34.0	0.0
9	15.0	95.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	71.0	22.0
10	0.0	1.0	0.0	0.0	0.0	2.0	0.0	41.0	0.0	10.0	19.0	97.0
11	2.0	1.0	5.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	15.0
12	25.0	87.0	4.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
13	65.0	62.0	6.0	3.0	0.0	12.0	0.0	10.0	0.0	0.0	1.0	58.0
14	31.0	4.0	21.0	6.0	0.0	0.0	19.0	0.0	0.0	20.0	4.0	7.0
15	0.0	6.0	39.0	67.0	0.0	0.0	0.0	0.0	0.0	11.0	1.0	3.0
16	6.0	4.0	18.0	42.0	0.0	1.0	0.0	0.0	0.0	0.0	10.0	0.0
17	45.0	20.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	2.0
18	18.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	30.0	2.0	9.0
19	1.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	27.0	11.0	0.0
20	108.0	24.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0	20.0	11.0	0.0
21	9.0	30.0	3.0	1.0	10.0	0.0	0.0	0.0	3.0	5.0	8.0	0.0
22	20.0	2.0	0.0	18.0	0.0	0.0	0.0	0.0	2.0	6.0	46.0	0.0
23	0.0	5.0	11.0	2.0	3.0	0.0	0.0	0.0	14.0	6.0	44.0	0.0
24	8.0	29.0	51.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	1.0	8.0	11.0	0.0	0.0	20.0	0.0	0.0	0.0	5.0	15.0	0.0
26	8.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	2.0
27	47.0	2.0	0.0	0.0	22.0	0.0	0.0	19.0	0.0	30.0	0.0	17.0
28	6.0	0.0	0.0	0.0	1.0	0.0	0.0	10.0	0.0	0.0	0.0	5.0
29	6.0	18.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	6.0	0.0	1.0
30	7.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	15.0
31	4.0		0.0		3.0		0.0	0.0		26.0		3.0
Max.	108.0	95.0	70.0	67.0	22.0	20.0	19.0	41.0	14.0	50.0	71.0	97.0
Total	530.0	558.0	262.0	202.0	48.0	35.0	23.0	81.0	21.0	313.0	511.0	325.0

Annual : 2909                      Max. : 108.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1997 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	36.0	0.0	1.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
2	64.0	104.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
3	0.0	35.0	8.0	9.0	0.0	0.0	6.0	2.0	0.0	0.0	0.0	6.0
4	0.0	34.0	5.0	0.0	0.0	0.0	1.0	0.0	0.0	8.0	0.0	2.0
5	17.0	38.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	2.0	38.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
7	0.0	8.0	3.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	73.0	13.0	0.0	10.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0
9	9.0	61.0	0.0	12.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	5.0
10	41.0	0.0	0.0	5.0	17.0	0.0	0.0	0.0	0.0	0.0	32.0	4.0
11	19.0	0.0	66.8	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
12	1.0	3.0	0.0	12.0	1.0	6.0	0.0	0.0	0.0	0.0	4.0	58.0
13	0.0	34.0	0.0	9.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	14.0
14	57.0	8.0	0.0	32.0	34.0	0.0	0.0	0.0	0.0	0.0	1.0	10.0
15	51.0	19.0	0.0	37.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0
16	13.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
17	27.0	0.0	1.0	19.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	41.0
18	14.0	2.0	11.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	32.0	38.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
20	1.0	0.0	10.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
21	2.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	47.0
22	0.0	55.0	9.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
23	7.0	19.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
24	36.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
25	17.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	3.0	21.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	8.0	0.0	13.0
27	1.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0
28	1.0	55.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
29	13.0		11.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	8.0	1.0
30	0.0		10.0	13.0	4.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0
31	0.0		1.0		0.0		0.0	0.0		0.0		55.0
Max.	73.0	104.0	66.8	55.0	35.0	6.0	6.0	2.0	0.0	15.0	48.0	70.0
Total	537.0	610.0	193.8	309.0	115.0	10.0	7.0	2.0	0.0	31.0	114.0	445.0

Annual : 2374 Max. : 104.0

Year : 1998 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.0	15.0	22.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	7.0
2	16.0	0.0	20.0	32.0	15.0	2.0	0.0	0.0	0.0	0.0	9.0	2.0
3	0.0	1.0	79.0	41.0	10.0	0.0	0.0	0.0	0.0	0.0	6.0	1.0
4	0.0	9.0	8.0	8.0	7.0	17.0	0.0	1.0	0.0	0.0	0.0	8.0
5	0.0	1.0	9.0	1.0	14.0	2.0	0.0	1.0	0.0	0.0	7.0	6.0
6	20.0	0.0	11.0	2.0	12.0	42.0	5.0	0.0	0.0	19.0	47.0	0.0
7	19.0	34.0	1.0	6.0	0.0	2.0	10.0	0.0	0.0	48.0	4.0	0.0
8	40.0	23.0	0.0	36.0	1.0	0.0	8.0	0.0	0.0	11.0	8.0	0.0
9	16.0	55.0	17.0	1.0	14.0	0.0	0.0	0.0	0.0	4.0	16.0	0.0
10	75.0	78.0	18.0	2.0	0.0	4.0	0.0	0.0	4.0	3.0	10.0	0.0
11	0.0	17.0	13.0	15.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	0.0
12	0.0	10.0	24.0	16.0	15.0	0.0	46.0	0.0	0.0	8.0	8.0	0.0
13	14.0	0.0	1.0	3.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	7.0
14	38.0	0.0	0.0	5.0	0.0	0.0	5.0	1.0	0.0	4.0	17.0	0.0
15	3.0	4.0	39.0	18.0	4.0	6.0	0.0	0.0	0.0	0.0	8.0	42.0
16	4.0	50.0	51.0	3.0	3.0	48.0	3.0	0.0	0.0	1.0	46.0	73.0
17	3.0	29.0	3.0	0.0	3.0	3.0	4.0	0.0	0.0	4.0	47.0	51.0
18	20.0	14.0	13.0	6.0	4.0	4.0	0.0	0.0	0.0	0.0	18.0	7.0
19	0.0	36.0	9.0	27.0	0.0	34.0	1.0	0.0	3.0	10.0	5.0	69.0
20	36.0	16.0	25.0	1.0	0.0	2.0	0.0	0.0	6.0	2.0	15.0	5.0
21	9.0	0.0	0.0	10.0	0.0	4.0	0.0	0.0	0.0	1.0	0.0	35.0
22	0.0	0.0	2.0	1.0	0.0	24.0	0.0	0.0	0.0	22.0	0.0	2.0
23	1.0	28.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	29.0
24	0.0	1.0	33.0	2.0	0.0	5.0	0.0	0.0	72.0	3.0	0.0	0.0
25	3.0	9.0	1.0	30.0	1.0	14.0	0.0	0.0	24.0	12.0	0.0	1.0
26	26.0	0.0	26.0	8.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.0
27	11.0	4.0	0.0	33.0	20.0	0.0	2.0	0.0	34.0	2.0	0.0	17.0
28	46.0	1.0	20.0	2.0	0.0	5.0	17.0	0.0	1.0	0.0	0.0	17.0
29	0.0		7.0	1.0	0.0	14.0	7.0	0.0	4.0	2.0	52.0	7.0
30	42.0		8.0	6.0	9.0	29.0	2.0	0.0	0.0	30.0	0.0	15.0
31	2.0		0.0		6.0		0.0	0.0		36.0		16.0
Max.	75.0	78.0	79.0	41.0	20.0	48.0	46.0	1.0	72.0	48.0	52.0	73.0
Total	447.0	435.0	460.0	355.0	138.0	261.0	126.0	3.0	148.0	226.0	354.0	425.0

Annual : 3378 Max. : 79.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 1999 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	11.0	36.0	22.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	8.0	7.0
2	3.0	3.0	5.0	12.0	60.0	0.0	0.0	0.0	0.0	0.0	14.0	56.0
3	76.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	30.0
4	11.0	16.0	0.0	11.0	12.0	5.0	0.0	0.0	0.0	0.0	92.0	73.0
5	23.0	48.0	2.0	9.0	72.0	3.0	6.0	0.0	0.0	0.0	0.0	14.0
6	3.0	17.0	0.0	24.0	0.0	0.0	4.0	0.0	0.0	0.0	4.0	11.0
7	10.0	7.0	55.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	11.0
8	21.0	0.0	58.0	3.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	40.0
9	68.0	3.0	20.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	41.0
10	14.0	108.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	29.0
11	34.0	18.0	5.0	6.0	0.0	3.0	0.0	2.0	0.0	24.0	4.0	74.0
12	8.0	6.0	0.0	38.0	3.0	0.0	0.0	56.0	0.0	34.0	78.0	1.0
13	0.0	0.0	2.0	3.0	5.0	1.0	0.0	0.0	0.0	46.0	0.0	15.0
14	0.0	34.0	76.0	17.0	16.0	13.0	0.0	0.0	0.0	1.0	0.0	10.0
15	1.0	0.0	10.0	3.0	0.0	0.0	0.0	0.0	0.0	17.0	78.0	1.0
16	1.0	4.0	74.0	8.0	0.0	0.0	0.0	0.0	0.0	9.0	45.0	0.0
17	0.0	8.0	37.0	61.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0
18	15.0	0.0	13.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	82.0	3.0
19	0.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	5.0
20	64.0	3.0	10.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0
21	0.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	14.0	36.0
22	52.0	37.0	15.0	0.0	0.0	17.0	0.0	0.0	0.0	12.0	9.0	10.0
23	6.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	33.0	11.0
24	58.0	54.0	14.0	7.0	0.0	0.0	0.0	15.0	0.0	26.0	28.0	81.0
25	53.0	0.0	9.0	0.0	0.0	0.0	6.0	0.0	0.0	10.0	68.0	20.0
26	49.0	2.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	22.0	106.0
27	69.0	13.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	6.0	27.0
28	10.0	59.0	3.0	9.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	15.0
29	8.0		0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	8.0
30	25.0		0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
31	30.0		0.0		0.0		0.0	0.0		19.0		1.0
<b>Max.</b>	76.0	108.0	76.0	61.0	72.0	17.0	6.0	56.0	0.0	46.0	92.0	106.0
<b>Total</b>	723.0	533.0	464.0	239.0	175.0	45.0	16.0	73.0	0.0	238.0	751.0	750.0

Annual : 4007      Max. : 108.0

Year : 2000 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.0	10.0	0.0	31.0	12.0	0.0	0.0	0.0	0.0	0.0	31.0	7.0
2	0.0	39.0	15.0	40.0	4.0	0.0	0.0	0.0	0.0	0.0	2.0	43.0
3	19.0	0.0	49.0	76.0	1.0	3.0	0.0	0.0	10.0	0.0	5.0	0.0
4	1.0	54.0	22.0	55.0	34.0	4.0	0.0	0.0	0.0	0.0	2.0	0.0
5	7.0	31.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
6	8.0	0.0	21.0	10.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	11.0	27.0	17.0	86.0	11.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
8	2.0	45.0	6.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
9	0.0	16.0	19.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0
10	16.0	61.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	0.0
11	7.0	1.0	0.0	102.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	31.0
12	1.0	0.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	29.0	22.0
13	10.0	10.0	23.0	31.0	0.0	0.0	0.0	0.0	0.0	12.0	44.0	62.0
14	0.0	2.0	18.0	127.0	0.0	0.0	0.0	0.0	0.0	24.0	53.0	19.0
15	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	5.0	110.0	0.0
16	2.0	0.0	0.0	10.0	6.0	0.0	0.0	0.0	0.0	10.0	1.0	0.0
17	3.0	0.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
18	29.0	0.0	6.0	10.0	3.0	2.0	0.0	0.0	0.0	2.0	45.0	22.0
19	8.0	2.0	32.0	1.0	16.0	0.0	0.0	0.0	0.0	37.0	9.0	0.0
20	30.0	34.0	3.0	10.0	1.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
21	63.0	30.0	45.0	10.0	0.0	2.0	0.0	0.0	0.0	0.0	16.0	0.0
22	4.0	0.0	65.0	1.0	67.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
23	13.0	24.0	1.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	1.0
24	9.0	0.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	58.0	22.0	5.0	4.0	0.0	3.0	0.0	0.0	0.0	31.0	0.0
26	0.0	2.0	11.0	45.0	0.0	0.0	0.0	0.0	0.0	101.0	4.0	0.0
27	3.0	9.0	33.0	53.0	0.0	0.0	0.0	0.0	0.0	32.0	14.0	0.0
28	32.0	0.0	51.0	18.0	11.0	0.0	0.0	34.0	0.0	11.0	0.0	0.0
29	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
30	74.0		38.0	0.0	1.0	0.0	0.0	55.0	0.0	36.0	2.0	0.0
31	2.0		0.0		0.0		0.0	4.0		90.0		0.0
<b>Max.</b>	74.0	61.0	65.0	127.0	67.0	4.0	3.0	55.0	10.0	101.0	110.0	62.0
<b>Total</b>	358.0	455.0	568.0	801.0	202.0	11.0	3.0	93.0	10.0	362.0	506.0	207.0

Annual : 3576      Max. : 127.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 2001 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	23.0	6.0	2.0	2.0	9.0	0.0	0.0	16.0	0.0	0.0	8.0
2	0.0	2.0	2.0	20.0	22.0	6.0	0.0	0.0	0.0	0.0	55.0	29.0
3	9.0	14.0	17.0	31.0	67.0	8.0	0.0	0.0	0.0	3.0	0.0	35.0
4	52.0	26.0	9.0	34.0	0.0	3.0	0.0	0.0	0.0	31.0	1.0	19.0
5	76.0	19.0	49.0	7.0	0.0	2.0	0.0	0.0	26.0	35.0	6.0	0.0
6	10.0	56.0	11.0	0.0	0.0	46.0	0.0	0.0	0.0	3.0	1.0	7.0
7	12.0	18.0	21.0	50.0	0.0	1.0	0.0	0.0	0.0	13.0	4.0	6.0
8	23.0	39.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	37.0	33.0	1.0
9	29.0	31.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	15.0	18.0	0.0
10	89.0	53.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	0.0
11	5.0	20.0	29.0	1.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	5.0	2.0	53.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	2.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	19.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0
15	0.0	21.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	45.0	16.0	0.0
16	3.0	0.0	21.0	90.0	0.0	0.0	0.0	0.0	0.0	15.0	35.0	39.0
17	16.0	0.0	1.0	54.0	0.0	0.0	1.0	0.0	0.0	39.0	7.0	45.0
18	6.0	11.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0
19	30.0	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	7.0
20	36.0	31.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0	29.0	56.0	0.0
21	2.0	3.0	0.0	0.0	0.0	0.0	22.0	0.0	0.0	69.0	25.0	0.0
22	96.0	0.0	6.0	0.0	0.0	0.0	22.0	0.0	0.0	39.0	0.0	0.0
23	1.0	0.0	56.0	0.0	0.0	0.0	25.0	0.0	0.0	24.0	5.0	0.0
24	3.0	0.0	11.0	15.0	0.0	1.0	50.0	0.0	0.0	35.0	4.0	37.0
25	0.0	0.0	37.0	0.0	0.0	0.0	1.0	0.0	0.0	4.0	5.0	0.0
26	23.0	0.0	23.0	0.0	0.0	3.0	0.0	0.0	0.0	19.0	70.0	0.0
27	0.0	8.0	6.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	21.0	0.0
28	30.0	45.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
29	42.0		0.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	0.0	0.0
30	25.0		0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	4.0	0.0
31	38.0		2.0		0.0		0.0			0.0		0.0
<b>Max.</b>	96.0	56.0	56.0	90.0	67.0	46.0	50.0	0.0	32.0	69.0	70.0	45.0
<b>Total</b>	661.0	447.0	413.0	330.0	105.0	79.0	132.0	0.0	78.0	458.0	418.0	234.0

Annual : 3355                      Max. : 96.0

Year : 2002 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	1.0	129.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
2	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	16.0	57.0
3	12.0	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	7.0	72.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
5	8.0	6.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	24.0
6	13.0	24.0	95.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0
7	49.0	17.0	35.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	9.0
8	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
9	0.0	10.0	7.0	0.0	9.0	0.0	0.0	3.0	0.0	0.0	0.0	1.0
10	0.0	66.0	6.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	5.0
11	7.0	13.0	8.0	10.0	9.0	0.0	0.0	0.0	0.0	0.0	11.0	19.0
12	3.0	0.0	73.0	40.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0
13	0.0	2.0	3.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
14	18.0	22.0	0.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	22.0
15	34.0	4.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	53.0
16	5.0	3.0	8.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	17.0
17	23.0	22.0	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	1.0
18	39.0	29.0	0.0	52.0	0.0	0.0	3.0	0.0	0.0	0.0	9.0	0.0
19	5.0	4.0	3.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
20	46.0	50.0	11.0	59.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
21	16.0	4.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	25.0	1.0	0.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
23	62.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	5.0
24	58.0	18.0	5.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	52.0	7.0
25	0.0	0.0	35.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	7.0
26	14.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0
27	31.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0
28	0.0	23.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	25.0
29	3.0		6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
30	32.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	5.0
31	15.0		16.0		0.0		0.0			0.0		9.0
<b>Max.</b>	62.0	72.0	95.0	129.0	26.0	10.0	3.0	3.0	0.0	9.0	52.0	57.0
<b>Total</b>	525.0	396.0	396.0	606.0	49.0	10.0	3.0	3.0	0.0	9.0	248.0	401.0

Annual : 2646                      Max. : 129.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 2003 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	51.0	44.0	0.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
2	23.0	45.0	0.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	3.0	8.0
3	8.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	4.0
4	106.0	7.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	12.0
5	31.0	5.0	55.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	6.0
6	1.0	0.0	10.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
7	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
8	1.0	1.0	14.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	5.0
9	1.0	19.0	25.0	23.0	10.0	0.0	0.0	0.0	0.0	2.0	0.0	13.0
10	4.0	25.0	23.0	18.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0
11	0.0	0.0	0.0	1.0	5.0	0.0	0.0	0.0	0.0	20.0	0.0	21.0
12	1.0	72.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	16.0	11.0	17.0	0.0	0.0	41.0	0.0	0.0	0.0	0.0	6.0	4.0
14	7.0	9.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	6.0	6.0
15	0.0	25.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	5.0	4.0	18.0	0.0	15.0	0.0	0.0	0.0	1.0	0.0	98.0	0.0
17	0.0	57.0	24.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0
18	0.0	50.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	13.0
19	0.0	44.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	19.0	1.0
20	0.0	14.0	23.0	0.0	2.0	0.0	0.0	0.0	0.0	41.0	26.0	0.0
21	15.0	25.0	9.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	1.0	21.0
22	73.0	10.0	28.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	23.0	2.0
23	13.0	0.0	5.0	10.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	7.0
24	9.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	13.0
25	7.0	31.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	17.0	20.0
26	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	5.0	7.0
27	20.0	32.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
28	2.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
29	33.0		3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
30	3.0		0.0	3.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	29.0
31	30.0		0.0		0.0		0.0	0.0		17.0		11.0
<b>Max.</b>	106.0	72.0	55.0	23.0	19.0	41.0	0.0	0.0	2.0	21.0	98.0	75.0
<b>Total</b>	476.0	605.0	321.0	61.0	84.0	71.0	0.0	0.0	4.0	127.0	256.0	311.0

Annual : 2316                      Max. : 106.0

Year : 2004 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0
2	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0
3	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	10.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	68.0
7	13.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
11	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
14	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	31.0
15	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0
18	21.0	0.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	43.0
19	0.0	0.0	0.0	0.0	66.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
21	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
22	44.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	39.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
24	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0
25	8.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0
26	81.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	62.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	89.0
28	6.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
29	4.0		0.0	0.0	17.0	0.0	0.0	0.0	0.0	3.0	0.0	36.0
30	59.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	42.0	0.0
31	3.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	81.0	0.0	0.0	0.0	66.0	15.0	0.0	0.0	8.0	4.0	42.0	89.0
<b>Total</b>	569.0	0.0	0.0	0.0	229.0	15.0	0.0	0.0	11.0	7.0	42.0	565.0

Annual : 1438                      Max. : 89.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT TAWANGMANGU

Station No. : 86  
 Basin : Upper Solo  
 Elevation : 1,000 m

Year : 2005 ( unit : mm )

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.0	0.0	12.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	32.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
3	0.0	0.0	54.0	26.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	71.0
4	0.0	0.0	44.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	16.0	76.0	4.0	0.0	5.0	0.0	0.0	0.0	0.0	1.0
6	0.0	0.0	49.0	5.0	4.0	1.0	26.0	0.0	0.0	0.0	0.0	0.0
7	171.0	2.0	5.0	1.0	20.0	0.0	39.0	0.0	0.0	0.0	0.0	0.0
8	11.0	1.0	5.0	0.0	0.0	0.0	12.0	0.0	24.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	26.0	33.0	0.0	0.0	0.0	0.0	0.0
10	0.0	93.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	39.0	1.0	0.0	0.0	0.0	10.0	0.0	0.0	25.0	0.0	0.0
13	0.0	41.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
14	46.0	8.0	0.0	24.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	31.0	30.0	51.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
16	4.0	16.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	9.0	16.0	17.0	0.0	0.0	2.0	4.0	0.0	0.0	11.0	0.0	0.0
18	11.0	1.0	0.0	14.0	0.0	0.0	0.0	3.0	0.0	14.0	5.0	0.0
19	24.0	4.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	46.0	5.0	0.0
20	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	1.0	1.0	0.0
21	0.0	7.0	4.0	6.0	0.0	5.0	0.0	0.0	22.0	0.0	4.0	0.0
22	115.0	3.0	43.0	1.0	0.0	44.0	0.0	0.0	13.0	0.0	0.0	0.0
23	3.0	23.0	9.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	42.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	12.0	6.0	2.0	13.0	17.0	0.0	0.0	0.0	2.0	2.0	0.0
26	9.0	58.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	3.0	0.0
27	56.0	7.0	11.0	0.0	0.0	0.0	0.0	0.0	3.0	22.0	17.0	0.0
28	66.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0
29	69.0		4.0	0.0	0.0	22.0	0.0	0.0	19.0	0.0	0.0	0.0
30	0.0		12.0	47.0	2.0	2.0	0.0	0.0	35.0	0.0	22.0	0.0
31	23.0		13.0		0.0		0.0	0.0		1.0		
<b>Max.</b>	171.0	93.0	85.0	76.0	20.0	44.0	39.0	6.0	35.0	46.0	71.0	
<b>Total</b>	625.0	422.0	500.0	298.0	48.0	146.0	129.0	9.0	129.0	168.0	150.0	

Annual : 2624                      Max. : 171.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1975 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	*0.0	*5.0	*0.0	*3.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*36.0
2	*0.0	*21.0	*0.0	*13.0	*0.0	*0.0	*0.0	*0.0	*0.0	*30.0	*0.0	*7.0
3	*0.0	*25.0	*0.0	*6.0	*0.0	*0.0	*0.0	*0.0	*0.0	*29.0	*0.0	*0.0
4	*0.0	*16.0	*23.0	*17.0	*0.0	*0.0	*0.0	*0.0	*0.0	*29.0	*0.0	*0.0
5	*0.0	*53.0	*32.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*6.0	*0.0	*32.0
6	*0.0	*26.0	*24.0	*0.0	*32.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
7	*0.0	*32.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*34.0	*40.0	*18.0
8	*0.0	*0.0	*11.0	*10.0	*0.0	*0.0	*0.0	*0.0	*8.0	*0.0	*8.0	*84.0
9	*0.0	*0.0	*0.0	*25.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*93.0
10	*0.0	*34.0	*32.0	*6.0	*0.0	*0.0	*0.0	*0.0	*0.0	*4.0	*0.0	*0.0
11	*0.0	*7.0	*11.0	*0.0	*0.0	*0.0	*0.0	*0.0	*58.0	*0.0	*27.0	*0.0
12	*0.0	*0.0	*31.0	*3.0	*0.0	*0.0	*0.0	*0.0	*50.0	*0.0	*3.0	*57.0
13	*0.0	*0.0	*23.0	*0.0	*6.0	*0.0	*0.0	*0.0	*16.0	*18.0	*0.0	*87.0
14	*0.0	*23.0	*11.0	*9.0	*2.0	*0.0	*0.0	*0.0	*7.0	*16.0	*25.0	*59.0
15	*21.0	*0.0	*0.0	*0.0	*5.0	*0.0	*0.0	*0.0	*8.0	*0.0	*0.0	*37.0
16	*0.0	*45.0	*0.0	*48.0	*9.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*28.0
17	*6.0	*0.0	*31.0	*0.0	*25.0	*0.0	*0.0	*0.0	*0.0	*36.0	*0.0	*6.0
18	*0.0	*0.0	*0.0	*6.0	*5.0	*0.0	*0.0	*0.0	*0.0	*3.0	*15.0	*4.0
19	*0.0	*0.0	*0.0	*6.0	*1.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
20	*37.0	*0.0	*10.0	*45.0	*0.0	*39.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
21	*19.0	*0.0	*53.0	*31.0	*0.0	*0.0	*0.0	*0.0	*0.0	*14.0	*0.0	*0.0
22	*0.0	*0.0	*26.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
23	*0.0	*0.0	*10.0	*27.0	*0.0	*0.0	*0.0	*0.0	*0.0	*26.0	*0.0	*0.0
24	*0.0	*0.0	*6.0	*26.0	*4.0	*0.0	*0.0	*0.0	*0.0	*55.0	*0.0	*0.0
25	*29.0	*6.0	*5.0	*3.0	*0.0	*0.0	*0.0	*0.0	*0.0	*10.0	*8.0	*18.0
26	*0.0	*31.0	*16.0	*0.0	*6.0	*0.0	*0.0	*0.0	*0.0	*0.0	*13.0	*0.0
27	*12.0	*0.0	*33.0	*5.0	*24.0	*0.0	*0.0	*0.0	*0.0	*13.0	*0.0	*19.0
28	*0.0	*12.0	*0.0	*8.0	*0.0	*0.0	*0.0	*0.0	*0.0	*6.0	*0.0	*0.0
29	*16.0		*15.0	*4.0	*0.0	*5.0	*0.0	*0.0	*16.0	*14.0	*34.0	*3.0
30	*0.0		*17.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*27.0	*0.0	*0.0
31	*16.0		*91.0		*0.0		*0.0	*0.0		*4.0		*0.0
Max.	*37.0	*53.0	*91.0	*48.0	*32.0	*39.0	*0.0	*0.0	*58.0	*55.0	*40.0	*93.0
Total	*156.0	*336.0	*511.0	*301.0	*119.0	*44.0	*0.0	*0.0	*163.0	*345.0	*173.0	*588.0
Annual :	*2736.0				Max. :		*93.0					

Year : 1976 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	59.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	60.0	*63.0
2	0.0	1.0	8.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	50.0	*0.0
3	0.0	1.0	9.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
4	0.0	0.0	3.0	20.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
5	0.0	1.0	0.0	2.0	*0.0	0.0	7.0	*0.0	*0.0	0.0	0.0	*0.0
6	31.0	0.0	0.0	6.0	*30.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
7	72.0	0.0	0.0	0.0	*4.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
8	9.0	0.0	0.0	0.0	*27.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
9	15.0	4.0	12.0	0.0	*2.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
10	7.0	1.0	44.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*22.0
11	9.0	29.0	24.0	0.0	*27.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*18.0
12	32.0	11.0	0.0	0.0	*0.0	0.6	0.0	*0.0	*0.0	0.0	0.0	*0.0
13	16.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
14	2.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	9.0	*0.0
15	3.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	5.0	4.0	*0.0
16	5.0	0.0	28.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	69.0	0.0	*0.0
17	32.0	0.0	4.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
18	3.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
19	8.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
20	8.0	0.0	35.0	8.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	44.0	*0.0
21	0.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	59.0	*0.0
22	2.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	44.0	*0.0
23	1.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	13.0	*0.0
24	12.0	36.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
25	0.0	0.0	14.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	60.0	*0.0
26	23.0	9.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*1.7	0.0	37.0	*0.0
27	0.0	0.0	6.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	75.0	39.0	*0.0
28	0.0	0.0	0.0	0.0	*0.0	0.0	0.0	*3.0	*0.0	0.0	3.0	*0.0
29	0.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*5.7	25.0	0.0	*0.0
30	55.0		10.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	11.0	0.0	*29.0
31	13.0		12.0		*0.0		0.0	*0.0		0.0		*0.0
Max.	72.0	36.0	59.0	20.0	*30.0	0.6	7.0	*3.0	*5.7	75.0	60.0	*63.0
Total	358.0	93.0	268.0	36.0	*90.0	0.6	7.0	*3.0	*7.3	185.0	422.0	*132.0
Annual :	*1601.9				Max. :		*75.0					

\*\* : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1977 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	31.0
2	* 6.0	0.0	6.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	45.0
3	* 0.0	0.0	0.0	0.0	0.0	4.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
4	* 0.0	0.0	9.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	* 20.0	0.0	0.0	0.0	0.0	39.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
6	* 0.0	0.0	15.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	30.0
7	* 0.0	40.0	0.0	65.0	0.0	2.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	22.0
8	0.0	0.0	16.0	37.0	0.0	22.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
9	* 0.0	23.0	16.0	0.0	0.0	66.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
10	* 0.0	0.0	0.0	10.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
11	* 0.0	9.0	0.0	0.0	23.0	59.0	* 0.0	* 0.0	* 0.0	* 0.0	11.0	29.0
12	* 0.0	0.0	48.0	0.0	21.0	5.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	36.0
13	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
14	* 0.0	0.0	0.0	0.0	0.0	4.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
15	* 0.0	15.0	0.0	0.0	9.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
16	* 0.0	13.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	24.0
17	* 0.0	5.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
18	* 0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	* 62.0	3.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
20	* 39.0	20.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
21	* 4.0	2.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	44.0	0.0
22	* 16.0	15.0	0.0	57.0	0.0	22.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0
23	* 0.0	14.0	47.0	24.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	107.0	0.0
24	* 86.0	0.0	7.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	12.0	0.0
25	* 0.0	0.0	34.0	15.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	24.0
26	* 0.0	0.0	5.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	20.0	0.0
27	* 0.0	54.0	0.0	0.0	10.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0
28	* 14.0	16.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
29	* 0.0		0.0	0.0	43.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
30	* 0.0		0.0	49.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
31	* 10.0		23.0		0.0		* 0.0	* 0.0		* 0.0		10.0
Max.	* 86.0	54.0	48.0	65.0	43.0	66.0	* 0.0	* 0.0	* 0.0	* 0.0	107.0	45.0
Total	* 257.0	229.0	226.0	257.0	106.0	223.0	* 0.0	* 0.0	* 0.0	* 0.0	194.0	256.0

Annual : \* 1748.0      Max. : \* 107.0

Year : 1978 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	29.0	0.0	0.0	0.0	14.0	14.0	29.0	0.0	0.0	0.0	0.0	23.0
2	5.0	0.0	0.0	8.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	12.0
3	0.0	18.0	0.0	8.0	0.0	0.0	19.0	0.0	0.0	0.0	0.0	31.0
4	21.0	0.0	24.0	0.0	0.0	0.0	7.0	17.0	21.0	0.0	0.0	0.0
5	15.0	0.0	17.0	0.0	24.0	9.0	10.0	9.0	0.0	0.0	0.0	0.0
6	15.0	18.0	0.0	0.0	0.0	15.0	37.0	0.0	0.0	0.0	40.0	0.0
7	40.0	3.0	32.0	0.0	0.0	10.0	5.0	0.0	0.0	0.0	12.0	10.0
8	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	37.0	0.0
9	11.0	0.0	0.0	0.0	0.0	5.0	7.0	0.0	10.0	0.0	3.0	0.0
10	23.0	88.0	55.0	8.0	0.0	0.0	0.0	0.0	10.0	0.0	6.0	10.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
12	3.0	0.0	0.0	57.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
13	11.0	0.0	31.0	6.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	2.0
14	0.0	0.0	0.0	11.0	45.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0
15	13.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	4.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	0.0	25.0	9.0
18	21.0	16.0	39.0	0.0	12.0	7.0	0.0	0.0	0.0	0.0	10.0	0.0
19	28.0	0.0	0.0	6.0	0.0	3.0	0.0	0.0	0.0	16.0	25.0	8.0
20	5.0	3.0	0.0	0.0	0.0	7.0	0.0	21.0	10.0	0.0	0.0	4.0
21	0.0	27.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	17.0	24.0
22	27.0	0.0	36.0	0.0	0.0	6.0	15.0	0.0	0.0	0.0	0.0	8.0
23	0.0	43.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	2.0
24	15.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0
26	0.0	35.0	0.0	12.0	0.0	53.0	0.0	0.0	0.0	0.0	0.0	2.0
27	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	19.0
29	0.0		0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
30	33.0		14.0	0.0	0.0	90.0	0.0	0.0	0.0	4.0	0.0	17.0
31	15.0		0.0		8.0		0.0	0.0		0.0		36.0
Max.	40.0	88.0	55.0	57.0	45.0	90.0	37.0	33.0	21.0	39.0	40.0	36.0
Total	337.0	251.0	296.0	116.0	157.0	251.0	179.0	80.0	51.0	86.0	190.0	246.0

Annual : 2,240      Max. : 90.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1979 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	14.0	82.0	10.0	11.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0
2	0.0	50.0	6.0	17.0	36.0	0.0	0.0	0.0	0.0	0.0	12.0	3.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	3.0	13.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
5	0.0	0.0	0.0	0.0	77.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
6	0.0	32.0	0.0	10.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	13.0
7	0.0	0.0	32.0	26.0	7.0	0.0	0.0	1.7	0.0	0.0	5.0	0.0
8	10.0	0.0	0.0	16.0	0.0	10.0	0.0	29.4	0.0	0.0	29.0	0.0
9	0.0	18.0	0.0	0.0	30.0	4.0	0.0	0.0	0.0	0.0	9.0	0.0
10	2.0	7.0	36.0	7.0	5.0	33.0	0.0	4.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	6.0	3.0	4.5	0.0	0.0	0.0	4.0	0.0
12	15.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	1.7	0.0	4.0	0.0
13	0.0	64.0	44.0	51.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0
14	19.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0
15	8.0	28.0	46.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	104.0	19.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	3.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	9.0	12.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0
19	6.0	0.0	10.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	7.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	20.0
21	7.0	13.0	5.0	12.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
23	16.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
24	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	42.0
25	16.0	17.0	4.0	57.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
26	32.0	18.0	0.0	9.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0	27.0
27	0.0	2.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	7.0
28	0.0	6.0	13.0	0.0	0.0	0.0	0.0	0.0	1.7	3.0	0.0	0.0
29	0.0		25.0	0.0	0.0	0.0	0.0	0.0	19.2	0.0	15.0	0.0
30	0.0		0.0	7.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	7.0
31	0.0		0.0		16.0		0.0	0.0		28.0		11.0
Max.	32.0	82.0	46.0	57.0	77.0	33.0	4.5	29.4	19.2	28.0	104.0	42.0
Total	185.0	340.0	334.0	283.0	241.0	50.0	5.7	35.6	48.6	38.0	218.0	183.0

Annual : 1962 Max. : 104.0

Year : 1980 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	18.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
2	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
3	1.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	11.0
5	1.7	37.0	24.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
6	0.0	4.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
7	1.7	4.0	14.0	0.0	0.0	0.0	0.0	28.0	0.0	0.0	0.0	0.0
8	1.1	0.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0	0.0	0.0	0.0
9	41.3	8.0	2.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	59.0	0.0
10	10.7	2.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
11	9.0	0.0	0.0	65.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	3.4	16.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
13	0.6	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	13.0
14	12.4	10.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0	11.0
15	0.0	15.0	0.0	5.0	11.0	0.0	0.0	0.0	0.0	0.0	4.0	7.0
16	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
17	28.8	0.0	68.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
18	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
19	7.3	8.0	8.0	5.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
20	7.3	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
21	46.9	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
22	8.5	8.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	18.0	0.0	0.0
23	5.1	24.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	17.0
24	0.0	2.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	19.0	40.0	4.0
25	22.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.0	0.0
26	18.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	22.0	0.0
27	0.6	8.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	6.0	0.0
28	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	12.0	0.0
29	18.1	0.0	5.0	6.0	0.0	0.0	0.0	0.0	0.0	31.0	53.0	21.0
30	17.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	0.0
31	6.2		45.0		0.0		7.0	0.0		10.0		18.0
Max.	46.9	37.0	68.0	65.0	11.0	4.0	7.0	28.0	6.0	31.0	59.0	21.0
Total	292.2	210.0	183.0	241.0	23.0	4.0	10.0	58.0	9.0	102.0	437.0	155.0

Annual : 1724 Max. : 68.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1981 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	23.0	0.0	20.0	0.0	0.0	0.0	6.0	0.0	22.0	17.0	8.0
2	8.0	0.0	4.0	7.0	4.0	0.0	6.0	0.0	0.0	0.0	0.0	10.0
3	22.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	31.0	13.0	61.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
5	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
6	11.0	0.0	18.0	0.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
7	22.0	0.0	0.0	0.0	0.0	0.0	83.0	0.0	0.0	0.0	0.0	5.0
8	20.0	21.0	0.0	0.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	3.0
9	0.0	25.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
11	0.0	0.0	21.0	16.0	0.0	0.0	3.0	0.0	0.0	27.0	0.0	0.0
12	0.0	11.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	10.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
14	12.0	0.0	0.0	0.0	63.0	0.0	12.0	0.0	0.0	0.0	20.0	0.0
15	8.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	16.0
16	4.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
17	0.0	0.0	28.0	17.0	0.0	0.0	17.0	0.0	0.0	0.0	14.0	0.0
18	20.0	83.0	22.0	0.0	7.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
19	23.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	26.0	0.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0
21	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	37.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
23	0.0	17.0	10.0	17.0	0.0	8.0	0.0	0.0	0.0	0.0	27.0	8.0
24	0.0	5.0	0.0	0.0	0.0	19.0	0.0	0.0	0.0	0.0	30.0	0.0
25	8.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	8.0	18.0	58.0	0.0	0.0	0.0	0.0	0.0	56.0	21.0	6.0	11.0
27	7.0	2.0	60.0	0.0	0.0	21.0	0.0	0.0	29.0	0.0	0.0	0.0
28	25.0	13.0	7.0	0.0	0.0	5.0	0.0	0.0	18.0	11.0	32.0	0.0
29	0.0		2.0	55.0	0.0	0.0	0.0	0.0	2.0	25.0	20.0	5.0
30	10.0		0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	19.0	8.0
31	0.0		0.0		0.0		0.0			0.0		2.0
<b>Max.</b>	31.0	83.0	61.0	55.0	63.0	23.0	83.0	6.0	56.0	27.0	32.0	16.0
<b>Total</b>	255.0	344.0	320.0	196.0	142.0	83.0	161.0	6.0	123.0	106.0	203.0	121.0

Annual : 2060                      Max. : 83.0

Year : 1982 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	14.0	0.0	0.0	13.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	15.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	5.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
6	5.0	43.0	11.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
7	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
8	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	7.0
9	34.0	0.0	21.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
10	3.0	14.0	11.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	7.0
11	3.0	0.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0
12	62.0	37.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
13	20.0	3.0	0.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	7.0
14	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
15	7.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
16	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	8.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	30.0
18	0.0	5.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0	0.0	12.0
19	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	4.0
20	0.0	0.0	4.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	20.0
21	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
22	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
23	7.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	15.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
25	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	32.0	17.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.0
27	0.0	0.0	0.0	14.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	2.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.8	0.0	4.0
31	18.0		0.0		0.6		0.0			0.6		6.0
<b>Max.</b>	62.0	43.0	52.0	45.0	10.7	0.6	2.3	0.0	0.6	2.8	23.0	49.0
<b>Total</b>	252.0	186.0	122.0	246.0	20.9	0.6	2.3	0.0	1.7	3.4	67.0	238.0

Annual : 1140                      Max. : 62.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1983 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	30.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0
2	33.0	50.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
3	0.0	1.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
4	13.0	7.0	0.0	5.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	10.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	25.0	12.0	0.0	34.0	5.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
7	39.0	37.0	0.0	22.0	91.0	0.0	0.0	0.0	0.0	0.0	6.0	64.0
8	2.0	2.0	46.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0
9	8.0	32.0	0.0	3.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
10	1.0	43.0	4.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	52.0	16.0
11	27.0	22.0	8.0	6.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	9.0	0.0
13	0.0	7.0	0.0	0.0	63.0	0.0	0.0	0.0	0.0	6.0	0.0	8.0
14	43.0	7.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	9.0	4.0	0.0
15	24.0	4.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	3.0	20.0	12.0	4.0	32.0	0.0	0.0	0.0	0.0	2.0	55.0	0.0
17	0.0	3.0	20.0	27.0	19.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
18	0.0	17.0	22.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
19	52.0	21.0	26.0	8.0	0.0	0.0	2.3	0.0	0.0	5.0	0.0	0.0
20	20.0	10.0	7.0	11.0	9.0	0.0	0.0	0.0	0.0	24.0	7.0	0.0
21	0.0	10.0	18.0	1.0	19.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
22	0.0	16.0	23.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	17.0
23	0.0	0.0	18.0	2.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0
24	0.0	0.0	7.0	0.0	15.0	0.0	0.0	0.0	11.3	0.0	0.0	0.0
25	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	33.0	74.0
26	0.0	2.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	5.0	27.0
27	4.0	0.0	19.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	34.0
28	0.0	19.0	13.0	14.0	0.0	0.0	0.0	0.0	0.0	10.0	8.0	4.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	22.0
30	11.0		9.0	0.0	8.0	0.0	0.0	0.0	0.0	10.0	6.0	0.0
31	15.0		0.0		0.0		0.0	0.0		0.0		2.0
<b>Max.</b>	52.0	50.0	46.0	38.0	91.0	5.0	2.3	0.0	11.3	27.0	55.0	74.0
<b>Total</b>	320.0	387.0	264.0	243.0	339.0	5.0	2.3	0.0	11.3	147.0	286.0	381.0
<b>Annual :</b>	2386		<b>Max. :</b>		91.0							

Year : 1984 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	56.0	35.0	0.0	0.0	0.0	18.0	0.0	0.0	1.0	0.0	0.0
2	0.0	1.0	22.0	0.0	30.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
3	12.0	16.0	2.0	0.0	14.0	0.0	0.0	0.0	0.0	43.0	0.0	0.0
4	21.0	15.0	17.0	0.0	1.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0
5	26.0	41.0	1.0	8.0	31.0	0.0	0.0	0.0	19.0	0.0	0.0	1.0
6	7.0	13.0	6.0	19.0	1.0	0.0	0.0	0.0	31.0	16.0	0.0	5.0
7	0.0	4.0	3.0	5.0	0.0	0.0	0.0	0.0	18.0	30.0	0.0	6.0
8	0.0	0.0	43.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	15.0
9	48.0	1.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	8.0	39.0	14.0	30.0	0.0	22.0	0.0	0.0	3.0	0.0	0.0	0.0
11	41.0	3.0	0.0	45.0	1.0	6.0	0.0	0.0	49.0	0.0	0.0	98.0
12	34.0	31.0	1.0	30.0	0.0	1.0	0.0	0.0	0.0	0.0	31.0	2.0
13	12.0	2.0	2.0	1.0	6.0	0.0	0.0	0.0	20.0	0.0	0.0	7.0
14	6.0	0.0	3.0	5.0	35.0	0.0	0.0	0.0	16.0	3.0	0.0	1.0
15	53.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	19.0	23.0
16	5.0	3.0	53.0	5.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	2.0
17	22.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
18	0.0	1.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
19	0.0	21.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	1.0	12.0	22.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	6.0	8.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0	3.0
23	2.0	9.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
24	11.0	10.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	3.0
25	8.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	14.0	42.0
26	0.0	15.0	0.0	3.0	0.0	0.0	0.0	39.0	0.0	0.0	32.0	187.0
27	35.0	8.0	2.0	1.0	0.0	0.0	0.0	0.0	33.0	0.0	1.0	25.0
28	20.0	25.0	15.0	0.0	1.0	0.0	0.0	0.0	13.0	0.0	0.0	12.0
29	31.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	4.0
30	4.0		2.0	7.0	0.0	26.0	0.0	8.0	0.0	0.0	6.0	3.0
31	29.0		0.0		0.0		0.0	0.0		0.0		5.0
<b>Max.</b>	53.0	56.0	53.0	45.0	35.0	26.0	18.0	39.0	49.0	43.0	57.0	187.0
<b>Total</b>	442.0	359.0	286.0	194.0	136.0	55.0	18.0	66.0	217.0	107.0	205.0	450.0
<b>Annual :</b>	2535		<b>Max. :</b>		187.0							

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1985 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	6.0	21.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	3.0
2	1.0	0.0	1.0	4.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	50.0
3	3.0	0.0	2.0	8.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	4.0
4	0.0	0.0	10.0	0.0	0.0	1.0	4.0	0.0	0.0	0.0	0.0	27.0
5	0.0	27.0	26.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
6	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
7	57.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
8	21.0	36.0	82.0	0.0	1.0	6.0	0.0	0.0	0.0	0.0	17.0	1.0
9	33.0	38.0	3.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	1.0
10	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
11	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	38.0	9.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	74.0	12.0	0.0	38.0	0.0	2.0	0.0	0.0	24.0	0.0	0.0	2.0
14	5.0	28.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	13.0	1.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	16.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	1.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	2.0	5.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
19	29.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.0
20	8.0	5.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	14.0	29.0
21	0.0	15.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	1.0	7.0	8.0
22	0.0	14.0	0.0	41.0	0.0	0.0	1.0	0.0	0.0	34.0	4.0	0.0
23	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0
24	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	38.0
25	66.0	0.0	5.0	0.0	0.0	1.0	0.0	0.0	6.0	27.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	1.0
27	31.0	1.0	14.0	4.0	0.0	0.0	0.0	0.0	0.0	5.0	77.0	7.0
28	31.0	4.0	0.0	8.0	1.0	0.0	0.0	0.0	6.0	31.0	0.0	4.0
29	80.0		5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	4.0
30	59.0		0.0	0.0	18.0	0.0	0.0	3.0	0.0	2.0	34.0	0.0
31	1.0		22.0		2.0		3.0	0.0		0.0		3.0
Max.	80.0	38.0	82.0	41.0	18.0	9.0	4.0	3.0	24.0	34.0	77.0	50.0
Total	540.0	268.0	274.0	150.0	22.0	31.0	8.0	4.0	36.0	115.0	215.0	250.0
Annual :	1913		Max. :		82.0							

Year : 1986 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	24.0	0.0	19.0	14.0	0.0	0.0	* 0.0	* 0.0	0.0	42.0	2.0	0.0
2	0.0	0.0	5.0	0.0	0.0	6.0	* 0.0	* 0.0	0.0	0.0	0.0	19.0
3	31.0	1.0	25.0	0.0	0.0	20.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
4	8.0	1.0	25.0	36.0	0.0	20.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
5	47.0	1.0	4.0	12.0	0.0	4.0	* 0.0	* 0.0	0.0	0.0	4.0	2.0
6	19.0	5.0	2.0	68.0	0.0	1.0	* 0.0	* 0.0	0.0	0.0	3.0	0.0
7	0.0	15.0	3.0	0.0	0.0	0.0	* 0.0	* 0.0	4.0	0.0	3.0	0.0
8	18.0	2.0	12.0	10.0	11.0	0.0	* 1.0	* 0.0	0.0	12.0	29.0	0.0
9	61.0	7.0	12.0	0.0	0.0	0.0	* 1.0	* 0.0	0.0	0.0	5.0	1.0
10	3.0	1.0	5.0	0.0	0.0	0.0	* 3.0	* 0.0	0.0	20.0	0.0	0.0
11	31.0	10.0	43.0	0.0	0.0	32.0	* 0.0	* 0.0	0.0	0.0	2.0	0.0
12	0.0	11.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	4.0	6.0
13	0.0	3.0	3.0	16.0	0.0	26.0	* 0.0	* 0.0	0.0	0.0	0.0	2.0
14	14.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	23.0
15	0.0	4.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	14.0
16	1.0	42.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	95.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	1.0
18	1.0	6.0	5.0	34.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	4.0	0.0
19	2.0	13.0	7.0	0.0	0.0	0.0	* 8.0	* 0.0	0.0	0.0	36.0	0.0
20	22.0	8.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
21	30.0	3.0	4.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
22	18.0	25.0	28.0	18.0	0.0	0.0	* 5.0	* 0.0	0.0	0.0	0.0	3.0
23	47.0	3.0	3.0	48.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	1.0
24	3.0	8.0	7.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	4.0	0.0
25	20.0	1.0	31.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	19.0	10.0
26	14.0	0.0	13.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	25.0	0.0
27	4.0	4.0	1.0	0.0	0.0	6.0	* 0.0	* 0.0	0.0	0.0	22.0	0.0
28	14.0	2.0	22.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
29	10.0		5.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	1.0
30	0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	14.0
31	1.0		3.0		0.0		* 0.0	* 0.0		0.0		17.0
Max.	61.0	42.0	43.0	95.0	11.0	32.0	* 8.0	* 0.0	4.0	42.0	36.0	23.0
Total	443.0	176.0	287.0	351.0	11.0	115.0	* 18.0	* 0.0	4.0	74.0	162.0	114.0
Annual :	* 1755.0		Max. :		* 95.0							

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1987 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	104.0	24.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
2	20.0	13.0	19.0	19.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.0
3	2.0	0.0	20.0	20.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
4	45.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	16.0	0.0	26.0	26.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
6	7.0	0.0	4.0	4.0	0.0	10.0	* 16.0	* 0.0	* 0.0	* 0.0	0.0	0.0
7	44.0	0.0	0.0	0.0	0.0	15.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
8	7.0	37.0	0.0	0.0	0.0	58.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
9	15.0	8.0	0.0	0.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
10	0.0	0.0	12.0	12.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
11	6.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0
13	0.0	0.0	52.0	52.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
14	7.0	5.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	35.0
15	2.0	4.0	6.0	6.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	16.0
16	5.0	8.0	66.0	66.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
17	1.0	10.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
18	3.0	13.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
19	0.0	32.0	57.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
20	0.0	0.0	65.0	17.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	26.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	17.0	0.0
22	19.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	20.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	5.0	2.0
24	0.0	0.0	7.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	66.0	0.0
25	11.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	7.0	13.0
26	12.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	47.0	0.0
27	9.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
30	45.0		0.0	1.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	10.0	23.0
31	2.0		0.0		0.0		* 0.0	* 0.0		* 0.0		18.0
<b>Max.</b>	104.0	37.0	66.0	66.0	3.0	58.0	* 16.0	* 0.0	* 0.0	* 0.0	66.0	35.0
<b>Total</b>	382.0	154.0	334.0	223.0	3.0	83.0	* 16.0	* 0.0	* 0.0	* 0.0	200.0	116.0

Annual : \* 1511.0      Max. : \* 104.0

Year : 1988 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	10.0
3	0.0	4.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
4	0.0	0.0	5.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	33.0	38.0	30.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	61.0
6	16.0	8.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	37.0
7	0.0	0.0	11.0	27.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
8	0.0	18.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	3.0	41.0	16.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	2.0	5.0	40.0	5.0	0.0	0.0	0.0	0.0	0.0	6.0	24.0
11	6.0	18.0	3.0	0.0	10.0	6.0	0.0	0.0	0.0	22.0	0.0	0.0
12	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	47.0
13	17.0	52.0	18.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	63.0	53.0
14	0.0	22.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	38.0	40.0	0.0
15	10.0	0.0	3.0	0.0	2.0	0.0	0.0	0.0	0.0	51.0	15.0	4.0
16	0.0	3.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	11.0	7.0
18	59.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
19	0.0	0.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	21.0	0.0	0.0	98.0	0.0	0.0	0.0	0.0	0.0	65.0	0.0	0.0
21	8.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0
22	15.0	0.0	13.0	0.0	8.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
23	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	35.0
24	26.0	15.0	41.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
25	41.0	13.0	17.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
26	0.0	0.0	19.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	22.0	7.0
27	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	8.0	0.0
28	30.0	0.0	4.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
29	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
31	5.0		27.0		0.0		0.0	0.0		1.0		0.0
<b>Max.</b>	59.0	52.0	41.0	98.0	25.0	10.0	0.0	25.0	0.0	65.0	63.0	61.0
<b>Total</b>	299.0	255.0	332.0	219.0	107.0	16.0	0.0	25.0	0.0	240.0	297.0	395.0

Annual : 2185      Max. : 98.0

\* \* \* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1989 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.0	3.0	7.0	3.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0	13.0
2	0.0	7.0	9.0	5.0	0.0	18.0	0.0	* 0.0	0.0	0.0	32.0	7.0
3	0.0	2.0	1.0	60.0	2.0	0.0	0.0	* 0.0	0.0	0.0	0.0	8.0
4	28.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
5	37.0	0.0	1.0	0.0	0.0	0.0	0.0	* 1.0	0.0	0.0	0.0	0.0
6	31.0	8.0	0.0	5.0	32.0	42.0	0.0	* 1.0	0.0	0.0	42.0	0.0
7	9.0	3.0	0.0	2.0	0.0	0.0	0.0	* 11.0	0.0	0.0	0.0	0.0
8	9.0	0.0	0.0	76.0	0.0	4.0	0.0	* 0.0	0.0	0.0	44.0	1.0
9	13.0	3.0	0.0	44.0	17.0	0.0	46.0	* 20.0	0.0	0.0	3.0	12.0
10	7.0	0.0	6.0	0.0	0.0	3.0	0.0	* 0.0	0.0	0.0	11.0	0.0
11	13.0	4.0	8.0	3.0	0.0	77.0	12.0	* 0.0	0.0	4.0	0.0	0.0
12	17.0	12.0	6.0	17.0	0.0	8.0	10.0	* 0.0	0.0	0.0	0.0	25.0
13	0.0	16.0	1.0	0.0	0.0	4.0	0.0	* 0.0	0.0	0.0	0.0	0.0
14	21.0	35.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	1.0	33.0	18.0
15	1.0	37.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	26.0	2.0	2.0
16	0.0	18.0	0.0	0.0	0.0	0.0	0.0	* 0.0	11.0	13.0	50.0	0.0
17	0.0	1.0	0.0	5.0	0.0	0.0	4.0	* 0.0	0.0	0.0	0.0	0.0
18	0.0	3.0	17.0	12.0	0.0	0.0	1.0	* 0.0	0.0	0.0	10.0	4.0
19	0.0	4.0	48.0	0.0	0.0	3.0	0.0	* 0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	3.0	3.0	0.0	0.0	2.0	* 0.0	0.0	0.0	0.0	0.0
21	0.0	45.0	0.0	0.0	0.0	0.0	23.0	* 0.0	0.0	0.0	0.0	0.0
22	10.0	6.0	0.0	0.0	33.0	0.0	0.0	* 0.0	0.0	0.0	1.0	0.0
23	3.0	4.0	0.0	2.0	6.0	0.0	2.0	* 0.0	0.0	0.0	2.0	54.0
24	6.0	2.0	3.0	10.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	10.0
25	3.0	12.0	7.0	17.0	1.0	0.0	4.0	* 0.0	0.0	0.0	0.0	0.0
26	11.0	6.0	5.0	7.0	3.0	0.0	6.0	* 0.0	0.0	0.0	0.0	13.0
27	9.0	34.0	0.0	0.0	0.0	0.0	15.0	* 0.0	0.0	0.0	1.0	32.0
28	1.0	9.0	4.0	0.0	1.0	0.0	0.0	* 0.0	0.0	4.0	0.0	3.0
29	0.0		4.0	6.0	3.0	0.0	0.0	* 0.0	0.0	68.0	1.0	1.0
30	2.0		0.0	0.0	2.0	0.0	0.0	* 7.0	0.0	1.0	0.0	0.0
31	5.0		6.0		14.0		0.0	* 1.0		0.0		34.0
<b>Max.</b>	37.0	45.0	48.0	76.0	33.0	77.0	46.0	* 20.0	11.0	68.0	50.0	54.0
<b>Total</b>	239.0	274.0	136.0	277.0	114.0	159.0	125.0	* 41.0	11.0	117.0	233.0	237.0

Annual : \* 1963.0      Max. : \* 77.0

Year : 1990 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	24.0	2.0	6.0	0.0	0.0	0.0	0.0	0.0	* 0.0	7.0	0.0	0.0
2	11.0	20.0	0.0	41.0	0.0	0.0	0.0	0.0	* 0.0	3.0	0.0	55.0
3	23.0	0.0	21.0	0.0	0.0	0.0	39.0	0.0	* 0.0	0.0	0.0	0.0
4	38.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	* 0.0	0.0	0.0	2.0
5	8.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
6	9.0	39.0	2.0	20.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
7	11.0	32.0	15.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
8	0.0	3.0	10.0	87.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
9	1.0	0.0	21.0	0.0	1.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
10	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	* 5.0	0.0	15.0	0.0
11	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
12	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	14.0	24.0
13	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
14	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
15	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
16	14.0	16.0	0.0	5.0	4.0	0.0	0.0	0.0	* 0.0	0.0	0.0	22.0
17	2.0	0.0	3.0	4.0	19.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
18	8.0	10.0	1.0	12.0	0.0	0.0	1.0	0.0	* 0.0	0.0	2.0	0.0
19	14.0	4.0	7.0	1.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	23.0
20	17.0	6.0	0.0	13.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.0
21	2.0	37.0	0.0	4.0	0.0	2.0	0.0	0.0	* 0.0	0.0	0.0	27.0
22	25.0	0.0	0.0	0.0	20.0	2.0	0.0	0.0	* 0.0	0.0	0.0	17.0
23	11.0	0.0	4.0	10.0	0.0	0.0	0.0	10.0	* 0.0	0.0	0.0	0.0
24	11.0	3.0	0.0	2.0	9.0	1.0	0.0	1.0	* 0.0	10.0	0.0	3.0
25	25.0	0.0	47.0	3.0	0.0	0.0	0.0	0.0	* 0.0	0.0	32.0	1.0
26	47.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	2.0
27	6.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	14.0	5.0
28	0.0	12.0	35.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	23.0
29	0.0		7.0	14.0	0.0	0.0	0.0	0.0	* 0.0	1.0	14.0	15.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	5.0	7.0
31	5.0		0.0		0.0		0.0	0.0		0.0		29.0
<b>Max.</b>	47.0	39.0	47.0	87.0	20.0	2.0	39.0	10.0	* 5.0	10.0	32.0	55.0
<b>Total</b>	312.0	192.0	212.0	256.0	53.0	5.0	41.0	11.0	* 5.0	21.0	96.0	258.0

Annual : \* 1462.0      Max. : \* 87.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1991 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.0	0.0	6.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	16.0	3.0	39.0	22.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0
3	0.0	0.0	0.0	14.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	72.0
4	0.0	32.0	7.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
5	7.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	37.0
6	0.0	3.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
7	30.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0
8	2.0	17.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0
9	2.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
10	0.0	9.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	4.0
11	5.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
12	35.0	18.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	1.0
13	72.0	28.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	2.0
14	14.0	47.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	39.0	13.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
16	12.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
17	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	0.0
18	11.0	7.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	13.0	23.0	0.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	4.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0
21	21.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
22	4.0	0.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	52.0	5.0
23	5.0	0.0	4.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
24	12.0	18.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	17.0	32.0	0.0
25	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	7.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	8.0
28	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	55.0	9.0
29	0.0		0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
31	0.0		14.0		0.0		0.0	0.0		0.0		0.0
Max.	72.0	64.0	39.0	46.0	3.0	0.0	0.0	0.0	0.0	17.0	55.0	72.0
Total	312.0	331.0	88.0	245.0	5.0	0.0	0.0	0.0	0.0	18.0	256.0	346.0

Annual : 1601 Max. : 72.0

Year : 1992 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	3.0	0.0	3.0	0.0	20.0	0.0	0.0	2.0	0.0	96.0	0.0
2	2.0	3.0	0.0	52.0	20.0	1.0	6.0	5.0	0.0	4.0	0.0	0.0
3	28.0	14.0	2.0	0.0	0.0	0.0	0.0	0.0	33.0	46.0	0.0	11.0
4	3.0	20.0	0.0	6.0	0.0	3.0	49.0	8.0	0.0	0.0	3.0	4.0
5	0.0	5.0	0.0	51.0	2.0	10.0	0.0	0.0	9.0	0.0	2.0	6.0
6	0.0	6.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
7	10.0	58.0	27.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0
8	0.0	18.0	11.0	31.0	0.0	9.0	3.0	0.0	7.0	9.0	0.0	0.0
9	0.0	12.0	0.0	1.0	0.0	3.0	0.0	0.0	0.0	1.0	0.0	8.0
10	5.0	40.0	4.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	33.0	0.0	51.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	2.0
12	1.0	0.0	15.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0
13	44.0	20.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	20.0	97.0	23.0	1.0	0.0	0.0	0.0	0.0	6.0	1.0	1.0	7.0
15	78.0	5.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	4.0	1.0	3.0
16	0.0	0.0	1.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
17	0.0	6.0	34.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	1.0
18	1.0	47.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
19	0.0	0.0	3.0	1.0	10.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0
20	12.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	7.0	5.0	0.0	20.0
21	13.0	7.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
22	6.0	9.0	3.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0
23	22.0	34.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	26.0
24	42.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0
25	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	37.0	61.0
26	0.0	0.0	0.0	3.0	0.0	0.0	0.0	32.0	0.0	13.0	44.0	0.0
27	0.0	0.0	0.0	1.0	23.5	0.0	0.0	27.0	0.0	9.0	18.0	0.0
28	9.0	8.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
29	37.0	3.0	5.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	11.0	7.0
30	9.0		0.0	0.0	75.5	0.0	0.0	8.0	0.0	0.0	35.0	0.0
31	1.0		1.0		0.0		0.0	125.0		0.0		41.0
Max.	78.0	97.0	51.0	52.0	75.5	20.0	49.0	125.0	33.0	46.0	96.0	61.0
Total	380.0	415.0	233.0	218.0	131.0	46.0	58.0	260.0	84.0	125.0	398.0	272.0

Annual : 2620 Max. : 125.0

" \* " : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1993 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 57.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	38.0
2	* 0.0	4.0	0.0	1.0	53.0	53.0	0.0	0.0	0.0	* 0.0	0.0	53.0
3	* 0.0	4.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	81.0
4	* 0.0	5.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	8.0
5	* 8.0	18.0	24.0	3.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
6	* 86.0	32.0	0.0	49.0	5.0	6.0	0.0	0.0	0.0	* 0.0	0.0	4.0
7	* 4.0	30.0	14.0	13.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	18.0
8	* 25.0	0.0	27.0	15.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	4.0
9	* 9.0	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	5.0
10	* 1.0	0.0	12.0	1.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	10.0
11	* 4.0	0.0	27.0	22.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	61.0
12	* 4.0	0.0	19.0	64.0	0.0	37.0	0.0	0.0	0.0	* 0.0	94.0	29.0
13	* 35.0	0.0	76.0	0.0	0.0	0.0	0.0	0.0	0.0	* 1.0	0.0	0.0
14	* 0.0	0.0	0.0	10.0	0.0	8.0	0.0	0.0	0.0	* 0.0	18.0	2.0
15	* 0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
16	* 3.0	0.0	0.0	2.0	0.0	29.0	0.0	0.0	0.0	* 0.0	28.0	0.0
17	* 20.0	0.0	6.0	0.0	0.0	3.0	0.0	0.0	0.0	* 0.0	0.0	0.0
18	* 27.0	38.0	49.0	0.0	0.0	4.0	0.0	0.0	0.0	* 0.0	0.0	0.0
19	* 0.0	12.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	* 0.0	7.0	3.0
20	* 0.0	16.0	5.0	0.0	0.0	2.0	0.0	0.0	0.0	* 0.0	46.0	20.0
21	* 0.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	6.0	0.0
22	* 65.0	9.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0
23	* 12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	6.0
24	* 23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
25	* 3.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	1.0	9.0
26	* 14.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	21.0
27	* 12.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
28	* 4.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	8.0	0.0
29	* 10.0		4.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	5.0	0.0
30	* 3.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	18.0	0.0
31	* 6.0		2.0		0.0		0.0	0.0		* 0.0		0.0
Max.	* 86.0	38.0	76.0	64.0	53.0	53.0	0.0	0.0	0.0	* 1.0	94.0	81.0
Total	* 435.0	185.0	306.0	237.0	58.0	146.0	0.0	0.0	0.0	* 1.0	231.0	375.0

Annual : \* 1974.0      Max. : \* 94.0

Year : 1994 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	31.0	29.0	18.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.3	8.5
2	0.0	0.0	0.0	32.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	5.1
3	0.0	0.0	24.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
4	0.0	24.0	37.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	1.1
5	5.0	9.0	29.0	0.0	11.9	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	5.7
6	0.0	0.0	29.0	0.0	5.7	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.3	9.0
7	0.0	15.0	28.0	0.0	0.0	* 1.1	* 0.0	* 0.0	* 0.0	0.0	0.0	4.0
8	36.0	11.0	18.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.6
9	0.0	0.0	10.0	10.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
10	24.0	10.0	0.0	71.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	6.2
11	4.0	0.0	0.0	0.0	1.7	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	6.2
12	6.0	0.0	17.0	0.0	4.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	5.1
13	0.0	9.0	10.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	24.3
14	36.0	12.0	0.0	56.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.7	1.7
15	2.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.7	5.1	30.0
16	13.0	14.0	0.0	61.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.9	11.3
17	18.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	22.0	15.3
18	5.0	0.0	80.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.6	4.0	0.0
19	39.0	16.0	76.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	5.1	0.0
20	3.0	0.0	11.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.3	0.0
21	35.0	0.0	13.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.4	0.0
22	5.0	0.0	22.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.6
23	18.0	0.0	27.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
24	4.0	0.0	9.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
25	0.0	0.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.4	3.4	0.0
27	38.0	8.0	89.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.4	0.0
28	0.0	26.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	8.5	0.0
29	4.0		8.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.6	2.8	0.0
30	12.0		0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		* 0.0	* 0.0		0.0		2.8
Max.	39.0	31.0	89.0	71.0	11.9	* 1.1	* 0.0	* 0.0	* 0.0	3.4	22.0	30.0
Total	307.0	185.0	570.0	248.0	23.2	* 1.1	* 0.0	* 0.0	* 0.0	6.2	74.0	137.3

Annual : \* 1551.9      Max. : \* 89.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1995 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	10.0	10.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0
2	21.0	21.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	0.0
3	0.0	23.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
4	14.0	27.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
5	11.0	0.0	1.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0
6	6.0	36.0	0.0	35.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	28.0
7	16.0	47.0	2.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
8	7.0	19.0	11.0	0.0	2.0	7.0	9.0	0.0	0.0	0.0	35.0	8.0
9	0.0	8.0	0.0	5.0	18.0	42.0	9.0	0.0	0.0	0.0	0.0	6.0
10	7.0	9.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	5.0
11	64.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.0	2.0	4.0
12	56.0	35.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
13	1.0	1.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	3.0
14	0.0	16.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	48.0	2.0
16	0.0	3.0	4.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	35.0	17.0
17	2.0	2.0	0.0	46.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0	0.0
18	0.0	72.0	7.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	78.0	0.0
19	2.0	42.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	8.0	28.0	2.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
21	6.0	15.0	1.0	0.0	5.0	52.0	7.0	0.0	0.0	0.0	0.0	0.0
22	25.0	0.0	1.0	0.0	0.0	36.0	0.0	0.0	0.0	2.0	0.0	9.0
23	0.0	46.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	26.0	4.0
24	4.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	32.0	1.0
25	57.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	20.0	4.0
26	16.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	20.0	0.0
27	13.0	5.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	6.0	71.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	1.0
29	8.0		29.0	18.0	2.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
30	3.0		10.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
31	0.0		5.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	64.0	72.0	34.0	46.0	18.0	52.0	9.0	0.0	0.0	56.0	78.0	44.0
<b>Total</b>	363.0	660.0	219.0	204.0	27.0	151.0	30.0	0.0	0.0	141.0	354.0	194.0

Annual : 2343                      Max. : 78.0

Year : 1996 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	0.0
2	7.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0
3	14.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	2.0	17.0
4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
5	3.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	12.0
6	27.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	16.0
7	28.0	8.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
8	9.0	11.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	4.0	0.0
9	0.0	22.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	12.0
10	0.0	0.0	0.0	6.0	0.0	0.0	0.0	9.0	0.0	0.0	13.0	5.0
11	0.0	0.0	3.0	1.0	0.0	0.0	0.0	22.0	0.0	0.0	0.0	3.0
12	1.0	32.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	8.0
13	21.0	7.0	34.0	3.0	0.0	0.0	0.0	2.0	0.0	0.0	7.0	15.0
14	9.0	10.0	3.0	7.0	0.0	0.0	19.0	0.0	0.0	0.0	15.0	19.0
15	0.0	0.0	9.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
16	0.0	0.0	160.0	18.0	12.0	0.0	0.0	0.0	0.0	0.0	22.0	0.0
17	4.0	4.0	0.0	6.0	7.0	0.0	0.0	0.0	0.0	0.0	12.0	2.0
18	109.0	0.0	18.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
19	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	1.0
20	24.0	28.0	1.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0
21	73.0	29.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	4.0	0.0
22	28.0	0.0	0.0	51.0	0.0	0.0	0.0	0.0	0.0	2.0	5.0	0.0
23	0.0	7.0	6.0	0.0	0.0	0.0	2.0	0.0	0.0	3.0	15.0	5.0
24	9.0	0.0	4.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	35.0	0.0
25	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	4.0	0.0	0.0
26	0.0	19.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	23.0	0.0	0.0
27	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	3.0
28	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
29	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	8.0
31	0.0		0.0		0.0		0.0	0.0		2.0		0.0
<b>Max.</b>	109.0	32.0	160.0	51.0	12.0	4.0	19.0	22.0	0.0	35.0	54.0	20.0
<b>Total</b>	381.0	202.0	270.0	140.0	19.0	4.0	21.0	34.0	0.0	106.0	313.0	148.0

Annual : 1638                      Max. : 160.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1997 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.0	0.0	1.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	5.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	12.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
6	8.0	6.0	74.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	32.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0
9	2.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
10	1.0	0.0	0.0	16.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
11	28.0	0.0	8.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	11.0	7.0
12	0.0	0.0	2.0	45.0	3.0	29.0	0.0	0.0	0.0	0.0	0.0	14.0
13	0.0	12.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.0
14	19.0	4.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	8.0	20.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	49.0
16	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	3.0	1.0	11.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	5.0	13.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	13.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
21	4.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	2.0	3.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
23	16.0	4.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	51.0	10.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	26.0
25	11.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	1.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
27	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0
28	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
29	0.0		11.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	0.0
30	0.0		0.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		10.0
Max.	51.0	20.0	74.0	45.0	49.0	29.0	0.0	0.0	0.0	0.0	21.0	61.0
Total	236.0	171.0	126.0	152.0	74.0	29.0	0.0	0.0	0.0	0.0	49.0	206.0
Annual :	1043		Max. :		74.0							

Year : 1998 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.0	79.0	11.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
2	0.0	0.0	0.0	6.0	6.0	1.0	4.0	0.0	0.0	0.0	8.0	0.0
3	0.0	1.0	30.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	77.0	1.0
4	0.0	6.0	18.0	1.0	3.0	0.0	1.0	0.0	0.0	0.0	6.0	5.0
5	0.0	21.0	3.0	0.0	0.0	32.0	0.0	0.0	0.0	0.0	24.0	2.0
6	0.0	33.0	16.0	1.0	0.0	0.0	3.0	0.0	0.0	0.0	14.0	0.0
7	0.0	102.0	0.0	22.0	0.0	23.0	0.0	0.0	0.0	31.0	1.0	1.0
8	2.0	5.0	0.0	21.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	1.0
9	0.0	0.0	0.0	0.0	0.0	4.0	2.0	0.0	0.0	0.0	3.0	0.0
10	18.0	0.0	6.0	22.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	0.0
11	0.0	4.0	30.0	8.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
12	0.0	0.0	14.0	60.0	0.0	4.0	15.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	13.0	10.0	0.0	3.0	3.0	0.0	0.0	0.0	16.0	1.0
14	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	20.0	0.0
15	21.0	3.0	5.0	0.0	0.0	0.0	5.0	0.0	0.0	14.0	20.0	74.0
16	0.0	16.0	15.0	0.0	0.0	34.0	1.0	0.0	0.0	3.0	0.0	23.0
17	5.0	0.0	6.0	0.0	1.0	0.0	19.0	0.0	0.0	0.0	3.0	4.0
18	18.0	25.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	4.0	67.0	37.0
19	0.0	0.0	6.0	20.0	0.0	1.0	0.0	0.0	2.0	5.0	9.0	31.0
20	15.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0	3.0
21	0.0	6.0	0.0	14.0	0.0	1.0	0.0	0.0	0.0	3.0	0.0	0.0
22	1.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	18.0	0.0	0.0
23	0.0	13.0	0.0	13.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	65.0
24	0.0	8.0	6.0	2.0	0.0	1.0	0.0	0.0	3.0	0.0	0.0	3.0
25	0.0	18.0	1.0	0.0	0.0	1.0	4.0	1.0	1.0	0.0	0.0	1.0
26	0.0	9.0	0.0	1.0	0.0	0.0	7.0	0.0	3.0	0.0	0.0	6.0
27	9.0	15.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	20.0	0.0	2.0	1.0	0.0	0.0	59.0	0.0	13.0	0.0	8.0	0.0
29	6.0		0.0	11.0	0.0	6.0	0.0	0.0	10.0	13.0	5.0	0.0
30	28.0		1.0	8.0	0.0	4.0	0.0	0.0	3.0	0.0	0.0	0.0
31	12.0		0.0		0.0		0.0	0.0		6.0		18.0
Max.	28.0	102.0	30.0	60.0	6.0	34.0	59.0	1.0	13.0	34.0	77.0	74.0
Total	160.0	364.0	213.0	256.0	11.0	151.0	140.0	1.0	35.0	133.0	285.0	282.0
Annual :	2031		Max. :		102.0							

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 1999 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	12.0	2.0	5.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
2	1.0	8.0	3.0	0.0	44.0	0.0	0.0	0.0	0.0	0.0	13.0	3.0
3	58.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0
4	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
5	0.0	20.0	0.0	4.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	2.0	0.0
7	0.0	16.0	67.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
8	4.0	0.0	10.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0
9	15.0	3.0	0.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	5.0	20.0
10	14.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0
11	0.0	9.0	2.0	37.0	0.0	0.0	0.0	0.0	0.0	6.0	12.0	14.0
12	6.0	1.0	0.0	0.0	12.0	0.0	0.0	10.0	0.0	2.0	0.0	59.0
13	0.0	0.0	14.0	15.0	0.0	0.0	0.0	0.0	0.0	8.0	25.0	13.0
14	11.0	7.0	9.0	14.0	0.0	0.0	0.0	0.0	0.0	17.0	9.0	3.0
15	3.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	4.0
16	50.0	1.0	8.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	0.0
18	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	11.0
19	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
20	22.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0	0.0
21	7.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	29.0	0.0
22	9.0	12.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	36.0	0.0
23	2.0	1.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	25.0	0.0
24	26.0	25.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	29.0
25	2.0	6.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0	61.0	21.0
26	1.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	22.0
27	1.0	6.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	13.0
28	1.0	7.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	7.0
29	15.0		1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	38.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	27.0		0.0		0.0		0.0	0.0		56.0		0.0
Max.	58.0	25.0	67.0	37.0	44.0	2.0	0.0	10.0	5.0	80.0	61.0	59.0
Total	325.0	221.0	134.0	104.0	74.0	3.0	0.0	10.0	5.0	260.0	395.0	265.0

Annual : 1796 Max. : 80.0

Year : 2000 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
2	0.0	11.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	32.0	0.0	9.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
4	0.0	19.0	0.0	35.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
5	8.0	31.0	70.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
6	14.0	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	20.0	15.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	10.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	0.0
9	19.0	5.0	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
10	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	200.0
11	5.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	29.0
12	0.0	0.0	3.0	5.0	0.0	42.0	0.0	0.0	0.0	0.0	0.0	19.0
13	0.0	29.0	13.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	9.0
14	0.0	0.0	18.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	0.0
15	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	6.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	2.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	25.0	11.0	12.0
18	0.0	13.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	24.0	25.0	0.0
19	0.0	3.0	40.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	8.0	38.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
21	34.0	30.0	10.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
22	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	5.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	67.0	0.0	0.0
26	0.0	2.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	11.0	0.0
27	0.0	0.0	8.0	44.0	0.0	0.0	0.0	0.0	0.0	49.0	6.0	0.0
28	5.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0
29	0.0	19.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	47.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
31	30.0		3.0		0.0		0.0	3.0		8.0		0.0
Max.	47.0	38.0	70.0	70.0	22.0	42.0	0.0	3.0	0.0	67.0	45.0	200.0
Total	233.0	267.0	276.0	332.0	56.0	54.0	0.0	3.0	0.0	204.0	195.0	269.0

Annual : 1889 Max. : 200.0

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT PURWANTORO

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 2001 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	15.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	N.A.
2	0.0	0.0	5.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	19.0	N.A.
3	0.0	15.0	0.0	38.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
4	34.0	0.0	0.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
5	21.0	14.0	0.0	44.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	N.A.
6	18.0	12.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	N.A.
7	35.0	15.0	2.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
8	44.0	18.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
9	7.0	0.0	0.0	9.0	0.0	7.0	0.0	0.0	0.0	0.0	4.0	N.A.
10	18.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
11	24.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	N.A.
12	4.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	N.A.
13	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
14	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
15	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	N.A.
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	61.0	N.A.
17	7.0	0.0	17.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	N.A.
18	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	31.0	N.A.
19	6.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	N.A.
20	4.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	N.A.
21	10.0	0.0	9.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	N.A.
22	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	2.0	N.A.
23	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	N.A.
24	14.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	0.0	N.A.
25	0.0	0.0	21.0	2.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	N.A.
26	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
27	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	N.A.
28	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	N.A.
29	35.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
30	3.0		16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N.A.
31	0.0		0.0		0.0		0.0	0.0		0.0		N.A.
Max.	44.0	35.0	24.0	44.0	48.0	17.0	0.0	0.0	0.0	49.0	61.0	0.0
Total	308.0	142.0	165.0	124.0	98.0	53.0	0.0	0.0	0.0	80.0	234.0	0.0

Annual : 1204 Max. : 61.0

Year : 2002 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	2.0	132.0	0.0	0.0	0.0	0.0	0.0	0.0	43.0	29.0
2	0.0	0.0	7.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	9.0	0.0
3	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0
4	0.0	70.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
5	0.0	3.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	17.0
6	0.0	17.0	93.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0
7	0.0	0.0	39.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	11.0
8	0.0	0.0	3.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	10.0
9	0.0	27.0	7.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
10	0.0	30.0	5.0	4.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	11.0
11	0.0	75.0	8.0	15.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0
12	0.0	0.0	9.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
13	0.0	0.0	74.0	23.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
14	0.0	47.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
15	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	42.0
16	0.0	25.0	7.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	17.0
17	0.0	0.0	9.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0
18	0.0	11.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
19	0.0	6.0	6.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	60.0	12.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	3.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	20.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
23	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	6.0
24	0.0	0.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	5.0
25	0.0	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	14.0
26	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0
27	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
28	0.0	0.0	69.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
29	0.0		7.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0	7.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	8.0
31	0.0		0.0		0.0		0.0	0.0		0.0		7.0
Max.	0.0	75.0	93.0	132.0	26.0	4.0	0.0	7.0	0.0	27.0	43.0	49.0
Total	0.0	391.0	424.0	581.0	44.0	4.0	0.0	7.0	0.0	27.0	229.0	390.0

Annual : 2097 Max. : 132.0

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 2003 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	53.0	37.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	25.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	19.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	25.0	5.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	22.0	4.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	9.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	11.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	17.0	8.0	7.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	8.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	4.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	4.0	35.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	33.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	1.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	8.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	31.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	30.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	9.0	51.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	6.0	18.0	0.0	0.0	14.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0
22	11.0	3.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	10.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	6.0	19.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	46.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	6.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	21.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	25.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	53.0	49.0	51.0	25.0	20.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	297.0	361.0	226.0	63.0	53.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0
Annual :	1019		Max. :		53.0							

Year : 2004 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
Max.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Annual :	0		Max. :		0.0							

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT PURWANTORO**

Station No. : MD6  
 Basin : Madiun  
 Elevation : 295 m

Year : 2005 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	57.0	0.0	0.0	49.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
2	0.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	0.0
3	0.0	0.0	50.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	17.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	7.0	0.0	23.0	33.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
6	0.0	0.0	49.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	3.0	0.0	3.0	4.0	0.0	0.0	48.0	0.0	0.0	1.0	0.0	0.0
8	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	7.0	1.0	2.0	0.0	0.0	29.0	0.0	0.0	0.0	0.0	0.0
12	0.0	10.0	8.0	0.0	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0
13	0.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0
14	86.0	19.0	13.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
15	0.0	1.0	0.0	9.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
16	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
17	0.0	0.0	0.0	18.0	0.0	0.0	5.0	1.0	0.0	0.0	0.0	0.0
18	2.0	0.0	0.0	2.0	0.0	0.0	0.0	1.0	0.5	9.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	5.0	0.0
20	4.0	15.0	0.0	1.0	0.0	3.0	0.0	3.0	17.0	2.0	0.0	0.0
21	0.0	0.0	5.0	2.0	0.0	46.0	0.0	0.0	0.0	0.0	17.0	0.0
22	19.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	1.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	55.0	0.0	0.0
24	0.0	96.0	0.0	0.0	0.0	43.0	0.0	0.0	0.0	36.0	0.0	0.0
25	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
26	21.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	3.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	33.0	0.0	27.0	0.0	0.0	3.0	0.0	0.0	0.0	1.0	0.0	0.0
29	0.0		41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	3.0		2.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	86.0	96.0	50.0	49.0	0.0	46.0	48.0	3.0	17.0	55.0	29.0	17.0
<b>Total</b>	256.0	170.0	248.0	180.0	0.0	111.5	99.0	5.0	18.5	162.0	51.0	17.0
<b>Annual :</b>	1318		<b>Max. :</b> 96.0									

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1975 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	*0.0	*0.0	*2.1	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*5.3	*3.5
2	*61.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.3
3	*55.0	*0.0	*0.1	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*31.9
4	*0.0	*0.0	*0.1	*0.0	*10.0	*0.0	*0.0	*0.0	*0.0	*0.0	*3.5	*20.9
5	*0.0	*0.0	*0.0	*0.0	*12.8	*0.0	*0.0	*0.0	*0.0	*0.0	*13.2	*10.4
6	*0.0	*10.0	*0.0	*0.0	*9.8	*0.0	*0.0	*0.0	*0.0	*0.0	*47.9	*0.0
7	*0.0	*0.5	*0.0	*69.4	*0.0	*0.0	*0.0	*0.0	*0.0	*0.7	*3.4	*0.4
8	*0.0	*9.5	*0.0	*5.6	*0.1	*0.0	*0.0	*0.0	*0.4	*2.1	*0.1	*13.2
9	*1.0	*0.3	*0.0	*2.6	*9.8	*0.0	*0.0	*0.0	*20.3	*0.0	*0.0	*12.4
10	*131.0	*7.7	*0.0	*0.2	*16.8	*0.0	*23.5	*0.0	*0.8	*0.0	*1.6	*2.7
11	*0.0	*5.9	*0.0	*27.2	*0.1	*0.0	*0.0	*0.0	*78.8	*0.0	*5.5	*0.9
12	*35.0	*7.9	*0.0	*5.8	*9.6	*0.0	*0.0	*0.0	*61.1	*0.3	*36.4	*0.0
13	*10.0	*7.6	*0.0	*5.1	*0.0	*0.0	*1.4	*0.0	*43.2	*19.9	*28.7	*0.0
14	*0.0	*0.0	*10.5	*5.6	*55.3	*0.0	*0.0	*0.0	*0.1	*0.0	*0.0	*10.0
15	*0.0	*0.0	*8.5	*0.0	*14.6	*0.0	*0.0	*0.0	*9.4	*0.0	*0.1	*1.5
16	*0.0	*3.7	*0.0	*3.4	*10.0	*0.0	*0.0	*1.7	*0.1	*0.0	*0.1	*0.4
17	*0.0	*7.4	*0.6	*30.1	*10.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.2
18	*24.0	*8.4	*0.4	*67.5	*4.8	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.4
19	*0.0	*0.0	*0.0	*2.5	*1.5	*7.2	*0.0	*0.0	*0.0	*0.0	*0.0	*0.1
20	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*15.7	*0.0	*0.2
21	*0.0	*1.9	*0.5	*0.0	*0.8	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
22	*0.0	*2.3	*4.3	*0.0	*0.2	*0.0	*0.0	*0.0	*0.0	*17.0	*0.0	*0.0
23	*0.0	*0.2	*0.0	*10.0	*0.5	*0.0	*0.0	*0.0	*0.0	*58.7	*0.0	*0.4
24	*114.0	*0.0	*2.0	*0.0	*2.3	*0.0	*0.0	*0.0	*0.0	*3.7	*1.8	*0.2
25	*0.0	*1.8	*0.0	*4.2	*13.3	*0.0	*0.0	*0.0	*0.0	*0.2	*31.1	*0.0
26	*0.0	*8.6	*0.0	*8.8	*12.6	*0.3	*0.1	*0.0	*0.0	*0.4	*0.3	*6.5
27	*26.0	*15.1	*0.0	*8.0	*0.0	*0.0	*0.0	*0.0	*0.0	*2.6	*0.0	*0.0
28	*37.0	*5.2	*18.4	*0.0	*0.0	*0.0	*0.0	*0.0	*21.6	*8.9	*10.5	*0.0
29	*37.0		*31.9	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*6.0	*0.0
30	*0.0		*77.5	*0.0	*0.0	*0.0	*0.0	*34.4	*0.0	*8.6	*15.3	*0.0
31	*22.0		*56.0		*0.0		*0.0	*0.0		*14.4		*0.0
Max.	*131.0	*15.1	*77.5	*69.4	*55.3	*7.2	*23.5	*34.4	*78.8	*58.7	*47.9	*31.9
Total	*553.0	*104.0	*212.9	*256.0	*194.9	*7.5	*25.0	*36.1	*235.8	*153.2	*210.8	*116.5

Annual : \*2105.7      Max. : \*131.0

Year : 1976 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	8.0	95.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	113.0	*27.0
2	0.0	0.0	22.0	33.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
3	42.0	0.0	74.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	98.0	*0.0
4	0.0	0.0	6.0	2.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
5	36.0	0.0	30.0	3.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
6	7.0	0.0	2.0	0.0	*99.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
7	14.0	18.0	0.0	97.0	*5.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
8	0.0	0.0	2.0	63.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
9	0.0	2.0	196.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
10	0.0	24.0	7.0	0.0	*3.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
11	6.0	87.0	35.0	0.0	*5.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*32.0
12	40.0	29.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	16.0	0.0	*43.0
13	38.0	16.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
14	4.0	0.0	0.0	179.0	*0.0	0.0	0.0	*0.0	*0.0	3.0	0.0	*0.0
15	38.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	58.0	0.0	*0.0
16	228.0	0.0	38.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	29.0	0.0	*0.0
17	44.0	22.0	16.0	27.0	*0.0	0.0	0.0	*0.0	*0.0	16.0	0.0	*0.0
18	3.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
19	92.0	38.0	0.0	151.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
20	68.0	5.0	5.0	62.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	71.0	*3.0
21	2.0	6.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	38.0	*0.0
22	3.0	0.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	38.0	*0.0
23	0.0	5.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	3.0	*0.0
24	63.0	36.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	17.0	*0.0
25	0.0	4.0	23.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*0.0
26	2.0	53.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	25.0	*0.0
27	45.0	18.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	9.0	3.0	*14.0
28	0.0	0.0	17.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	5.0	44.0	*0.0
29	0.0	41.0	0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	0.0	0.0	*59.0
30	2.0		0.0	0.0	*0.0	0.0	0.0	*0.0	*0.0	45.0	0.0	*0.0
31	3.0		5.0		*0.0		0.0	*0.0		27.0		*0.0
Max.	228.0	87.0	196.0	179.0	*99.0	0.0	0.0	*0.0	*0.0	58.0	113.0	*59.0
Total	780.0	412.0	573.0	617.0	*112.0	0.0	0.0	*0.0	*0.0	208.0	450.0	*178.0

Annual : \*3330.0      Max. : \*228.0

\*\* : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1977 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 0.0	8.0	4.0	0.0	0.0	7.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	9.0
2	* 0.0	3.0	10.0	34.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0
3	* 7.0	0.0	0.0	3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	33.0
4	* 3.0	52.0	6.0	0.0	0.0	4.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	4.0
5	* 5.0	13.0	15.0	0.0	0.0	51.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
6	* 148.0	0.0	27.0	0.0	0.0	20.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
7	* 0.0	34.0	0.0	16.0	0.0	48.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	21.0
8	3.0	0.0	26.0	7.0	0.0	42.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	19.0
9	* 15.0	9.0	35.0	5.0	0.0	46.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
10	* 3.0	0.0	12.0	0.0	0.0	52.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0
11	* 0.0	48.0	7.0	3.0	0.0	5.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	26.0
12	* 0.0	8.0	52.0	0.0	15.0	21.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
13	* 3.0	22.0	3.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
14	* 0.0	8.0	12.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
15	* 0.0	19.0	26.0	0.0	4.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
16	* 0.0	4.0	32.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
17	* 0.0	6.0	23.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	6.0
18	* 26.0	0.0	21.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.0	0.0
19	* 76.0	10.0	3.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
20	* 47.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
21	* 19.0	0.0	2.0	5.0	0.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	24.0	0.0
22	* 54.0	0.0	8.0	7.0	0.0	2.0	* 0.0	* 0.0	* 0.0	* 0.0	3.0	0.0
23	* 22.0	12.0	4.0	28.0	0.0	6.0	* 0.0	* 0.0	* 0.0	* 0.0	36.0	0.0
24	* 74.0	4.0	0.0	23.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.0	7.0
25	* 0.0	3.0	0.0	51.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
26	* 4.0	0.0	9.0	0.0	6.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	2.0	4.0
27	* 2.0	0.0	0.0	2.0	4.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
28	* 39.0	32.0	11.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
29	* 0.0		0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
30	* 2.0		40.0	68.0	26.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0
31	* 44.0		1.0		0.0		* 0.0	* 0.0		* 0.0		44.0
<b>Max.</b>	* 148.0	52.0	52.0	68.0	26.0	52.0	* 0.0	* 0.0	* 0.0	* 0.0	36.0	44.0
<b>Total</b>	* 596.0	295.0	389.0	252.0	55.0	307.0	* 0.0	* 0.0	* 0.0	* 0.0	69.0	190.0

Annual : \* 2153.0      Max. : \* 148.0

Year : 1978 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	23.0	0.0	3.0	7.0	86.0	2.0	14.0	2.0	8.0	0.0	5.0	1.0
2	21.0	0.0	16.0	0.0	9.0	1.0	0.0	1.0	5.0	0.0	0.0	12.0
3	10.0	6.0	0.0	0.0	92.0	0.0	2.0	4.0	0.0	0.0	0.0	10.0
4	8.0	0.0	32.0	0.0	0.0	0.0	0.0	54.0	0.0	0.0	0.0	0.0
5	22.0	3.0	34.0	0.0	17.0	3.0	0.0	34.0	42.0	0.0	0.0	0.0
6	18.0	2.0	34.0	0.0	0.0	26.0	5.0	0.0	0.0	0.0	75.0	0.0
7	2.0	1.0	7.0	0.0	3.0	22.0	37.0	0.0	0.0	0.0	0.0	4.0
8	0.0	0.0	14.0	14.0	0.0	31.0	3.0	0.0	0.0	0.0	3.0	2.0
9	37.0	0.0	6.0	18.0	0.0	11.0	11.0	0.0	0.0	0.0	0.0	0.0
10	9.0	4.0	3.0	10.0	0.0	3.0	0.0	0.0	0.0	0.0	7.0	9.0
11	29.0	0.0	18.0	15.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
12	5.0	3.0	9.0	32.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
13	24.0	5.0	0.0	27.0	0.0	0.0	36.0	0.0	0.0	0.0	8.0	0.0
14	2.0	0.0	22.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
15	16.0	0.0	43.0	10.0	36.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	7.0	20.0	0.0	0.0	0.0	0.0	0.0	47.0	9.8	0.0	3.0
17	6.0	22.0	13.0	0.0	21.0	11.0	0.0	53.0	0.0	0.0	0.0	4.0
18	0.0	0.0	19.0	0.0	0.0	2.0	0.0	0.0	17.0	0.0	0.0	32.0
19	21.0	0.0	33.0	21.0	4.0	0.0	0.0	0.0	8.0	0.0	0.0	3.0
20	35.0	24.0	21.0	0.0	2.0	16.0	0.0	9.0	4.0	0.0	0.0	7.0
21	6.0	26.0	4.0	0.0	15.0	46.0	0.0	0.0	0.0	0.0	0.0	5.0
22	22.0	42.0	109.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0
23	3.0	3.0	3.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	16.3	0.0
24	11.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0
25	6.0	8.0	8.0	0.0	0.0	2.0	1.0	0.0	0.0	6.5	0.0	0.0
26	3.0	12.0	0.0	1.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	3.0
27	14.0	0.0	0.0	0.0	0.0	53.0	0.0	0.0	0.0	1.1	0.0	15.0
28	0.0	0.0	2.0	0.0	0.0	1.0	0.0	0.0	0.0	4.4	0.0	14.0
29	7.0		2.0	21.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	9.0
30	0.0		14.0	0.0	0.0	1.0	0.0	13.0	72.0	0.0	0.0	11.0
31	21.0		0.0		3.0		0.0	0.0		0.0		14.0
<b>Max.</b>	37.0	42.0	109.0	32.0	92.0	53.0	37.0	54.0	72.0	16.3	75.0	32.0
<b>Total</b>	381.0	170.0	489.0	176.0	304.0	268.0	125.0	170.0	203.0	43.5	101.0	193.0

Annual : 2,624      Max. : 109.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT JEJERUK

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1979 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	21.0	0.0	1.0	0.0	0.0	17.0	1.3	0.0	0.0	0.0	6.0	17.0
2	7.0	3.0	1.0	0.0	13.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0
3	1.0	0.0	24.0	61.0	24.0	0.0	0.0	0.0	0.0	0.0	82.0	3.0
4	3.0	0.0	8.0	9.0	2.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
5	12.0	2.0	1.0	0.0	63.0	14.0	0.0	0.0	0.0	0.0	0.0	14.0
6	5.0	2.0	13.0	22.0	12.0	0.0	0.0	0.6	0.0	0.0	0.0	2.0
7	0.0	5.0	1.0	53.0	61.0	17.0	0.0	1.9	0.0	4.0	0.0	4.0
8	1.0	0.0	6.0	83.0	0.0	1.0	0.0	33.0	16.0	0.0	0.0	0.0
9	4.0	47.0	3.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	69.0	0.0
10	2.0	37.0	2.0	3.0	1.0	26.0	0.0	4.4	0.0	0.0	78.0	0.0
11	3.0	0.0	11.0	35.0	1.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0
12	34.0	9.0	9.0	63.0	0.0	0.0	0.0	0.0	0.0	26.0	17.0	0.0
13	38.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	7.0	6.0	31.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0
15	9.0	17.0	7.0	31.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
16	1.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	0.0
17	0.0	1.0	0.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
18	0.0	8.0	0.0	1.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	10.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	1.0
20	15.0	0.0	28.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
21	1.0	5.0	1.0	13.0	67.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0
22	9.0	17.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	3.0	5.0	0.0	11.0	22.0	0.0	0.0	0.0	0.0	43.0	0.0	0.0
24	4.0	1.0	0.0	64.0	8.0	0.0	0.0	0.0	34.0	0.0	0.0	36.0
25	33.0	17.0	2.0	47.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	5.0	9.0	0.0	26.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
27	29.0	2.0	41.0	15.0	0.0	0.0	0.0	0.0	0.0	17.0	6.0	1.0
28	0.0	3.0	13.0	6.0	0.0	0.0	0.0	0.0	10.0	3.0	0.0	0.0
29	0.0		31.0	0.0	9.0	0.0	0.0	0.0	0.0	19.0	3.0	0.0
30	0.0		2.0	5.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	7.0
31	0.0		2.0		28.0		0.0	0.0		9.0		1.0
<b>Max.</b>	38.0	47.0	41.0	83.0	67.0	33.0	5.1	33.0	34.0	43.0	82.0	36.0
<b>Total</b>	247.0	206.0	264.0	634.0	347.0	108.0	6.3	40.0	60.0	150.0	313.0	98.0

Annual : 2473      Max. : 83.0

Year : 1980 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	4.0	32.0
2	9.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
3	2.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	2.0
5	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	4.0
6	15.0	1.0	21.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0
7	1.0	35.0	31.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	6.0	3.0
8	0.0	0.0	0.0	0.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	24.0	0.0	7.0	7.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	4.0
10	4.0	1.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
11	21.0	5.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0
12	13.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	17.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	8.0	59.0	0.0	15.0	0.0	1.3	0.0	0.0	0.0	25.0	35.0	0.0
15	1.0	36.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	4.0	0.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
18	9.0	0.0	1.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
19	1.0	2.0	2.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
20	4.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	2.0	0.0
21	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	24.0
22	63.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
23	9.0	10.0	0.0	35.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	9.0
24	3.0	63.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	13.0
25	8.0	8.0	0.0	0.0	0.0	0.0	22.0	0.0	0.0	8.0	8.0	0.0
26	22.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	0.0
27	10.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0	0.0
28	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	0.0	4.0	5.0
29	8.0	9.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	21.0	2.0	9.0
30	5.0		45.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	13.0	6.0
31	1.0		53.0		0.0		27.0	0.0		43.0		14.0
<b>Max.</b>	63.0	63.0	62.0	37.0	19.6	1.3	27.0	1.1	47.0	43.0	75.0	44.0
<b>Total</b>	286.0	325.0	228.0	220.0	25.0	1.3	111.0	1.1	52.0	150.0	318.0	222.0

Annual : 1939      Max. : 75.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1981 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	18.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	11.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
3	7.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	8.0	25.0	6.0	7.0	12.0	0.0	0.0	0.0	0.0	0.0	9.0	24.0
5	0.0	2.0	0.0	0.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	18.0	19.0	46.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
7	25.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
8	17.0	0.0	12.0	0.0	6.0	0.0	85.0	0.0	0.0	0.0	0.0	1.0
9	0.0	10.0	7.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	17.0	5.0	18.0	3.0	6.0	0.0	0.0	0.0	0.0	7.0	2.0
11	0.0	0.0	0.0	9.0	32.0	0.0	0.0	0.0	0.0	0.0	10.0	35.0
12	10.0	0.0	69.0	0.0	0.0	0.0	0.0	0.0	0.0	41.0	0.0	0.0
13	7.0	3.0	120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	9.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	22.0	0.0
15	19.0	8.0	0.0	0.0	7.0	0.0	23.0	0.0	0.0	0.0	0.0	24.0
16	9.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
17	3.0	0.0	0.0	0.0	2.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
18	24.0	37.0	18.0	0.0	24.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0
19	49.0	0.0	21.0	15.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	17.0
20	0.0	0.0	0.0	3.0	0.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	6.0	0.0	7.0	6.0	0.0	0.0	0.0	9.0	0.0	0.0	15.0	15.0
23	11.0	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
24	0.0	10.0	11.0	0.0	0.0	17.0	0.0	0.0	0.0	17.0	6.0	0.0
25	0.0	26.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	0.0	9.0	63.0
27	9.0	0.0	8.0	0.0	0.0	18.0	0.0	0.0	0.0	11.0	0.0	0.0
28	18.0	5.0	52.0	9.0	0.0	16.0	0.0	0.0	2.0	0.0	17.0	0.0
29	0.0		4.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
30	0.0		47.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	5.0	28.0
31	0.0		37.0		0.0		0.0			0.0		0.0
<b>Max.</b>	49.0	37.0	120.0	35.0	32.0	56.0	85.0	9.0	49.0	41.0	22.0	63.0
<b>Total</b>	249.0	186.0	481.0	154.0	175.0	113.0	128.0	9.0	51.0	84.0	112.0	227.0
<b>Annual :</b>	1969		<b>Max. :</b>		120.0							

Year : 1982 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
3	0.0	17.0	0.0	0.0	5.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0
4	17.0	15.0	3.0	72.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
6	16.0	15.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	16.0	11.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
8	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	5.0
9	11.0	0.0	8.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
10	28.0	12.0	24.0	62.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	69.0
11	0.0	0.0	7.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
12	61.0	22.0	0.0	59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	17.0	8.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	30.0
14	3.0	3.0	57.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
15	0.0	9.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
16	17.0	11.0	0.0	0.0	0.0	0.0	51.0	0.0	0.0	0.0	0.0	0.0
17	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	46.0
18	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
19	41.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0
20	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
24	37.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
25	32.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	24.0	13.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	9.0
27	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	7.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
29	0.0		0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	5.0		0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.2	8.0	3.0
31	0.0		0.0		0.0		0.0			0.6		48.0
<b>Max.</b>	64.0	56.0	57.0	72.0	5.0	42.0	51.0	0.0	0.6	3.2	22.0	69.0
<b>Total</b>	404.0	245.0	225.0	329.0	5.0	42.0	51.0	0.0	1.9	3.8	79.0	352.0
<b>Annual :</b>	1738		<b>Max. :</b>		72.0							

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1983 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	9.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
2	21.0	27.0	19.0	4.0	10.0	0.0	0.0	0.0	0.0	0.0	8.0	3.0
3	23.0	61.0	4.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	6.0
4	0.0	11.0	0.0	2.0	126.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0
5	8.0	2.0	9.0	7.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	4.0	56.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	31.0	0.0
7	30.0	31.0	2.0	2.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
8	2.0	0.0	60.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	18.0
9	3.0	4.0	34.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
10	31.0	0.0	21.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	8.0
11	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	7.0
12	34.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
13	2.0	1.0	7.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
14	11.0	9.0	1.0	67.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
15	1.0	0.0	0.0	28.0	15.0	0.0	0.0	0.0	0.0	0.0	7.0	2.0
16	9.0	0.0	7.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	69.0	2.0	2.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	9.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
19	34.0	13.0	4.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
20	2.0	0.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
21	0.0	31.0	21.0	5.0	0.0	0.0	0.0	0.0	0.0	24.0	19.0	0.0
22	0.0	28.0	12.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	38.0
23	8.0	16.0	11.0	18.0	25.0	0.0	0.0	0.0	0.0	9.0	2.0	12.0
24	0.0	0.0	4.0	0.0	4.0	0.0	0.0	0.0	0.0	7.0	3.0	0.0
25	0.0	18.0	2.0	6.0	35.0	0.0	0.0	0.0	0.0	0.0	1.0	55.0
26	0.0	9.0	26.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
27	0.0	0.0	7.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	7.0
28	21.0	2.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.0
29	0.0		0.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0
30	0.0		59.0	1.0	0.0	0.0	0.0	0.0	0.0	6.0	4.0	1.0
31	36.0		24.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	36.0	69.0	60.0	67.0	126.0	2.2	0.0	0.0	0.0	24.0	55.0	55.0
<b>Total</b>	291.0	398.0	380.0	225.0	365.0	2.2	0.0	0.0	0.0	57.0	209.0	250.0
<b>Annual :</b>	2177		<b>Max. :</b>		126.0							

Year : 1984 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.0	15.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
2	2.0	0.0	13.0	0.0	37.0	0.0	0.0	0.0	0.0	15.0	0.0	11.0
3	0.0	20.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	10.0
4	10.0	21.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0
5	23.0	55.0	2.0	25.0	12.0	0.0	0.0	0.0	32.0	5.0	0.0	72.0
6	15.0	11.0	0.0	65.0	14.0	0.0	0.0	0.0	4.0	9.0	0.0	51.0
7	0.0	12.0	16.0	10.0	0.0	0.0	0.0	0.0	18.0	13.0	0.0	65.0
8	0.0	2.0	17.0	3.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
9	0.0	13.0	11.0	3.0	0.0	0.0	0.0	0.0	4.0	0.0	17.0	4.0
10	2.0	12.0	15.0	7.0	0.0	15.0	0.0	0.0	3.0	0.0	0.0	0.0
11	16.0	0.0	0.0	21.0	11.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0
12	13.0	41.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0
13	5.0	2.0	0.0	67.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	51.0
14	0.0	0.0	21.0	12.0	4.0	0.0	0.0	0.0	10.0	0.0	0.0	13.0
15	48.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	13.0	0.0	5.0
16	0.0	5.0	14.0	11.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	13.0
17	12.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	20.0	50.0	0.0
18	0.0	13.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	21.0	0.0
19	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	10.0	45.0	10.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	5.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
23	11.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
24	13.0	0.0	22.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	58.0	12.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.0	41.0
26	0.0	0.0	0.0	4.0	0.0	0.0	0.0	39.0	0.0	0.0	51.0	10.0
27	21.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0	5.0	12.0
28	11.0	4.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0
29	42.0	8.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	3.0
30	0.0		0.0	5.0	0.0	59.0	0.0	0.0	0.0	0.0	42.0	0.0
31	32.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	48.0	55.0	45.0	67.0	55.0	59.0	0.0	39.0	36.0	25.0	58.0	72.0
<b>Total</b>	280.0	336.0	205.0	318.0	177.0	74.0	0.0	39.0	145.0	146.0	326.0	401.0
<b>Annual :</b>	2447		<b>Max. :</b>		72.0							

" \* " : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1985 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	2.0	18.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	10.0	0.0	0.0	127.0	0.0	0.0	0.0	0.0	0.0	54.0
3	0.0	11.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	13.0	2.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	15.0
5	0.0	42.0	41.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	12.0
6	11.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
7	0.0	0.0	15.0	0.0	115.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
8	22.0	7.0	23.0	0.0	13.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	15.0	29.0	0.0	4.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0
10	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
12	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	5.0	3.0	1.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	39.0	24.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0
15	0.0	13.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	22.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	6.0	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	22.0
20	30.0	8.0	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0	20.0	3.0
21	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0	15.0
22	18.0	25.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0
23	5.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
24	0.0	35.0	59.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
25	136.0	0.0	22.0	7.0	0.0	0.0	0.0	0.0	0.0	32.0	3.0	0.0
26	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.0
27	0.0	0.0	13.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
28	34.0	43.0	55.0	34.0	0.0	0.0	0.0	0.0	5.0	63.0	0.0	0.0
29	17.0		12.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	13.0	0.0
30	16.0		0.0	0.0	23.0	0.0	0.0	17.0	0.0	27.0	22.0	4.0
31	0.0		35.0		0.0		0.0	0.0		0.0		10.0
<b>Max.</b>	136.0	55.0	59.0	34.0	115.0	127.0	4.0	17.0	5.0	63.0	22.0	54.0
<b>Total</b>	430.0	353.0	438.0	105.0	155.0	326.0	4.0	17.0	5.0	153.0	94.0	259.0
<b>Annual :</b>	2339		<b>Max. :</b>		136.0							

Year : 1986 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	25.0	0.0	19.0	34.0	0.0	5.0	* 0.0	* 0.0	0.0	0.0	7.0	0.0
2	0.0	17.0	35.0	18.0	0.0	70.0	* 0.0	* 0.0	0.0	47.0	0.0	47.0
3	0.0	2.0	31.0	15.0	0.0	23.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	7.0	0.0	0.0	53.0	* 0.0	* 0.0	15.0	0.0	0.0	0.0
5	82.0	12.0	36.0	4.0	0.0	20.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
6	15.0	4.0	32.0	12.0	0.0	2.0	* 0.0	* 0.0	0.0	11.0	12.0	11.0
7	0.0	35.0	0.0	5.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	26.0	0.0
8	23.0	8.0	14.0	0.0	5.0	0.0	* 0.0	* 0.0	0.0	0.0	31.0	0.0
9	7.0	6.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	7.0	0.0	7.0
10	22.0	18.0	2.0	2.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	3.0	0.0
11	22.0	43.0	0.0	67.0	27.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
12	6.0	13.0	0.0	61.0	0.0	3.0	* 0.0	* 0.0	0.0	0.0	11.0	0.0
13	5.0	5.0	6.0	7.0	0.0	62.0	* 0.0	* 0.0	0.0	14.0	0.0	14.0
14	0.0	2.0	23.0	0.0	19.0	0.0	* 20.0	* 0.0	0.0	53.0	0.0	53.0
15	11.0	21.0	12.0	0.0	0.0	3.0	* 0.0	* 0.0	0.0	10.0	0.0	10.0
16	5.0	7.0	0.0	5.0	0.0	2.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
17	7.0	5.0	0.0	54.0	0.0	10.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
18	0.0	14.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	22.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	34.0	0.0
20	6.0	7.0	2.0	0.0	0.0	0.0	* 0.0	* 0.0	5.0	0.0	0.0	0.0
21	11.0	5.0	13.0	2.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
22	3.0	39.0	4.0	0.0	13.0	3.0	* 0.0	* 1.5	0.0	0.0	0.0	0.0
23	17.0	0.0	0.0	0.0	0.0	0.0	* 3.0	* 0.0	0.0	7.0	0.0	7.0
24	12.0	24.0	0.0	16.0	0.0	0.0	* 0.0	* 0.0	24.0	0.0	0.0	0.0
25	16.0	0.0	54.0	0.0	0.0	0.0	* 0.0	* 0.0	17.0	53.0	20.0	53.0
26	24.0	0.0	23.0	10.0	0.0	2.0	* 0.0	* 0.0	0.0	0.0	23.0	0.0
27	5.0	0.0	5.0	0.0	10.0	0.0	* 0.0	* 0.0	0.0	4.0	29.0	4.0
28	4.0	12.0	53.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	0.0	0.0	0.0
29	0.0		20.0	0.0	0.0	0.0	* 0.0	* 0.0	0.0	15.0	0.0	15.0
30	45.0		16.0	0.0	0.0	11.0	* 0.0	* 0.0	0.0	45.0	0.0	45.0
31	12.0		11.0		0.0		* 0.0	* 0.0		0.0		0.0
<b>Max.</b>	82.0	43.0	54.0	67.0	27.0	70.0	* 20.0	* 1.5	24.0	53.0	34.0	53.0
<b>Total</b>	385.0	299.0	440.0	312.0	74.0	269.0	* 23.0	* 1.5	61.0	266.0	196.0	266.0
<b>Annual :</b>	* 2592.5		<b>Max. :</b>		* 82.0							

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT JEJERUK

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1987 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	20.0	4.0	0.0	15.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
2	29.0	13.0	24.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
3	10.0	5.0	6.0	0.0	9.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0
4	63.0	12.0	22.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
5	0.0	4.0	28.0	0.0	0.0	63.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	38.0
6	0.0	0.0	12.0	0.0	0.0	10.0	* 0.0	* 0.0	* 0.0	* 0.0	3.0	31.0
7	32.0	0.0	0.0	0.0	0.0	17.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	57.0
8	0.0	32.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	17.0
9	10.0	34.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	17.0
10	0.0	7.0	0.0	0.0	31.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	12.0
11	3.0	20.0	12.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	15.0
12	0.0	5.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	39.0
13	10.0	17.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.0
14	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	5.0	0.0
15	10.0	0.0	7.0	0.0	7.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	13.0	16.0
16	5.0	22.0	4.0	14.0	0.0	0.0	* 7.0	* 0.0	* 0.0	* 0.0	0.0	3.0
17	0.0	7.0	76.0	42.0	0.0	0.0	* 5.0	* 0.0	* 0.0	* 0.0	0.0	7.0
18	0.0	3.0	0.0	10.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0
19	0.0	32.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
20	2.0	29.0	0.0	2.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
21	2.0	34.0	7.0	13.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	115.0	0.0
22	3.0	12.0	0.0	82.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	43.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	17.0	7.0
24	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	40.0
25	43.0	7.0	32.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	3.0
26	5.0	19.0	13.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	4.0	18.0
27	7.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0
29	10.0		0.0	0.0	2.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	20.0	0.0
30	46.0		0.0	22.0	6.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	3.0	0.0
31	0.0		0.0		0.0		* 0.0	* 0.0		* 0.0		0.0
Max.	63.0	34.0	76.0	82.0	31.0	63.0	* 7.0	* 0.0	* 0.0	* 0.0	115.0	57.0
Total	310.0	318.0	243.0	200.0	58.0	90.0	* 12.0	* 0.0	* 0.0	* 0.0	224.0	341.0

Annual : \* 1796.0      Max. : \* 115.0

Year : 1988 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	4.0
3	0.0	6.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
4	0.0	0.0	0.0	0.0	7.0	0.0	0.0	34.0	0.0	0.0	0.0	0.0
5	0.0	46.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	35.0	5.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	2.0	2.0	3.0	34.0	7.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	2.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	5.0	1.0	4.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
10	8.0	2.0	21.0	4.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	6.0	0.5	0.0	8.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
12	18.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0
13	36.0	5.0	2.5	0.0	43.0	0.0	0.0	0.0	0.0	0.0	44.0	2.5
14	3.0	10.0	77.0	0.0	6.0	0.0	0.0	0.0	0.0	24.0	27.0	0.0
15	8.0	0.0	1.0	0.0	0.5	3.5	0.0	0.0	0.0	2.0	20.0	0.0
16	67.0	11.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	10.0	15.0	6.5
17	0.0	4.0	24.0	2.0	10.0	0.0	0.0	0.0	0.0	22.0	12.0	11.5
18	17.0	0.0	1.0	0.0	0.0	3.0	0.0	0.0	0.0	1.0	0.0	6.0
19	40.0	2.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
20	6.0	4.0	36.0	30.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	32.0
21	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
22	34.0	0.0	4.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0
23	0.0	33.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	31.0	2.0	0.5
24	12.0	0.0	34.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.5
25	55.0	0.0	8.0	0.0	1.5	0.0	0.5	0.0	0.0	0.0	6.0	0.0
26	17.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	12.0	0.0
27	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	30.0	4.0
28	13.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
29	2.0	0.0	23.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	6.0		4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	47.0		14.0		0.0		0.0	0.0		6.0		7.0
Max.	67.0	46.0	77.0	57.0	43.0	7.0	9.2	34.0	5.0	31.0	44.0	34.0
Total	462.0	151.0	281.5	152.0	103.5	23.0	9.8	34.0	5.0	126.0	184.0	142.0

Annual : 1674      Max. : 77.0

\* \* \* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1989 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.0	0.0	17.0	48.0	0.0	0.0	12.0	* 0.0	1.0	0.0	0.0	2.0
2	0.5	4.0	15.0	0.0	0.0	80.0	0.0	* 0.0	0.0	0.0	3.0	6.0
3	8.0	0.5	0.0	57.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.5	15.0
4	34.0	0.0	0.0	10.0	0.0	1.0	2.0	* 0.5	0.0	0.0	0.0	2.0
5	32.0	11.0	0.0	0.0	0.0	11.0	0.0	* 0.0	0.0	0.0	2.0	0.0
6	23.0	21.0	0.0	0.0	14.0	48.0	0.0	* 14.0	0.0	0.0	42.0	0.0
7	13.0	3.0	0.0	12.0	37.0	1.0	3.0	* 3.0	0.0	0.0	0.0	0.0
8	11.0	2.5	0.0	44.0	0.0	0.0	0.0	* 0.0	0.0	0.0	27.0	0.0
9	31.0	3.0	17.0	0.0	6.0	0.0	0.0	* 37.0	0.0	0.0	20.0	18.0
10	36.0	0.0	3.0	0.0	7.0	0.0	0.0	* 0.0	0.0	0.0	0.0	12.0
11	48.0	12.0	2.0	82.0	0.0	3.0	0.0	* 0.0	0.0	0.5	0.0	0.0
12	6.0	19.0	0.5	46.0	0.5	0.0	0.0	* 0.0	0.0	0.5	10.0	0.0
13	27.0	28.0	0.0	0.0	0.5	10.0	0.0	* 0.0	0.0	0.0	0.0	1.5
14	17.0	47.0	0.0	0.0	0.0	11.0	0.0	* 0.0	0.0	2.0	89.0	14.5
15	0.0	1.0	0.0	0.0	0.0	21.0	0.0	* 0.0	0.0	0.0	0.0	6.0
16	0.0	10.0	0.0	0.0	2.0	29.0	0.0	* 0.0	5.0	49.0	0.0	6.0
17	5.0	35.0	1.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.5	0.0
18	0.0	4.0	2.0	19.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
19	0.0	15.0	0.0	8.0	0.0	18.0	7.5	* 0.0	0.0	0.0	0.0	0.0
20	0.0	42.0	20.0	0.0	0.0	4.0	8.0	* 0.0	0.0	0.0	0.0	0.0
21	0.0	14.0	0.0	0.0	2.0	0.0	19.0	* 0.0	0.0	0.0	0.0	3.5
22	6.0	5.0	0.0	0.0	0.5	0.0	0.0	* 0.0	0.0	0.0	0.0	0.5
23	4.0	2.5	0.0	0.0	3.5	0.0	4.0	* 0.0	0.0	0.0	0.0	6.5
24	13.0	0.0	1.5	5.0	3.0	0.0	0.0	* 0.0	0.0	0.0	0.0	3.0
25	6.0	77.0	0.0	0.0	27.0	0.0	0.0	* 0.0	0.0	0.0	0.0	0.0
26	13.0	60.0	3.0	1.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0	34.0
27	10.0	16.0	5.0	0.0	7.0	0.0	0.0	* 0.0	0.0	0.0	0.0	24.0
28	13.0	5.0	1.5	0.0	25.0	0.0	16.5	* 0.0	0.0	35.0	0.0	1.0
29	0.0		0.0	7.0	35.0	0.0	0.0	* 0.0	0.0	30.0	0.0	4.0
30	0.0		0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	25.0	0.0
31	0.0		2.0		23.0			* 3.0		0.0		0.0
<b>Max.</b>	48.0	77.0	20.0	82.0	37.0	80.0	19.0	* 37.0	5.0	49.0	89.0	34.0
<b>Total</b>	359.5	437.5	90.5	339.0	193.0	237.0	72.0	* 57.5	6.0	117.0	221.0	159.5

Annual : \* 2289.5      Max. : \* 89.0

Year : 1990 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7.0	72.0	0.0	0.0	0.0	0.0	14.0	0.0	* 0.0	0.0	0.0	3.0
2	28.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	* 0.0	7.0	0.0	49.0
3	3.0	0.0	6.0	0.0	0.0	52.0	29.0	0.0	* 0.0	0.0	0.0	8.0
4	12.0	0.0	5.0	0.0	0.0	0.0	43.0	0.0	* 0.0	0.0	0.0	82.0
5	18.0	0.0	0.0	1.0	0.0	0.0	19.0	0.0	* 0.0	0.5	0.0	6.0
6	17.0	16.5	0.0	58.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	27.0
7	4.0	14.0	4.0	3.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	1.0
8	0.5	0.0	0.0	6.0	0.0	0.0	0.0	0.0	* 0.0	0.0	20.0	1.5
9	0.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	52.0
10	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
11	13.5	0.0	1.5	0.0	13.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	5.0	3.0
13	15.0	76.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	2.0	2.0
14	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	64.0
15	3.0	0.0	2.0	52.0	0.0	0.0	0.0	0.0	* 0.0	0.0	4.0	0.0
16	4.0	17.0	0.0	5.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	0.0
17	0.0	7.0	0.0	16.0	0.0	0.0	0.0	0.0	* 0.0	0.0	11.0	0.0
18	22.0	0.0	13.0	19.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	4.0
19	0.0	90.0	4.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	2.0	20.0
20	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	1.5	4.0
21	15.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	3.0	0.0	0.5
22	37.0	4.0	0.0	0.0	1.0	15.0	0.0	0.0	* 0.0	0.0	0.0	24.0
23	6.0	0.0	0.0	0.0	36.0	0.0	0.0	0.0	* 1.5	0.0	4.0	14.0
24	22.0	1.0	0.0	11.0	18.0	3.0	0.0	0.5	* 0.0	11.0	5.5	4.0
25	6.0	6.0	0.0	3.0	4.0	0.0	0.0	0.0	* 0.0	0.0	4.0	8.0
26	37.0	5.0	0.0	1.0	7.0	0.0	0.0	0.0	* 0.0	0.0	27.0	7.0
27	0.0	23.0	24.0	0.0	68.0	0.0	0.0	0.0	* 0.0	0.0	0.0	4.0
28	3.0	5.0	13.0	3.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0	71.0
29	0.0		0.0	11.0	0.0	0.0	0.0	0.0	* 0.0	12.0	0.0	8.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	* 1.0	0.0	0.0	1.0
31	61.0		0.0		0.0		0.0	0.0		0.0		2.0
<b>Max.</b>	61.0	90.0	24.0	58.0	68.0	52.0	43.0	0.5	* 1.5	12.0	27.0	82.0
<b>Total</b>	354.5	359.5	77.5	189.5	147.0	70.0	105.0	0.5	* 2.5	33.5	86.0	470.0

Annual : \* 1895.5      Max. : \* 90.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1991 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	52.0	1.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	16.0	16.0	17.0	11.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
3	1.0	0.5	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0
4	25.0	20.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
5	9.5	16.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
6	14.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
7	8.0	0.0	2.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
8	0.0	3.0	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0
9	10.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	16.0
10	35.0	5.0	11.0	12.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
11	7.0	42.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
12	34.0	3.0	0.0	13.0	0.0	7.0	0.0	0.0	0.0	0.0	30.0	22.0
13	14.5	1.5	0.0	14.0	0.0	4.0	0.0	0.0	0.0	0.0	7.0	6.0
14	57.0	1.5	3.0	4.0	0.0	1.0	0.0	0.0	0.0	0.0	11.0	41.0
15	10.0	13.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	2.0	1.0	0.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
17	0.0	29.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	3.0	0.0
18	31.0	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	15.0	0.5	22.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
20	5.0	12.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0
21	17.0	22.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0	1.0
22	12.0	3.0	29.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	5.0
23	6.0	0.0	18.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	0.0
24	13.0	6.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
25	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
26	2.0	7.0	27.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
27	0.0	64.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
28	0.0	18.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	47.0
29	5.0		0.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
31	0.0		16.0				0.0	0.0				3.0
<b>Max.</b>	57.0	64.0	35.0	47.0	4.0	7.0	0.0	0.0	0.0	8.0	57.0	75.0
<b>Total</b>	401.0	290.5	223.5	281.0	6.0	12.0	0.0	0.0	0.0	9.0	217.0	399.5
<b>Annual :</b>	1840		<b>Max. :</b>		75.0							

Year : 1992 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	1.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.0
2	0.0	11.5	0.0	10.0	0.0	72.0	0.0	0.0	27.0	0.0	1.5	0.0
3	0.5	0.0	8.0	11.0	0.0	0.0	5.0	0.0	6.0	4.5	0.0	28.0
4	24.5	8.0	0.0	2.0	13.0	0.0	0.0	0.0	0.0	8.0	0.0	20.0
5	0.0	7.0	0.0	0.0	2.0	0.0	0.0	0.0	23.0	0.0	2.0	49.0
6	0.0	34.0	0.0	0.5	0.0	3.0	0.0	0.0	0.0	0.0	7.0	5.0
7	22.0	40.0	40.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0	0.0	0.0
8	3.0	12.0	2.0	17.0	0.0	37.0	0.0	0.0	8.0	0.0	0.5	0.0
9	7.5	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	0.5	11.0
10	15.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	1.5	1.0	97.0
11	53.0	0.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	12.0
12	17.0	0.0	10.0	1.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	17.0
13	11.5	0.0	18.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
14	1.0	20.0	11.0	11.0	0.0	0.0	0.0	0.0	40.0	0.0	62.0	7.0
15	12.0	9.0	6.0	4.0	70.0	0.0	0.0	0.0	0.0	0.5	12.0	8.0
16	0.0	7.0	94.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	18.0
17	5.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0
18	6.0	24.0	17.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
19	0.0	22.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	16.0	0.0
20	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
21	1.0	17.0	7.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.5	23.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0
23	55.0	42.0	4.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	89.0	47.0
24	28.5	21.0	1.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0
25	1.5	0.0	17.0	20.0	0.0	0.0	22.0	22.0	3.0	12.5	21.0	22.0
26	1.0	0.0	40.0	12.0	2.0	0.0	20.0	20.0	0.0	0.0	18.0	0.0
27	0.0	1.2	0.0	8.0	64.0	0.0	3.0	3.0	0.0	0.0	2.0	0.0
28	0.0	20.0	3.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	2.5	0.0
29	14.5	2.0	2.0	4.0	2.0	0.0	7.0	7.0	0.0	0.0	15.0	17.0
30	8.0		0.0	0.0	75.0	0.0	3.0	3.0	0.0	0.0	7.0	0.0
31	1.0		3.0		86.0		110.0	110.0		0.0		5.0
<b>Max.</b>	55.0	42.0	94.0	20.0	86.0	72.0	110.0	110.0	40.0	37.0	89.0	97.0
<b>Total</b>	289.0	340.7	371.0	137.0	316.0	112.0	171.0	166.0	134.0	87.5	330.5	433.0
<b>Annual :</b>	2888		<b>Max. :</b>		110.0							

" \* " : supplemented by nearby station with highest correlation



**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1993 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* 19.0	10.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	5.0
2	* 14.0	0.0	0.0	36.0	43.0	0.0	0.0	0.0	0.0	* 0.0	0.0	32.0
3	* 0.0	2.0	0.0	5.0	12.0	0.0	0.0	0.0	0.0	* 0.0	0.0	13.0
4	* 46.0	31.0	45.0	0.0	2.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.5
5	* 3.0	42.0	2.0	38.0	0.0	0.0	0.0	6.0	0.0	* 0.0	0.0	0.0
6	* 0.0	7.0	0.0	35.0	19.5	59.0	0.0	0.0	0.0	* 0.0	0.0	2.0
7	* 0.0	15.0	0.5	29.5	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	3.0
8	* 61.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	25.0
9	* 1.0	2.0	0.0	10.0	0.0	2.5	0.0	0.0	0.0	* 0.0	0.0	10.0
10	* 1.5	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	8.0
11	* 0.0	0.0	40.0	50.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	5.0
12	* 3.0	0.0	8.5	9.0	0.0	37.0	0.0	0.0	0.0	* 0.0	13.0	1.0
13	* 16.5	0.0	8.0	10.5	0.0	2.0	0.0	0.0	0.0	* 0.0	13.0	1.0
14	* 0.0	0.0	0.0	5.0	0.0	15.5	0.0	0.0	0.0	* 4.0	0.0	12.0
15	* 0.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	* 0.0	43.0	0.0
16	* 64.0	6.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	* 0.0	0.0	0.0
17	* 0.0	3.0	8.0	40.0	0.0	12.0	0.0	0.0	0.0	* 0.0	0.0	0.0
18	* 0.0	26.0	8.5	2.0	0.0	37.0	0.0	0.0	0.0	* 0.0	5.5	0.0
19	* 54.0	2.0	24.0	12.0	0.0	3.0	0.0	2.0	0.0	* 0.0	0.0	18.0
20	* 32.0	7.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	* 0.0	17.0	0.5
21	* 0.0	0.0	2.5	37.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
22	* 6.0	0.0	12.0	0.0	9.0	0.0	0.0	0.0	0.0	* 0.5	0.0	11.5
23	* 43.0	7.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	19.0
24	* 15.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	35.0
25	* 11.0	2.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	7.0	5.5
26	* 11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	4.0
27	* 0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	0.0	0.0
28	* 6.0	0.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0	* 0.0	17.0	0.0
29	* 38.0		3.0	0.0	12.5	0.0	0.0	0.0	0.0	* 0.0	5.0	0.0
30	* 38.0		0.5	0.0	0.0	0.0	0.0	0.0	0.0	* 0.5	21.0	0.0
31	* 72.0		0.0		0.0		0.0	0.0		* 0.0		0.0
Max.	* 72.0	42.0	57.0	50.0	43.0	59.0	0.0	6.0	0.0	* 4.0	43.0	35.0
Total	* 555.0	176.5	260.5	345.0	98.0	170.0	0.0	8.0	0.0	* 5.0	141.5	211.0

Annual : \* 1970.5      Max. : \* 72.0

Year : 1994 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	63.0	9.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	1.0	0.0
2	8.5	51.0	3.0	40.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
3	3.0	2.0	3.0	2.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	14.0	2.0
4	1.0	53.0	22.0	10.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	43.0
5	0.0	2.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	7.5	0.0
6	0.0	8.0	8.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	2.0	21.0
7	1.0	2.0	15.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
8	0.5	0.0	48.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	1.0
9	18.0	9.0	15.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
10	12.0	17.0	0.0	58.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	10.5
11	15.0	22.0	3.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	6.0
12	10.0	0.0	47.0	0.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
13	7.0	42.0	4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	20.0
14	52.0	92.0	0.0	9.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	10.0	0.0
15	2.0	0.5	0.0	48.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	8.5
16	56.0	0.0	37.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	8.0	29.0
17	48.0	6.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	12.0	1.5
18	7.0	0.0	32.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	21.0	0.0
19	12.0	72.0	31.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	9.0	0.0
20	15.0	0.0	14.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	13.0	0.0
21	6.0	0.0	0.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	9.0	0.0
22	8.0	0.0	14.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	11.0	5.0
23	4.5	6.0	65.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
24	2.0	51.0	35.0	3.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.8	0.0	0.0
25	39.0	12.0	38.0	1.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	0.0	0.0
26	10.0	23.5	27.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.0	0.0	22.0
27	25.0	23.0	46.0	4.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	0.0	0.0
28	12.0	0.5	9.0	24.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	22.0	0.0
29	30.0		4.0	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	0.0	49.0	0.0
30	26.0		1.5	0.0	0.0	* 0.0	* 0.0	* 0.0	* 0.0	1.3	10.0	0.0
31	0.0		83.0		0.0		* 0.0	* 0.0		0.0		0.5
Max.	56.0	92.0	83.0	58.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	1.3	49.0	43.0
Total	430.5	557.5	617.5	199.0	3.0	* 0.0	* 0.0	* 0.0	* 0.0	4.1	198.5	170.0

Annual : \* 2180.1      Max. : \* 92.0

\*\* : supplemented by nearby station with highest correlation

**DAILY RAINFALL DATA AT JEJERUK**

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1995 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.0	2.0	85.0	6.0	1.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0
2	22.0	9.0	17.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	21.0	20.0	8.0	2.0	14.0	0.0	0.0	0.0	0.0	0.0	1.0	10.5
4	42.0	10.5	0.5	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	51.0	5.0	7.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	11.5
6	6.0	32.0	3.0	95.0	0.0	1.0	0.0	0.0	0.0	0.0	9.0	11.0
7	75.0	3.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
8	30.0	17.0	6.0	0.0	0.0	27.0	2.0	0.0	0.0	0.0	3.0	6.5
9	72.0	15.0	2.0	0.0	6.0	8.0	192.0	0.0	0.0	0.0	7.0	0.5
10	12.0	0.5	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0
11	15.0	9.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0
12	19.0	43.0	45.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	2.0	5.0
13	15.0	14.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0
14	0.0	13.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	8.5
15	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	10.5
16	0.0	4.0	18.0	13.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	16.5
17	2.0	8.0	83.0	18.0	1.0	2.0	0.0	0.0	0.0	18.0	0.0	5.0
18	0.0	7.0	7.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
19	1.0	14.0	52.0	1.0	7.0	52.0	0.0	0.0	0.0	4.0	0.0	0.0
20	2.0	7.0	2.0	9.0	0.0	53.0	0.0	0.0	0.0	0.0	0.0	0.0
21	43.0	6.0	0.0	0.0	0.0	37.0	0.0	0.0	0.0	0.0	42.0	0.0
22	39.0	1.0	1.0	0.0	0.0	11.0	0.0	0.0	0.0	21.0	2.0	1.0
23	0.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	7.5
24	3.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	1.0
25	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	4.0	0.5
26	3.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	27.0	1.5
27	3.0	2.0	4.0	0.0	0.0	12.0	0.0	0.0	5.0	10.0	0.0	3.0
28	0.0	5.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	71.0	0.0
29	21.0		2.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0
30	0.0		49.0	105.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
31	4.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	75.0	43.0	85.0	105.0	14.0	53.0	192.0	0.0	5.0	50.0	71.0	49.0
<b>Total</b>	512.0	273.0	502.5	343.0	29.0	234.0	201.0	0.0	5.0	168.0	222.5	158.5
<b>Annual :</b>	2649		<b>Max. :</b>		192.0							

Year : 1996 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	18.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	5.0	6.0
2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	6.0
3	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	18.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
5	12.0	3.0	4.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0
6	8.0	5.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	41.0	3.0
7	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
8	4.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	4.0	0.0
9	8.0	31.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	6.0	30.0
10	0.0	0.0	0.5	0.0	0.0	0.0	0.0	25.0	0.0	8.0	15.0	48.0
11	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
12	0.0	33.0	8.0	17.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	2.0
13	0.0	4.0	4.0	2.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	25.0
14	29.0	20.0	0.0	6.0	0.0	0.0	42.0	0.0	0.0	0.0	0.0	36.0
15	0.0	0.0	129.0	5.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	8.0
16	18.0	2.0	70.0	57.0	1.0	0.0	18.0	0.0	0.0	0.0	28.0	0.0
17	6.0	5.0	0.0	43.0	12.0	0.0	0.0	0.0	0.0	1.0	46.0	2.0
18	64.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0
19	0.0	0.0	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	4.0
20	32.0	10.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
21	22.0	14.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
22	18.0	3.0	1.0	6.0	0.0	0.0	0.0	0.0	14.0	17.0	0.0	0.0
23	0.0	45.0	9.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
24	10.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
25	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
26	0.0	3.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0
27	15.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.5	2.5	0.0	0.0	0.0	0.0	0.0	6.0	0.0	6.0	0.0	17.0
29	0.0	4.0	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	0.0		10.0		0.0
<b>Max.</b>	64.0	45.0	129.0	57.0	12.0	19.0	42.0	25.0	14.0	22.0	46.0	53.0
<b>Total</b>	246.5	254.0	287.0	217.0	14.0	19.0	60.0	47.0	14.0	116.5	196.0	275.0
<b>Annual :</b>	1746		<b>Max. :</b>		129.0							

" \* " : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT JEJERUK

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1997 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
3	0.0	29.0	0.0	0.0	0.0	0.0	1.0	11.0	0.0	0.0	0.0	2.0
4	2.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	7.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	1.0	6.0	7.0	0.5	0.0	0.0	0.0	0.0	2.0	0.0	0.0
8	9.0	34.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
9	17.0	4.0	0.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
10	3.0	5.0	2.0	8.0	169.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
11	35.0	0.0	20.0	6.0	7.0	62.0	0.0	0.0	0.0	0.0	0.0	45.0
12	0.0	15.0	0.0	7.0	17.0	2.0	0.0	0.0	0.0	0.0	0.0	46.0
13	2.0	7.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	32.0
14	10.0	32.0	0.0	14.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
15	37.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0
16	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
18	9.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	7.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
20	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
22	0.0	17.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
23	3.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	26.0
24	26.0	1.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	16.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	2.0
27	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
28	0.0	5.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
29	4.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0
31	0.0		0.0		0.0		0.0	0.0		0.0		0.0
<b>Max.</b>	37.0	34.0	25.0	16.0	169.0	62.0	1.0	11.0	0.0	7.0	18.0	50.0
<b>Total</b>	233.0	250.0	104.0	63.0	210.5	64.0	1.0	11.0	0.0	9.0	39.0	334.0

Annual : 1319      Max. : 169.0

Year : 1998 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	25.0	7.0	9.0	4.0	0.0	0.0	0.0	0.0	0.0	26.0	22.0	37.0
2	0.0	29.0	0.0	51.0	0.0	0.0	13.0	0.0	0.0	0.0	11.0	0.0
3	0.0	13.0	5.0	0.0	2.0	2.0	0.0	7.0	0.0	0.0	0.0	0.0
4	0.0	3.0	38.0	7.0	0.0	0.0	6.0	8.0	0.0	0.0	7.0	3.0
5	1.0	15.0	0.0	0.0	9.0	2.0	0.0	0.0	0.0	0.0	16.0	3.0
6	15.0	22.0	88.0	0.0	2.0	6.0	0.0	0.0	0.0	0.0	9.0	0.0
7	5.0	26.0	1.0	44.0	0.0	0.0	4.0	0.0	0.0	34.0	8.0	4.0
8	19.0	5.0	0.0	1.0	0.0	0.0	7.0	0.0	0.0	23.0	0.0	0.0
9	71.0	39.0	81.0	1.0	5.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
10	9.0	0.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
11	0.0	35.0	0.0	84.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	3.0	2.0	49.0	4.0	44.0	10.0	0.0	0.0	16.0	0.0	0.0
13	0.0	1.0	0.0	0.0	0.0	4.0	7.0	0.0	0.0	0.0	0.0	0.0
14	1.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	87.0	29.0	65.0	2.0	0.0	19.0	0.0	0.0	0.0	0.0	17.0	3.0
16	0.0	18.0	4.0	0.0	0.0	28.0	0.0	0.0	0.0	0.0	43.0	1.0
17	36.0	0.0	32.0	5.0	14.0	0.0	0.0	0.0	38.0	13.0	4.0	16.0
18	2.0	0.0	0.0	0.0	0.0	4.0	2.0	0.0	0.0	0.0	13.0	25.0
19	12.0	31.0	36.0	28.0	0.0	28.0	7.0	0.0	0.0	23.0	72.0	10.0
20	3.0	17.0	30.0	17.0	0.0	1.0	0.0	0.0	0.0	3.0	0.0	4.0
21	0.0	28.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	17.0	3.0	10.0
22	0.0	1.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	14.0	0.0	7.0
23	0.0	54.0	87.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0
24	7.0	5.0	3.0	4.0	0.0	15.0	18.0	0.0	5.0	0.0	0.0	3.0
25	2.0	0.0	0.0	3.0	0.0	1.0	0.0	0.0	2.0	0.0	0.0	0.0
26	48.0	14.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
27	23.0	0.0	1.0	6.0	0.0	17.0	19.0	0.0	0.0	0.0	0.0	25.0
28	7.0	0.0	12.0	0.0	0.0	0.0	41.0	0.0	0.0	8.0	0.0	0.0
29	0.0		37.0	1.0	18.0	22.0	6.0	0.0	4.0	17.0	22.0	0.0
30	0.0		0.0	15.0	0.0	55.0	0.0	0.0	0.0	14.0	0.0	28.0
31	27.0		12.0		0.0		8.0	0.0		12.0		3.0
<b>Max.</b>	87.0	54.0	88.0	84.0	18.0	55.0	41.0	8.0	38.0	34.0	72.0	37.0
<b>Total</b>	400.0	395.0	587.0	341.0	55.0	260.0	149.0	15.0	49.0	225.0	254.0	219.0

Annual : 2949      Max. : 88.0

\*\* : supplemented by nearby station with highest correlation

### DAILY RAINFALL DATA AT JEJERUK

Station No. : MD29  
 Basin : Madiun  
 Elevation : 550 m

Year : 1999 (unit : mm)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	9.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	2.0	0.0	11.0	0.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
3	2.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	35.4
4	9.0	9.0	0.0	0.0	9.0	12.0	0.0	0.0	0.0	0.0	26.0	5.1
5	1.0	7.0	0.0	2.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	4.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
7	13.0	3.0	92.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	27.0	0.0	7.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0	3.5
9	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	1.5
10	0.0	71.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	72.9
11	22.0	2.0	10.0	19.0	9.0	0.0	0.0	0.0	0.0	1.0	64.0	3.0
12	7.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0
13	19.0	7.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	58.0	39.0
14	0.0	27.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
15	2.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	47.0	6.0	0.0
16	0.0	19.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
17	20.0	8.0	67.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
18	0.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	2.5
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	61.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
21	2.0	17.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	6.0	15.0	3.0
22	17.0	7.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.5
23	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	37.0
24	12.0	20.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.8
25	37.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	2.0	7.6
26	18.0	27.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.5
27	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	7.6
28	14.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0
29	1.0		0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
30	38.0		68.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	13.2
31	32.0		0.0		0.0		0.0	0.0		0.0		4.1
<b>Max.</b>	61.0	71.0	92.0	19.0	48.0	12.0	0.0	0.0	0.0	47.0	64.0	72.9
<b>Total</b>	410.0	271.0	344.0	79.0	118.0	14.0	0.0	0.0	0.0	111.0	386.0	293.5

Annual : 2026                      Max. : 92.0

" \* " : supplemented by nearby station with highest correlation

***CHAPTER 3***  
***WATER LEVEL AND DISCHARGE DATA***

**CHAPTER 3 WATER LEVEL AND DISCHARGE DATA**

***3.1 Availability of Water Level and Discharge Data***



**CHAPTER 3 WATER LEVEL AND DISCHARGE DATA**

***3.2 Observed Daily Water Level and Discharge Data***



OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	(Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.98	5.18	3.30	7.14	1.90	1.07	1.14	0.50	0.45	1.50	2.50	4.72
2	1.30	3.92	2.88	6.40	1.84	1.00	0.82	0.48	0.44	4.70	2.00	3.74
3	1.38	3.32	3.46	5.62	1.82	0.95	0.70	0.45	0.43	4.52	1.53	3.00
4	1.85	4.49	4.87	3.88	1.56	0.92	0.68	0.45	0.44	4.56	1.54	3.44
5	2.10	4.52	4.50	3.02	2.93	1.40	0.63	0.45	0.44	4.50	2.03	4.54
6	3.45	3.58	3.20	3.03	4.33	1.00	0.58	0.44	0.43	4.25	2.05	2.52
7	4.48	5.17	4.01	2.85	2.40	0.89	0.57	0.44	0.43	4.20	4.25	2.71
8	4.26	3.68	4.78	3.70	2.40	0.90	0.55	0.43	0.40	4.17	2.75	1.95
9	4.06	3.45	5.48	3.60	2.50	0.77	0.88	0.45	0.43	3.50	2.25	2.17
10	4.30	5.57	6.20	3.32	2.20	0.70	1.15	0.46	0.72	3.54	1.68	3.34
11	3.38	5.97	4.80	3.24	2.14	0.70	0.63	0.45	2.64	2.85	1.74	2.35
12	3.10	4.35	5.37	3.54	2.05	0.68	0.56	0.43	5.42	2.28	1.75	2.44
13	3.08	2.97	5.54	4.00	2.83	0.70	0.58	0.44	3.00	2.40	2.57	4.75
14	3.04	5.76	5.22	2.40	3.88	0.66	0.66	0.43	3.15	3.98	3.27	5.57
15	4.15	3.82	4.30	3.75	4.42	0.64	0.80	0.45	3.02	3.05	3.40	5.40
16	2.45	5.65	3.28	2.62	4.37	0.64	0.82	0.54	4.51	1.76	3.40	4.25
17	2.34	5.26	4.84	3.37	5.82	0.60	0.74	1.04	2.88	1.70	2.60	3.18
18	3.51	5.38	3.90	6.12	4.54	0.58	0.65	1.05	2.00	1.52	2.30	2.40
19	3.20	4.40	2.54	4.50	3.87	0.60	1.52	0.75	1.67	1.55	1.88	2.00
20	2.78	2.80	2.20	6.28	2.50	1.17	1.37	0.70	1.10	2.10	3.20	1.80
21	2.52	2.78	6.02	5.35	2.95	1.05	0.85	0.62	1.02	1.92	2.35	1.70
22	2.68	4.38	5.84	3.70	2.20	1.00	0.80	0.58	1.00	2.80	1.74	2.32
23	2.23	4.32	4.62	4.40	1.94	0.87	0.72	0.57	0.82	5.80	1.60	2.95
24	3.23	2.85	4.70	4.35	3.40	0.68	0.68	0.50	0.80	5.83	1.05	2.08
25	2.84	2.52	6.30	3.50	3.13	0.57	0.55	0.47	0.78	3.60	1.80	2.43
26	2.81	3.10	4.86	2.40	3.10	0.55	0.54	0.70	0.70	3.24	2.30	1.82
27	3.42	3.27	5.52	6.20	2.37	0.54	0.55	0.50	0.72	4.40	1.62	3.00
28	5.02	3.63	6.26	4.94	2.00	0.52	0.52	0.47	0.75	3.81	1.45	2.97
29	7.07	-	7.14	4.50	1.65	0.75	0.50	0.48	2.62	3.18	1.55	2.88
30	5.90	-	6.42	2.86	1.35	0.72	0.50	0.50	1.60	3.04	1.57	2.93
31	6.08	-	7.13	-	1.20	-	0.50	0.48	-	2.78	-	4.15
Mean	3.32	4.15	4.82	4.15	2.76	0.79	0.73	0.54	1.49	3.32	2.19	3.08
Min.	0.98	2.52	2.20	2.40	1.20	0.52	0.50	0.43	0.40	1.50	1.05	1.70
Max.	7.07	5.97	7.14	7.14	5.82	1.40	1.52	1.05	5.42	5.83	4.25	5.57
Annual Mean :	2.61 (m)											

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 1975 (unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	18	653	256	1261	79	22	25	3	2	47	142	539
2	34	367	192	1008	74	19	12	3	2	534	88	333
3	39	259	283	772	72	17	8	2	2	493	49	210
4	75	486	575	359	51	15	7	2	2	502	50	279
5	98	493	488	213	199	40	6	2	2	488	91	497
6	281	304	240	214	451	19	5	2	2	434	93	145
7	484	650	384	188	131	14	5	2	2	423	434	169
8	436	321	553	325	131	15	4	2	2	417	174	84
9	394	281	733	307	142	10	14	2	2	290	114	105
10	444	758	944	259	108	8	26	2	8	296	60	263
11	269	874	558	246	102	6	6	2	160	188	65	125
12	225	455	703	296	93	7	4	2	717	117	66	135
13	221	205	750	382	185	8	5	2	210	131	151	546
14	215	812	663	131	359	7	7	2	232	378	251	758
15	413	347	444	334	470	6	11	2	213	217	273	711
16	136	780	253	157	459	6	12	4	490	67	273	434
17	124	674	567	268	829	5	9	20	192	62	155	237
18	291	706	363	920	497	5	6	21	88	48	119	131
19	240	466	147	488	357	5	48	9	60	51	77	88
20	178	181	108	969	142	27	38	8	23	98	240	70
21	145	178	889	698	202	21	13	6	20	81	125	62
22	165	462	835	325	108	19	11	5	19	181	65	121
23	112	449	516	466	83	13	8	5	12	824	54	202
24	245	188	534	455	273	7	7	3	11	832	21	96
25	187	145	976	290	229	5	4	3	10	307	70	134
26	183	225	572	131	225	4	4	8	8	246	119	72
27	276	251	744	944	127	4	4	3	8	466	56	210
28	612	312	963	592	88	4	4	3	9	346	44	205
29	1235	-	1261	488	58	9	3	3	157	237	51	192
30	853	-	1014	189	37	8	3	3	54	215	52	199
31	907	-	1257	-	28	-	3	3	-	178	-	413
Mean	308	439	605	456	206	12	10	5	91	297	121	250
Min.	18	145	108	131	28	4	3	2	2	47	21	62
Max.	1235	874	1261	1261	829	40	48	21	717	832	434	758
Annual Mean :	233 (m <sup>3</sup> /sec)											
Annual Total :	7,324 (10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.64	2.69	5.24	2.38	0.81	0.43	0.40	0.29	0.22	0.07	1.50	4.47
2	2.22	2.27	4.85	2.52	0.77	0.44	0.40	0.28	0.20	0.07	1.29	2.99
3	2.84	2.27	5.25	2.00	0.71	0.44	0.40	0.32	0.20	0.07	1.06	1.45
4	3.05	2.32	4.74	1.92	0.62	0.43	0.41	0.32	0.19	0.08	1.02	1.12
5	4.95	2.58	2.96	3.14	0.62	0.43	0.40	0.32	0.18	0.10	0.85	0.89
6	5.04	2.23	2.28	4.01	0.63	0.43	0.40	0.32	0.17	0.12	0.63	0.77
7	4.95	2.74	1.74	3.08	1.61	0.42	0.40	0.30	0.17	0.12	0.45	0.72
8	4.72	2.10	2.28	3.68	1.01	0.42	0.40	0.30	0.16	0.11	0.43	0.63
9	4.27	2.85	4.30	2.00	0.92	0.43	0.40	0.30	0.15	0.09	0.30	0.61
10	2.89	2.73	5.04	1.53	0.79	0.43	0.39	0.30	0.15	0.09	0.30	0.61
11	2.74	4.49	6.13	1.41	0.73	0.43	0.39	0.29	0.15	0.10	0.30	1.35
12	4.54	4.60	4.69	1.14	0.65	0.42	0.39	0.27	0.14	0.10	0.27	1.44
13	4.26	4.69	3.21	1.28	0.62	0.42	0.39	0.26	0.14	0.11	0.28	1.38
14	4.08	2.43	2.33	1.11	0.62	0.43	0.38	0.25	0.14	0.42	0.32	1.51
15	3.96	1.94	2.30	1.94	0.60	0.43	0.38	0.25	0.14	0.54	1.27	1.07
16	4.59	1.51	2.72	1.38	0.57	0.43	0.37	0.24	0.14	1.00	0.86	0.87
17	5.93	2.74	2.51	1.20	0.55	0.43	0.37	0.24	0.14	3.23	0.57	0.80
18	5.92	1.96	2.31	1.21	0.53	0.43	0.36	0.23	0.13	1.10	1.74	0.59
19	5.53	2.34	2.17	1.27	0.52	0.43	0.36	0.24	0.13	0.68	1.02	0.53
20	5.31	2.60	2.65	1.97	0.50	0.43	0.35	0.22	0.12	0.65	0.84	0.50
21	4.13	1.90	2.61	1.52	0.50	0.42	0.35	0.22	0.12	0.62	0.89	0.45
22	3.35	1.88	2.39	1.18	0.50	0.42	0.35	0.22	0.10	0.55	2.26	0.43
23	4.25	1.87	1.80	1.00	0.49	0.42	0.34	0.21	0.10	0.65	1.83	0.41
24	4.71	3.89	1.60	1.01	0.47	0.42	0.33	0.20	0.09	0.61	1.64	0.40
25	4.08	2.84	1.39	1.07	0.45	0.41	0.33	0.20	0.09	0.56	1.07	0.37
26	4.53	2.49	1.24	1.03	0.44	0.41	0.33	0.22	0.09	0.54	3.75	0.35
27	2.93	3.31	1.78	1.03	0.44	0.41	0.32	0.23	0.08	1.04	3.53	0.35
28	2.20	2.16	3.21	1.00	0.44	0.40	0.30	0.23	0.08	0.82	2.71	1.67
29	1.89	2.12	1.76	0.94	0.43	0.40	0.30	0.23	0.08	0.80	1.23	1.68
30	1.65	-	2.56	0.87	0.43	0.40	0.30	0.23	0.07	0.72	0.83	2.03
31	3.29	-	4.44	-	0.43	-	0.29	0.23	-	1.05	-	1.54
Mean	3.92	2.66	3.05	1.69	0.63	0.42	0.36	0.26	0.14	0.54	1.17	1.10
Min.	1.65	1.51	1.24	0.87	0.43	0.40	0.29	0.20	0.07	0.07	0.27	0.35
Max.	5.93	4.69	6.13	4.01	1.61	0.44	0.41	0.32	0.22	3.23	3.75	4.47

Annual Mean : 1.33 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	148	112	485	125	27	14	13	10	9	6	61	365
2	111	115	422	137	25	14	13	10	8	6	49	182
3	167	115	487	94	23	14	13	11	8	6	38	87
4	188	120	405	89	20	14	14	11	8	6	36	41
5	438	142	179	197	20	14	13	11	8	6	29	30
6	453	112	116	301	20	14	13	11	8	7	20	25
7	438	157	76	191	68	14	13	11	8	7	15	24
8	402	102	116	259	36	14	13	11	7	6	14	20
9	337	168	341	94	32	14	13	11	7	6	11	20
10	172	156	453	63	26	14	13	11	7	6	11	20
11	157	368	646	56	24	14	13	10	7	6	11	53
12	375	384	398	42	21	14	13	10	7	6	10	58
13	335	398	205	49	20	14	13	10	7	6	10	54
14	311	129	120	40	20	14	22	9	7	14	11	62
15	295	90	118	90	19	14	13	9	7	17	48	38
16	438	62	155	54	18	14	12	9	7	35	29	29
17	608	157	136	45	18	14	12	9	7	207	18	27
18	606	92	119	45	17	14	12	9	7	40	76	19
19	535	121	107	48	17	14	12	9	7	22	36	17
20	497	144	149	92	16	14	12	9	7	21	28	16
21	317	87	145	62	16	14	12	9	7	20	30	15
22	221	86	125	44	16	14	12	9	6	18	115	14
23	334	85	80	35	16	14	12	9	6	21	82	14
24	401	286	67	36	15	14	11	8	6	16	70	13
25	311	167	55	38	15	14	11	8	6	18	38	12
26	374	134	47	41	14	14	11	9	6	17	268	12
27	176	216	79	36	14	14	11	10	6	37	241	12
28	110	107	205	35	14	13	11	10	6	48	154	72
29	87	107	78	32	14	13	11	10	6	27	46	72
30	70	-	140	29	14	13	11	10	6	24	28	97
31	214	-	361	-	14	-	10	10	-	37	-	64
Mean	310	158	213	83	21	14	13	10	7	23	54	51
Min.	70	62	47	29	14	13	10	8	6	6	10	12
Max.	608	398	646	301	68	14	22	11	9	207	268	365

Annual Mean : 80 (m<sup>3</sup>/sec)

Annual Total : 2,510 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.17	1.83	4.34	2.82	1.55	1.43	0.56	0.15	0.07	0.03	0.03	0.55
2	1.14	2.46	3.11	3.09	1.43	1.37	0.52	0.15	0.07	0.03	0.03	2.04
3	0.94	1.98	2.86	4.08	0.79	1.37	0.50	0.15	0.07	0.03	0.03	0.96
4	1.02	2.59	4.32	2.00	0.67	1.77	0.44	0.14	0.06	0.03	0.03	0.85
5	1.31	1.90	4.19	1.91	0.64	1.91	0.42	0.14	0.06	0.03	0.03	0.31
6	1.65	2.74	4.02	2.12	0.63	2.13	0.40	0.14	0.05	0.03	0.03	0.20
7	1.02	4.56	2.56	2.01	0.61	2.62	0.36	0.14	0.05	0.03	0.03	1.21
8	0.95	3.20	3.94	5.09	0.64	2.08	0.33	0.14	0.05	0.03	0.03	1.82
9	1.58	3.61	5.06	4.08	0.57	4.49	0.32	0.14	0.05	0.03	0.03	2.14
10	1.45	2.61	4.25	3.70	0.53	2.51	0.31	0.13	0.04	0.03	0.03	1.02
11	0.89	3.63	3.99	4.02	0.57	4.27	0.30	0.13	0.04	0.03	0.03	2.02
12	0.81	2.78	3.09	2.67	0.64	4.20	0.30	0.13	0.04	0.03	0.03	1.55
13	0.63	2.89	2.22	1.72	0.60	2.11	0.28	0.13	0.04	0.03	0.03	1.21
14	0.80	2.60	2.49	1.17	0.48	1.58	0.28	0.13	0.04	0.03	0.03	0.56
15	0.67	3.99	1.89	1.31	0.50	1.09	0.26	0.12	0.04	0.03	0.03	0.40
16	0.66	2.78	2.31	0.95	0.40	0.92	0.25	0.12	0.04	0.03	0.03	0.41
17	0.77	1.93	1.97	0.95	0.42	0.87	0.25	0.12	0.04	0.03	0.03	0.37
18	0.61	1.49	1.74	0.81	0.42	0.76	0.25	0.12	0.04	0.03	0.03	0.28
19	6.02	1.74	2.44	0.90	0.40	0.70	0.24	0.12	0.03	0.03	0.03	0.18
20	5.76	3.26	1.68	0.79	0.40	0.95	0.22	0.10	0.03	0.03	0.03	0.08
21	5.25	4.04	1.92	0.73	0.37	0.85	0.22	0.10	0.03	0.03	0.03	0.02
22	4.67	4.13	2.60	4.34	0.40	2.59	0.22	0.10	0.03	0.03	0.03	0.02
23	5.26	3.42	5.18	4.08	1.52	1.98	0.20	0.10	0.03	0.03	0.36	0.02
24	5.48	4.41	3.73	2.77	1.16	1.73	0.20	0.10	0.03	0.03	0.73	0.62
25	5.78	3.55	2.55	3.06	1.05	1.21	0.20	0.10	0.03	0.03	0.67	2.17
26	4.34	2.49	2.70	2.01	0.64	0.98	0.19	0.10	0.03	0.03	0.51	1.39
27	2.41	4.55	2.54	1.72	0.41	0.70	0.19	0.09	0.03	0.03	0.36	1.04
28	2.39	5.25	2.70	1.31	0.64	0.67	0.18	0.09	0.03	0.03	0.11	1.61
29	2.19	-	1.61	0.85	1.48	0.63	0.17	0.09	0.03	0.03	0.11	0.91
30	1.86	-	2.52	1.43	1.86	0.60	0.17	0.08	0.03	0.03	0.11	0.82
31	2.19	-	4.18	-	0.90	-	0.16	0.08	-	0.03	-	2.77
Mean	2.31	3.09	3.05	2.28	0.75	1.70	0.29	0.12	0.04	0.03	0.12	0.95
Min.	0.61	1.49	1.61	0.73	0.37	0.60	0.16	0.08	0.03	0.03	0.03	0.02
Max.	6.02	5.25	5.18	5.09	1.86	4.49	0.56	0.15	0.07	0.03	0.73	2.77

Annual Mean : 1.23 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	43	82	347	165	64	57	18	7	6	5	5	18
2	42	132	195	192	57	54	17	7	6	5	5	98
3	32	93	169	311	26	54	16	7	6	5	5	33
4	36	143	344	95	22	78	14	7	5	5	5	29
5	51	87	326	88	20	88	14	7	5	5	5	14
6	70	157	303	104	21	105	13	7	5	5	5	8
7	36	378	141	95	20	146	12	7	5	5	5	45
8	33	204	292	461	21	101	11	7	5	5	5	82
9	66	215	456	311	18	368	11	7	5	5	5	105
10	58	145	334	269	17	136	11	7	5	5	5	36
11	30	254	299	303	18	337	11	7	5	5	5	96
12	27	161	192	145	21	327	11	7	5	5	5	64
13	21	172	112	75	19	103	10	7	5	5	5	45
14	27	144	134	43	16	66	10	7	5	5	5	18
15	22	294	87	51	16	39	7	7	5	5	5	13
16	22	161	119	33	13	32	10	7	5	5	5	14
17	26	90	93	33	14	29	10	7	5	5	5	12
18	20	61	76	27	14	25	10	7	5	5	5	10
19	625	76	130	31	13	23	9	7	5	5	5	8
20	577	211	72	26	13	33	9	6	5	5	5	6
21	487	306	89	24	12	30	9	6	5	5	5	5
22	395	318	144	347	13	143	9	6	5	5	5	5
23	489	229	476	311	63	93	8	6	5	5	12	5
24	527	357	266	160	43	75	8	6	5	5	24	20
25	580	244	140	89	37	45	8	6	5	5	22	108
26	347	134	154	95	21	34	8	6	5	5	16	55
27	127	377	139	75	14	23	8	6	5	5	12	37
28	126	488	154	68	21	22	8	6	5	5	7	68
29	109	-	68	29	60	21	8	6	5	5	7	31
30	85	-	137	57	85	19	8	6	5	5	7	27
31	109	-	324	-	31	-	8	6	5	5	-	160
Mean	169	204	204	137	27	90	10	7	5	5	7	41
Min.	20	61	68	24	12	19	7	6	5	5	5	5
Max.	625	488	476	461	85	368	18	7	6	5	24	160

Annual Mean : 76 (m<sup>3</sup>/sec) Annual Total : 2,356 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.07	1.94	1.37	1.91	2.01	2.15	2.57	2.44	0.50	0.57	1.29	0.83
2	2.65	1.39	1.34	1.40	2.68	1.99	3.32	2.11	0.47	0.50	1.19	4.48
3	1.77	1.86	1.29	2.51	1.76	1.51	3.42	1.63	0.52	0.47	1.70	4.50
4	1.04	1.44	2.62	2.26	1.74	1.65	2.59	1.18	2.45	2.49	0.49	2.94
5	3.86	2.22	2.22	1.43	4.53	3.25	3.68	1.86	2.08	1.46	0.45	1.70
6	2.96	2.99	2.08	1.49	2.81	1.98	2.83	1.67	1.40	1.05	1.02	1.39
7	3.06	2.90	3.36	1.30	2.23	2.18	1.98	1.04	1.31	0.99	1.52	0.98
8	2.03	1.62	3.07	1.32	1.53	1.88	1.91	0.86	1.33	0.85	2.11	1.40
9	2.28	1.35	2.54	1.60	1.23	2.29	2.20	0.76	1.54	0.70	1.86	1.42
10	3.45	2.40	2.30	2.41	1.11	2.58	2.28	0.57	2.35	0.62	2.44	1.72
11	2.77	2.10	2.86	1.57	1.17	1.81	1.74	0.54	1.51	0.57	1.96	4.01
12	2.06	2.08	3.78	2.37	1.17	1.83	1.88	0.50	1.30	0.50	1.62	3.49
13	4.30	1.41	3.78	2.61	1.13	1.28	2.59	0.50	1.24	0.44	1.45	3.58
14	2.14	1.11	3.73	1.56	1.98	3.48	2.11	0.47	1.20	0.36	2.59	2.01
15	2.10	0.97	2.43	1.52	2.09	1.67	1.55	0.48	0.96	0.34	1.43	1.33
16	2.15	1.16	5.34	1.40	2.21	1.34	1.49	0.65	0.97	0.30	1.32	1.31
17	2.17	1.45	3.08	0.99	1.86	2.57	1.05	3.05	0.94	0.32	1.53	1.44
18	2.34	0.98	2.62	1.05	1.46	2.01	0.90	2.57	0.88	1.38	1.16	1.85
19	3.74	1.09	2.85	1.06	1.57	4.07	0.80	1.74	0.80	0.65	1.40	2.20
20	3.00	3.12	3.56	1.03	1.21	2.33	0.70	3.84	0.77	0.71	1.27	3.12
21	1.95	5.52	3.29	0.87	1.24	1.68	0.61	2.03	0.77	0.84	1.31	4.01
22	5.09	3.07	4.83	0.70	1.35	1.48	0.60	1.46	1.04	1.59	0.93	2.78
23	3.58	3.06	4.66	0.65	1.33	1.20	0.57	1.00	0.93	1.22	0.73	2.08
24	4.96	1.73	2.43	0.64	1.11	1.16	0.92	0.76	0.90	1.20	0.56	1.65
25	3.93	1.61	1.92	0.69	1.04	1.14	0.72	0.71	0.85	1.14	0.53	1.45
26	2.44	3.53	1.41	0.67	0.99	4.48	0.69	0.67	0.74	1.51	0.46	1.41
27	3.00	3.01	1.36	1.16	0.94	3.42	0.61	0.64	0.67	2.08	0.45	1.52
28	2.47	1.87	1.54	1.58	0.80	1.97	0.57	0.56	0.66	1.72	0.40	1.37
29	1.61	-	2.11	1.12	0.85	1.45	0.55	0.50	0.62	1.52	0.37	1.76
30	3.33	-	2.89	1.02	0.97	4.51	0.54	0.52	0.60	0.83	0.78	3.49
31	3.27	-	2.75	-	0.23	-	0.52	0.51	-	0.93	-	4.27
Mean	2.89	2.11	2.76	1.40	1.56	2.21	1.56	1.22	1.08	0.96	1.21	2.31
Min.	1.04	0.97	1.29	0.64	0.23	1.14	0.52	0.47	0.47	0.30	0.37	0.83
Max.	5.09	5.52	5.34	2.61	4.53	4.51	3.68	3.84	2.45	2.49	2.59	4.50
Annual Mean :	1.77 (m)											

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	309	90	54	88	95	106	141	128	16	18	49	28
2	149	55	52	55	151	94	217	103	15	16	44	367
3	78	84	49	49	78	62	229	69	17	15	74	369
4	37	85	146	136	76	70	143	44	131	134	16	177
5	286	58	112	115	374	209	259	84	100	59	15	74
6	179	182	101	57	164	93	166	72	55	37	36	55
7	189	173	222	50	112	108	93	37	50	35	62	34
8	97	69	190	51	63	86	88	29	51	29	103	55
9	117	53	139	67	46	117	110	25	64	23	84	56
10	232	126	118	127	40	142	116	18	122	20	130	74
11	160	102	169	65	43	81	76	17	62	18	92	301
12	99	101	272	124	143	82	86	16	50	16	69	237
13	340	56	272	145	41	49	143	16	47	14	58	247
14	105	40	266	65	93	235	103	15	45	13	143	95
15	102	34	129	62	101	72	64	16	33	22	57	51
16	106	43	502	55	111	52	61	21	34	11	51	50
17	108	58	191	35	84	141	37	188	32	11	63	58
18	121	34	146	37	59	95	31	141	30	54	43	84
19	267	39	168	38	65	359	27	76	26	21	55	110
20	183	196	245	36	45	120	23	279	25	23	48	195
21	91	534	214	29	47	72	20	97	25	28	50	301
22	460	190	419	23	53	60	19	59	37	67	32	161
23	248	189	393	21	51	45	18	35	32	46	24	100
24	440	76	129	21	40	43	32	25	31	45	18	70
25	291	68	89	22	37	42	24	23	28	42	17	58
26	130	242	56	22	35	367	23	22	24	62	15	56
27	183	184	53	43	31	229	20	21	22	100	15	62
28	133	85	64	66	27	921	18	18	21	75	13	54
29	68	-	103	41	29	58	18	16	20	62	12	78
30	218	-	172	36	24	371	17	17	19	28	26	237
31	212	-	158	-	112	-	17	16	-	32	-	337
Mean	185	116	174	59	80	153	79	56	42	38	50	137
Min.	37	34	49	21	24	42	17	15	15	11	12	28
Max.	460	534	502	145	374	921	259	279	131	134	143	369
Annual Mean :	97 (m <sup>3</sup> /sec)											
Annual Total :	3,074 (10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	(Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.64	1.00	3.37	1.90	2.35	4.15	0.71	0.21	0.04	0.04	0.39	0.84
2	3.74	2.25	3.46	3.68	3.60	1.99	0.73	0.20	0.04	0.04	0.36	0.77
3	2.73	4.39	2.70	3.79	2.81	1.81	0.64	0.20	0.04	0.04	0.35	0.72
4	2.06	3.97	2.75	4.30	3.60	1.31	0.56	0.20	0.04	0.04	0.61	2.24
5	2.45	2.07	1.94	5.24	6.72	1.43	0.53	0.17	0.04	0.04	0.53	2.21
6	1.67	2.11	2.98	3.56	5.77	1.45	0.50	0.15	0.04	0.04	0.72	2.46
7	1.67	2.91	2.09	4.49	4.19	1.21	0.50	0.14	0.04	0.04	0.61	3.35
8	1.44	2.77	2.62	3.32	2.57	1.51	0.48	0.13	0.04	0.04	0.59	1.77
9	2.33	2.58	2.00	2.55	2.80	1.20	0.47	0.12	0.04	0.04	0.54	1.37
10	1.76	3.18	3.39	3.21	3.85	1.08	0.47	0.12	0.04	0.04	0.43	0.86
11	3.07	2.52	3.67	2.19	2.54	1.31	0.98	0.10	0.04	0.04	0.32	0.79
12	3.52	2.11	3.11	4.34	1.85	1.13	0.82	0.10	0.04	0.04	0.50	0.57
13	2.91	1.81	3.76	2.94	1.67	1.03	0.75	0.10	0.04	0.04	0.66	0.64
14	2.94	1.74	5.67	3.46	1.36	0.94	0.73	0.10	0.04	0.04	0.54	0.66
15	3.93	2.76	5.13	3.46	1.21	0.90	0.70	0.10	0.04	0.04	0.52	0.68
16	2.49	2.79	3.18	4.24	1.36	0.88	0.61	0.10	0.04	0.04	3.03	1.61
17	2.82	3.60	2.12	3.21	1.21	0.85	0.55	0.10	0.04	0.04	2.22	0.67
18	2.11	3.78	1.62	1.95	1.30	0.73	0.53	0.10	0.04	0.04	1.71	0.69
19	3.40	2.86	3.58	1.93	3.84	0.68	0.51	0.10	0.04	0.04	1.69	0.87
20	3.07	2.20	3.17	1.95	3.64	0.64	0.46	0.08	0.04	0.04	1.46	0.78
21	2.57	4.28	3.48	2.42	3.01	0.60	0.40	0.07	0.04	0.04	1.06	1.78
22	3.03	2.60	2.85	2.50	2.86	0.58	0.40	0.07	0.04	0.04	1.00	2.51
23	2.42	3.46	1.89	3.03	2.73	0.54	0.38	0.07	0.04	0.23	0.89	3.18
24	3.45	2.01	2.28	3.91	2.73	0.52	0.37	0.06	0.04	0.28	0.79	3.47
25	4.14	2.91	2.49	3.06	3.27	0.52	0.31	0.06	0.04	0.29	0.75	2.10
26	4.94	2.60	3.59	4.18	1.31	0.50	0.30	0.05	0.04	0.18	0.70	4.60
27	3.42	3.50	2.93	2.81	1.24	0.50	0.30	0.05	0.04	0.15	0.82	4.92
28	2.30	3.31	2.97	2.80	1.32	0.53	0.27	0.05	0.04	0.12	0.86	3.40
29	1.51	-	4.05	3.36	1.26	0.54	0.27	0.04	0.04	0.21	0.82	1.96
30	1.35	-	3.00	2.68	1.29	1.23	0.27	0.04	0.04	0.27	0.85	1.68
31	1.09	-	2.32	-	1.24	-	0.24	0.04	-	0.32	-	1.89
Mean	2.71	2.79	3.04	3.22	2.60	1.08	0.51	0.10	0.04	0.09	0.88	1.81
Min.	1.09	1.00	1.62	1.90	1.21	0.50	0.24	0.04	0.04	0.32	0.57	1.21
Max.	4.94	4.39	5.67	5.24	6.72	4.15	0.98	0.21	0.04	0.32	3.03	4.92

Annual Mean : 1.57 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	(unit : m <sup>3</sup> /sec)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	261	39	230	93	129	326	26	10	6	6	15	31	
2	274	120	240	266	257	100	27	10	6	6	14	28	
3	163	359	160	280	171	87	23	10	6	6	14	26	
4	105	302	165	346	257	55	20	10	6	6	22	120	
5	138	106	96	487	755	62	19	9	6	6	19	117	
6	77	109	188	252	576	63	18	8	6	6	26	138	
7	77	181	108	373	331	49	18	8	6	6	22	228	
8	62	167	153	224	148	67	18	8	6	6	21	84	
9	127	149	101	146	170	49	17	8	6	6	20	58	
10	83	209	232	212	287	43	17	8	6	6	16	32	
11	197	144	265	116	146	55	38	7	6	6	13	29	
12	247	109	202	352	90	45	30	7	6	6	18	21	
13	181	87	276	184	77	40	28	7	6	6	24	23	
14	184	82	559	240	58	36	27	7	6	6	20	24	
15	297	166	469	240	49	34	26	7	6	6	19	25	
16	141	169	209	338	58	33	22	7	6	6	193	73	
17	172	257	110	212	49	32	20	7	6	6	118	24	
18	109	279	74	97	54	27	19	7	6	6	80	25	
19	233	176	254	95	286	25	19	7	6	6	78	33	
20	197	116	208	97	261	23	17	7	6	6	64	29	
21	148	344	243	135	191	22	15	7	6	6	42	85	
22	193	151	175	142	176	21	15	7	6	6	39	143	
23	135	240	92	193	163	20	14	7	6	10	34	209	
24	239	101	123	295	163	19	14	6	6	12	29	241	
25	325	181	141	196	219	19	12	6	6	12	28	108	
26	440	151	255	330	55	18	12	6	6	9	26	389	
27	236	245	183	171	51	18	12	6	6	8	30	437	
28	125	223	187	170	55	19	11	6	6	8	32	233	
29	67	-	313	229	52	20	11	6	6	10	30	98	
30	57	-	190	159	54	50	11	6	6	11	32	78	
31	43	-	126	-	51	-	11	6	6	13	-	92	
Mean	172	177	204	222	175	49	19	7	6	6	7	38	106
Min.	43	39	74	93	49	18	11	6	6	6	6	13	21
Max.	440	359	559	487	755	326	38	10	6	13	193	437	

Annual Mean : 99 (m<sup>3</sup>/sec)

Annual Total : 3,098 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.31	3.15	2.21	1.89	2.30	0.49	0.08	0.18	0.09	-0.16	1.04	2.82
2	2.49	2.92	2.55	1.89	1.75	0.49	0.08	0.15	0.28	-0.17	1.36	2.21
3	1.49	3.35	1.71	2.66	1.22	0.24	0.08	1.12	0.23	-0.16	1.49	2.08
4	1.37	1.89	2.21	2.18	1.34	0.18	0.07	0.11	0.11	-0.16	1.48	2.21
5	1.91	1.58	1.94	2.03	1.31	0.12	0.06	0.10	0.08	-0.18	0.92	2.27
6	1.49	1.60	1.45	3.07	1.64	0.10	0.06	0.11	0.06	-0.18	0.53	2.85
7	1.48	5.10	3.25	2.21	2.40	0.08	0.07	0.13	0.04	-0.18	0.71	2.10
8	1.55	3.19	2.35	3.04	2.10	0.07	0.10	0.30	0.02	-0.20	1.23	1.76
9	3.67	2.15	2.74	3.10	1.61	0.04	0.31	0.57	0.02	-0.23	1.41	2.07
10	4.25	3.07	2.58	3.27	0.88	0.08	0.21	0.39	0.02	-0.24	1.51	2.09
11	3.30	4.06	2.84	2.71	0.74	0.15	0.18	0.30	-0.18	-0.25	1.34	3.37
12	3.18	3.25	2.11	1.80	0.67	0.19	0.16	0.26	-0.16	-0.24	1.17	2.77
13	2.51	3.41	1.81	2.25	0.57	0.18	0.16	0.24	-0.16	-0.22	0.90	3.08
14	2.58	3.83	1.44	2.11	0.50	0.19	0.16	0.23	-0.16	-0.27	1.43	2.25
15	1.53	3.67	1.45	4.40	0.42	0.20	0.17	0.21	-0.18	0.39	1.40	1.97
16	1.46	3.11	1.49	4.68	0.28	0.20	0.36	0.18	-0.17	0.31	1.23	1.84
17	1.51	2.41	1.85	5.50	0.25	0.20	0.29	0.24	-0.18	0.18	1.65	1.82
18	1.10	1.61	4.50	5.12	0.22	0.20	0.19	0.26	-0.18	0.20	1.74	1.87
19	1.49	1.93	4.12	3.28	0.19	0.28	0.12	0.26	-0.18	0.20	1.33	1.61
20	1.23	2.25	2.10	2.10	0.16	0.29	0.11	0.27	-0.18	0.21	1.85	1.35
21	1.81	4.11	1.78	2.26	0.11	0.28	0.10	0.21	-0.19	0.18	1.86	1.29
22	4.00	4.42	1.20	1.64	0.08	0.33	0.09	0.18	-0.18	0.16	1.79	1.27
23	2.57	4.72	0.98	1.53	0.07	0.21	0.09	0.16	-0.18	0.21	1.73	1.65
24	2.47	3.53	1.55	3.28	0.06	0.17	0.17	0.14	-0.19	0.60	1.79	2.30
25	3.37	2.55	2.88	2.42	0.04	0.13	0.10	0.10	-0.20	0.49	3.71	1.84
26	3.56	2.06	1.46	2.26	0.06	0.12	0.10	0.09	-0.19	0.31	3.10	1.27
27	1.95	1.57	0.79	2.01	2.17	0.11	0.10	0.08	-0.17	0.25	3.05	1.27
28	1.39	1.43	0.71	2.57	0.88	0.10	0.10	0.08	-0.16	0.25	3.08	1.12
29	2.58	2.77	2.58	2.50	0.59	0.09	0.10	0.08	-0.16	0.82	3.81	3.09
30	4.68	-	2.14	3.15	0.38	0.08	0.10	0.06	-0.16	2.06	3.29	2.41
31	4.26	-	3.91	-	0.35	-	0.17	0.06	-	1.31	-	2.70
Mean	2.44	2.93	2.15	2.76	0.82	0.19	0.14	0.22	-0.09	0.17	1.76	2.08
Min.	1.10	1.43	0.71	1.53	0.04	0.04	0.06	0.06	-0.20	-0.27	0.53	1.12
Max.	4.68	5.10	4.50	5.50	2.40	0.49	0.36	1.12	0.28	2.06	3.81	3.37

Annual Mean : 1.30 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	223	206	117	92	125	18	7	9	7	3	41	172
2	141	182	146	92	83	18	7	8	12	3	58	117
3	66	228	80	157	50	11	7	45	10	3	66	107
4	58	92	117	115	57	9	7	8	8	3	65	117
5	94	71	96	103	55	8	6	7	7	2	35	122
6	66	72	63	197	75	7	6	8	6	2	19	175
7	65	465	217	117	133	7	7	8	6	2	26	108
8	69	210	129	194	108	7	7	12	6	2	50	83
9	265	112	164	201	73	6	12	21	6	2	61	106
10	340	197	149	219	33	7	10	15	6	2	67	108
11	222	314	174	161	27	8	9	12	2	2	57	230
12	209	217	109	86	24	9	9	11	3	2	47	167
13	143	235	87	120	21	9	9	11	3	2	34	198
14	149	285	62	109	18	9	9	10	3	1	62	120
15	68	265	63	360	16	10	9	10	2	15	60	98
16	64	202	66	400	12	10	14	9	3	12	50	89
17	67	134	90	530	11	10	12	11	2	9	76	87
18	44	73	374	468	10	10	9	11	2	10	82	91
19	66	95	322	220	9	12	8	11	2	10	56	73
20	50	120	108	108	9	12	8	11	2	10	90	57
21	87	321	85	121	8	12	7	10	2	9	90	54
22	306	363	49	75	7	13	7	9	2	9	85	53
23	148	406	38	68	7	10	7	9	2	10	81	76
24	139	248	69	220	6	9	9	8	2	22	85	125
25	230	146	178	135	6	8	7	7	2	18	270	89
26	252	105	64	121	6	8	7	7	2	12	201	53
27	97	71	29	101	114	8	7	7	3	11	195	53
28	59	62	26	148	33	7	7	7	3	11	198	45
29	149	167	149	142	21	7	7	7	3	30	282	199
30	400	-	112	206	14	7	7	6	3	105	221	134
31	341	-	295	-	14	-	9	6	-	55	-	160
Mean	151	196	123	180	38	9	8	11	4	13	94	112
Min.	44	62	26	68	6	6	6	6	2	1	19	45
Max.	400	465	374	530	133	18	14	45	12	105	282	230

Annual Mean : 78 (m<sup>3</sup>/sec)

Annual Total : 2,439 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.35	3.88	2.89	4.90	1.93	0.66	0.43	0.16	0.24	1.63	0.83	3.13
2	1.32	3.59	3.38	4.62	3.08	0.45	0.36	0.05	0.19	1.63	0.80	3.72
3	1.61	3.85	3.13	3.02	1.75	0.54	0.35	-0.16	0.16	0.69	0.50	2.81
4	1.85	4.10	2.77	3.26	1.87	0.37	0.32	-0.18	0.16	2.31	0.44	4.87
5	1.24	4.59	2.28	2.79	1.92	0.31	0.34	-0.18	0.16	2.27	1.15	3.83
6	2.09	4.23	4.03	2.51	2.69	0.24	1.25	-0.18	0.18	1.64	0.65	2.96
7	1.68	3.89	3.32	2.32	2.02	0.24	1.80	-0.18	0.22	1.00	0.50	2.48
8	3.58	3.39	3.05	2.30	3.00	0.21	1.02	-0.18	-0.22	0.64	0.49	2.58
9	2.16	4.79	3.45	2.14	2.27	0.20	0.67	-0.18	-0.20	0.93	0.18	2.60
10	1.55	3.55	3.23	1.95	1.77	0.19	0.63	-0.20	-0.19	1.07	0.36	4.48
11	0.98	2.95	3.09	1.35	1.46	0.20	0.83	-0.20	-0.18	2.42	2.63	3.18
12	0.93	2.78	3.63	1.37	1.25	0.20	1.05	-0.20	-0.18	1.46	2.46	2.69
13	1.04	2.37	3.28	1.41	1.04	0.17	0.79	-0.20	-0.18	0.71	2.11	2.52
14	3.33	1.93	3.16	1.29	2.93	0.24	1.14	-0.20	-0.18	0.45	1.95	2.75
15	2.35	2.60	4.06	0.99	2.20	0.24	2.20	-0.22	-0.19	0.36	1.33	2.37
16	1.63	2.66	3.56	1.10	1.89	0.26	1.96	-0.22	-0.19	0.37	2.01	2.25
17	2.21	2.53	3.41	1.29	2.47	0.26	1.65	-0.23	-0.18	0.44	2.89	2.07
18	2.34	4.01	3.05	1.17	3.69	0.24	1.69	-0.24	-0.18	0.63	2.89	1.87
19	3.31	3.72	3.64	1.92	3.33	0.50	1.08	-0.24	-0.18	0.42	3.04	2.10
20	2.52	3.45	3.87	2.13	1.91	0.54	0.72	-0.24	-0.18	0.37	2.71	1.90
21	2.54	3.12	2.43	1.62	1.34	0.51	0.49	-0.24	-0.15	0.18	2.83	1.73
22	2.61	3.32	1.95	1.62	1.03	0.44	0.42	-0.24	-0.18	-0.22	2.95	2.10
23	2.55	3.89	1.95	2.55	0.89	0.76	0.39	-0.24	-0.18	-0.20	2.71	2.10
24	1.51	4.11	2.13	1.79	0.57	1.70	0.33	0.23	-0.18	0.41	3.69	1.33
25	2.15	3.42	2.15	1.73	0.33	1.40	0.31	0.21	-0.18	0.74	2.46	2.55
26	2.49	3.27	2.16	1.19	0.32	1.14	0.30	0.16	-0.18	0.41	2.99	3.05
27	2.64	3.35	3.55	1.17	0.47	2.10	0.27	-0.17	-0.22	0.38	2.64	1.98
28	4.91	4.12	4.51	2.82	0.36	0.93	0.22	-0.18	0.75	0.66	2.39	1.92
29	3.15	-	4.44	3.08	0.37	0.64	0.19	-0.18	0.55	1.12	2.67	1.50
30	4.27	-	4.33	1.69	0.90	0.50	0.17	0.24	0.84	1.49	4.17	1.49
31	3.23	-	3.65	-	0.72	-	0.16	0.24	-	0.46	-	1.48
Mean	2.33	3.48	3.21	2.10	1.67	0.55	0.76	-0.12	-0.01	0.87	1.98	2.53
Min.	0.93	1.93	1.95	0.99	0.32	0.17	0.16	-0.24	-0.22	-0.22	0.18	1.33
Max.	4.91	4.79	4.51	4.90	3.69	2.10	2.20	0.24	0.84	2.42	4.17	4.87

Annual Mean : 1.61 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	129	291	179	434	95	24	16	9	11	74	31	204
2	55	255	231	392	198	17	14	6	9	74	30	271
3	73	287	204	192	83	20	14	3	9	25	18	171
4	90	319	167	218	91	14	13	2	9	125	16	429
5	51	387	123	169	95	12	13	2	9	122	46	285
6	108	337	310	143	159	11	52	2	9	75	24	186
7	78	292	224	126	102	11	86	2	10	39	18	140
8	254	232	195	125	190	10	40	2	2	23	18	149
9	113	417	239	112	122	10	24	2	2	35	9	151
10	69	251	214	97	84	9	23	2	2	42	14	372
11	38	185	199	57	64	10	31	2	2	135	154	209
12	35	168	260	58	52	10	41	2	2	64	138	159
13	41	131	220	61	41	9	29	2	2	26	109	144
14	226	95	207	54	183	11	46	2	2	17	97	165
15	129	151	314	38	116	11	116	2	2	14	56	131
16	74	157	252	44	92	11	98	2	2	14	101	120
17	117	145	235	54	139	11	76	2	2	16	179	106
18	128	308	195	47	267	11	78	2	2	23	179	91
19	223	271	261	95	226	18	43	2	2	16	194	108
20	144	239	290	111	94	20	26	2	2	14	161	93
21	146	203	136	74	57	19	18	2	3	9	173	81
22	152	224	97	74	40	16	16	2	2	2	185	108
23	146	292	97	146	34	28	15	2	2	2	161	108
24	67	321	111	85	21	79	13	10	2	15	267	56
25	112	236	112	81	13	60	12	10	2	27	138	146
26	141	219	113	48	13	46	12	9	2	15	189	195
27	155	228	251	47	17	108	11	3	2	14	155	99
28	435	322	376	172	14	35	10	2	28	24	132	95
29	206	-	366	198	14	23	9	2	20	45	158	66
30	342	-	351	78	34	18	9	11	31	66	329	66
31	214	-	263	-	26	-	9	11	-	17	-	65
Mean	138	249	219	121	90	23	33	4	6	39	116	154
Min.	35	95	97	38	13	9	9	2	2	2	9	56
Max.	435	417	376	434	267	108	116	11	31	135	329	429

Annual Mean : 99 (m<sup>3</sup>/sec)

Annual Total : 3,104 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.19	2.72	2.51	0.65	0.98	0.13	0.06	0.05	0.05	0.04	-0.03	0.01
2	2.06	2.28	3.12	1.38	0.89	0.11	0.06	0.05	0.05	0.04	-0.03	0.19
3	2.15	2.50	2.60	1.23	0.83	0.11	0.06	0.05	0.05	0.04	-0.04	-0.04
4	2.24	2.27	3.97	3.28	0.72	0.10	0.06	0.05	0.04	0.04	-0.04	0.06
5	4.00	2.22	3.32	3.46	0.68	0.10	0.06	0.05	0.04	0.04	-0.05	0.10
6	4.70	4.12	2.53	2.68	0.66	0.10	0.06	0.05	0.04	0.04	-0.06	0.16
7	3.90	4.91	2.24	1.60	0.60	0.09	0.06	0.05	0.04	0.04	0.07	0.30
8	3.95	4.88	2.47	1.45	0.57	0.09	0.06	0.05	0.04	0.04	0.05	0.47
9	4.00	4.60	2.64	1.21	0.52	0.09	0.06	0.05	0.04	0.04	0.04	0.59
10	4.45	3.97	5.15	1.11	0.49	0.09	0.06	0.05	0.04	0.04	0.03	1.42
11	4.68	3.00	4.09	0.84	0.49	0.09	0.06	0.05	0.04	0.04	0.11	0.85
12	4.73	2.62	3.81	1.88	0.50	0.08	0.06	0.05	0.04	0.04	0.27	0.78
13	5.73	4.93	4.39	2.45	0.49	0.08	0.06	0.05	0.04	0.04	0.25	0.67
14	4.22	4.57	4.02	1.67	0.46	0.08	0.06	0.05	0.04	0.04	0.30	0.53
15	3.93	3.17	3.71	0.93	0.45	0.08	0.06	0.05	0.04	0.04	0.11	1.22
16	2.77	3.38	2.48	0.72	0.43	0.08	0.06	0.05	0.04	0.04	0.09	3.18
17	4.36	4.73	1.97	0.72	0.42	0.07	0.05	0.05	0.04	0.04	0.07	2.21
18	3.36	4.90	1.74	0.69	0.43	0.07	0.05	0.05	0.04	0.04	0.05	1.06
19	2.88	3.53	2.57	0.59	0.40	0.07	0.05	0.05	0.04	0.04	0.03	1.84
20	2.51	3.29	2.32	0.59	0.41	0.07	0.05	0.05	0.04	0.04	0.03	1.20
21	2.58	2.84	2.06	0.52	0.38	0.06	0.05	0.05	0.04	0.04	0.01	0.98
22	2.50	2.80	1.13	0.52	0.36	0.06	0.05	0.05	0.04	0.04	-0.02	0.87
23	4.10	2.49	0.10	0.71	0.33	0.06	0.05	0.05	0.04	0.04	-0.03	1.54
24	7.34	2.55	-0.33	1.47	0.32	0.06	0.05	0.05	0.04	0.04	-0.03	1.08
25	2.75	3.92	-0.29	1.37	0.30	0.06	0.05	0.05	0.04	0.04	-0.05	0.94
26	2.79	5.45	1.93	1.27	0.30	0.06	0.05	0.05	0.04	0.04	-0.05	2.57
27	3.72	3.79	-0.22	2.98	0.26	0.06	0.05	0.05	0.04	0.04	-0.06	2.04
28	4.20	3.39	-0.28	1.77	0.20	0.06	0.05	0.05	0.04	0.04	-0.06	2.51
29	2.86	-	-0.37	1.89	0.16	0.06	0.05	0.05	0.04	0.04	-0.06	2.24
30	2.67	-	-0.38	0.91	0.18	0.06	0.05	0.05	0.04	0.04	-0.06	2.64
31	3.05	-	-0.42	-	0.15	-	0.05	0.05	-	0.04	-	2.65
Mean	3.59	3.57	2.08	1.42	0.46	0.08	0.06	0.05	0.04	0.04	0.03	1.19
Min.	2.06	2.22	-0.42	0.52	0.15	0.06	0.05	0.05	0.04	0.04	-0.06	-0.04
Max.	7.34	5.45	5.15	3.46	0.98	0.13	0.06	0.05	0.05	0.04	0.30	3.18

Annual Mean : 1.05 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	116	162	143	24	38	8	6	6	6	6	6	5
2	105	123	203	59	34	8	6	6	6	6	6	5
3	112	142	151	30	31	8	6	6	6	6	6	5
4	120	122	302	220	26	7	6	6	6	6	6	6
5	306	118	224	240	25	7	6	6	6	6	6	4
6	403	322	145	159	24	7	6	6	6	6	6	4
7	294	435	120	72	22	7	6	6	6	6	6	7
8	300	430	139	63	21	7	6	6	6	6	6	17
9	306	389	155	49	19	7	6	6	6	6	6	21
10	367	302	473	44	18	7	6	6	6	6	6	61
11	400	190	318	31	18	7	6	6	6	6	6	8
12	408	153	282	92	18	7	6	6	6	6	6	11
13	569	438	359	136	18	7	6	6	6	6	6	29
14	335	384	309	77	17	7	6	6	6	6	6	19
15	297	208	270	35	17	7	6	6	6	6	6	8
16	167	231	140	26	16	7	6	6	6	6	6	7
17	355	408	98	26	16	7	6	6	6	6	6	42
18	229	434	82	25	16	7	6	6	6	6	6	6
19	178	248	148	21	15	7	6	6	6	6	6	89
20	143	221	126	21	15	7	6	6	6	6	6	49
21	149	174	105	19	14	6	6	6	6	6	6	5
22	142	170	45	19	14	6	6	6	6	6	6	33
23	319	141	7	26	13	6	6	6	6	6	6	69
24	883	146	1	64	13	6	6	6	6	6	6	43
25	165	296	1	58	12	6	6	6	6	6	6	36
26	169	522	95	53	12	6	6	6	6	6	6	148
27	271	280	2	188	11	6	6	6	6	6	6	104
28	333	232	1	84	10	6	6	6	6	6	6	143
29	176	-	1	92	9	6	6	6	6	6	6	120
30	158	-	1	34	9	6	6	6	6	6	6	155
31	195	-	0	-	8	-	6	6	6	6	-	156
Mean	273	265	143	70	18	7	6	6	6	6	6	60
Min.	105	118	0	19	8	6	6	6	6	6	6	4
Max.	883	522	473	240	38	8	6	6	6	6	6	209

Annual Mean : 72 (m<sup>3</sup>/sec) Annual Total : 2,247 (10<sup>6</sup> m<sup>3</sup>)



OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 1983 (Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.68	0.73	3.05	0.96	1.14	1.50	0.50	0.49	0.40	0.41	0.92	1.76
2	2.66	2.03	1.84	0.97	2.51	1.87	0.49	0.48	0.40	0.42	0.97	1.26
3	3.02	2.16	1.75	1.72	2.76	1.41	0.49	0.48	0.40	0.41	1.36	1.11
4	2.62	2.53	1.85	2.41	2.53	1.34	0.50	0.50	0.40	0.41	1.21	0.95
5	2.94	1.56	1.47	2.87	2.36	1.21	0.50	0.48	0.40	1.38	1.54	0.88
6	2.72	1.36	1.90	1.88	1.97	0.94	0.50	0.48	0.40	0.92	1.06	0.89
7	2.97	3.26	1.74	2.37	4.14	0.92	0.49	0.48	0.40	0.77	1.10	1.39
8	5.02	1.84	1.71	2.72	4.57	0.78	0.49	0.47	0.40	0.66	2.07	1.86
9	3.98	3.35	1.64	2.57	4.34	0.65	0.50	0.46	0.40	0.53	2.36	1.33
10	4.12	1.67	1.93	2.51	4.88	2.13	0.50	0.47	0.40	0.51	1.54	1.34
11	3.23	1.87	1.44	2.15	4.82	2.17	0.49	0.48	0.40	0.59	2.52	1.29
12	3.39	1.40	2.07	1.66	2.90	1.17	0.49	0.49	0.40	0.61	2.10	1.24
13	2.67	2.56	2.07	1.48	3.45	0.95	0.50	0.48	0.40	0.60	2.03	1.20
14	2.81	3.64	1.34	4.38	2.93	0.84	0.50	0.47	0.40	0.70	1.19	1.26
15	2.54	2.57	1.33	2.85	2.81	0.74	0.50	0.46	0.40	0.66	1.25	1.79
16	2.69	1.69	1.48	3.70	2.86	0.73	0.50	0.47	0.40	0.65	1.17	1.33
17	2.58	1.65	1.90	3.86	2.82	0.65	0.50	0.47	0.40	0.62	1.02	1.18
18	1.90	1.41	1.65	3.64	2.85	0.63	0.50	0.47	0.40	1.36	1.03	1.00
19	3.55	1.33	0.96	1.69	2.56	0.63	0.50	0.48	0.41	0.68	0.98	0.89
20	3.22	1.13	2.43	1.18	4.18	0.62	0.50	0.48	0.20	0.62	1.00	0.87
21	2.44	1.71	1.27	1.19	2.06	0.60	0.50	0.47	0.42	1.07	1.10	0.92
22	1.85	2.50	2.56	1.07	1.87	0.60	0.50	0.46	0.41	1.16	1.25	2.88
23	1.56	2.71	1.83	1.01	2.56	0.58	0.50	0.48	0.41	0.97	1.30	1.98
24	1.32	1.62	1.42	0.97	1.47	0.57	0.50	0.47	0.41	1.35	1.38	1.57
25	0.62	1.51	0.97	0.99	2.43	0.55	0.50	0.48	0.42	2.71	1.42	2.77
26	2.08	2.08	1.01	0.87	2.59	0.54	0.49	0.48	0.42	1.84	1.50	2.04
27	0.64	3.03	2.08	0.84	2.20	0.53	0.49	0.47	0.42	1.20	1.48	1.91
28	0.73	4.87	1.41	0.87	1.62	0.52	0.50	0.47	0.42	1.19	1.13	2.71
29	0.60	-	0.96	0.94	1.28	0.51	0.50	0.47	0.43	2.19	1.12	3.64
30	0.56	-	0.94	0.93	1.35	0.50	0.50	0.48	0.42	1.44	1.73	1.86
31	0.31	-	0.90	-	1.25	-	0.50	0.47	-	1.09	-	1.89
Mean	2.39	2.13	1.65	1.91	2.71	0.92	0.50	0.48	0.40	0.96	1.39	1.58
Min.	0.31	0.73	0.90	0.84	1.14	0.50	0.49	0.46	0.20	0.41	0.92	0.87
Max.	5.02	4.87	3.05	4.38	4.88	2.27	0.50	0.50	0.43	2.71	2.52	3.64

Annual Mean : 1.42 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 1983 (unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	159	27	195	37	46	66	18	18	15	15	35	83
2	157	103	89	37	143	91	18	18	15	16	37	52
3	192	113	83	80	166	61	18	18	15	15	58	44
4	153	145	90	134	145	57	18	18	15	15	49	36
5	184	70	64	177	130	49	18	18	15	59	69	33
6	162	58	93	92	98	36	18	18	15	35	42	34
7	187	218	82	131	325	35	18	18	15	28	44	59
8	452	89	80	162	384	29	18	17	15	24	106	90
9	304	228	75	148	352	24	18	17	15	19	130	56
10	322	77	95	143	430	111	18	17	15	19	69	57
11	214	91	62	112	421	122	18	18	15	21	144	54
12	232	60	114	76	180	47	18	18	15	22	108	51
13	158	147	106	65	239	36	18	18	15	22	103	49
14	171	261	57	357	183	31	18	17	15	26	48	52
15	146	148	56	175	171	27	18	17	15	24	52	85
16	159	78	65	269	176	27	18	17	15	24	47	56
17	149	76	93	288	172	24	18	17	15	23	40	48
18	93	61	76	261	175	23	18	17	15	58	40	39
19	251	56	37	78	147	23	18	18	15	25	38	34
20	213	45	136	48	330	23	18	18	10	23	39	33
21	137	80	53	48	105	22	18	17	16	42	44	35
22	90	142	147	42	91	22	18	17	15	47	52	178
23	70	161	88	39	147	21	18	18	15	37	54	99
24	55	74	61	37	64	21	18	17	15	57	59	71
25	23	67	37	38	136	20	18	18	16	161	61	167
26	107	107	39	33	150	20	18	18	16	89	66	104
27	23	193	107	31	116	19	18	17	16	49	65	94
28	27	429	61	33	74	19	18	17	16	48	45	161
29	22	-	37	36	53	19	18	17	16	116	45	261
30	20	-	36	35	57	18	18	18	16	62	81	90
31	12	-	34	-	52	-	18	17	-	43	-	92
Mean	150	122	79	108	176	38	18	17	15	41	62	77
Min.	12	27	34	31	46	18	18	17	10	15	35	33
Max.	452	429	195	357	430	122	18	18	16	161	144	261

Annual Mean : 75 (m<sup>3</sup>/sec)

Annual Total : 2,369 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.93	5.86	2.06	1.45	1.26	0.95	1.81	0.78	0.69	1.16	0.36	1.63
2	1.50	4.72	5.05	1.43	1.69	0.91	1.19	0.72	0.62	1.19	0.26	2.28
3	2.36	4.44	4.45	1.49	1.87	0.86	0.92	0.70	0.64	1.21	0.23	2.31
4	2.73	5.67	4.64	1.32	1.40	0.82	0.90	0.69	0.70	1.14	0.19	1.86
5	4.44	7.05	4.27	2.16	1.19	2.80	0.25	0.67	1.65	1.27	0.46	1.70
6	2.74	5.82	3.39	1.10	1.00	0.76	0.79	0.66	1.30	1.32	0.31	3.34
7	3.34	6.03	2.86	2.16	1.04	0.75	0.77	0.66	1.06	1.42	0.22	3.28
8	2.32	5.40	3.03	1.73	1.04	0.74	0.74	0.65	0.98	1.26	0.19	2.22
9	1.97	5.16	5.47	1.79	1.82	0.77	0.72	0.65	0.88	1.17	0.24	2.34
10	3.38	5.25	4.12	2.12	1.02	2.05	0.71	0.63	1.19	1.17	0.20	1.09
11	3.76	5.14	3.13	5.29	1.00	1.49	0.67	0.63	1.77	1.21	0.26	2.46
12	5.26	5.53	3.25	3.56	1.12	1.11	0.64	0.62	1.17	2.00	0.15	2.60
13	4.73	4.47	2.66	2.80	1.06	1.00	0.62	0.63	1.19	1.26	0.46	4.67
14	3.85	3.38	3.61	2.71	1.37	0.84	0.60	0.61	1.21	1.42	0.18	3.11
15	3.41	2.71	2.70	2.94	1.08	0.74	0.60	0.60	1.16	1.15	0.31	2.54
16	2.69	2.07	4.66	2.96	1.49	0.71	0.55	0.59	1.28	1.23	0.28	2.33
17	2.43	2.23	4.32	2.53	1.42	0.70	0.58	0.58	1.09	1.37	0.24	2.02
18	2.45	1.96	3.24	2.04	1.35	0.69	0.57	0.56	1.00	0.98	0.53	1.64
19	1.90	2.99	2.83	2.01	1.26	0.68	0.72	0.56	0.97	0.75	0.47	1.43
20	1.25	3.13	1.61	1.37	1.64	0.67	0.87	0.56	0.88	0.55	0.36	1.36
21	1.54	3.05	1.91	1.48	1.69	0.66	0.82	0.55	0.84	1.08	0.23	1.26
22	1.56	3.57	1.95	1.35	1.27	0.65	0.73	0.55	0.79	1.34	1.36	1.34
23	3.04	3.06	2.02	1.27	1.12	0.64	0.66	0.55	0.76	1.01	0.75	1.45
24	4.01	2.66	1.40	1.71	1.27	0.62	0.58	0.54	0.67	0.63	0.88	2.41
25	1.95	2.34	1.20	2.01	1.27	0.61	0.57	0.68	0.71	0.68	1.11	3.95
26	3.16	2.49	1.12	2.44	1.03	0.60	0.55	0.99	1.01	0.47	1.71	3.97
27	3.89	2.49	1.67	1.28	1.01	0.60	0.57	1.11	2.06	0.36	1.02	2.55
28	4.57	1.82	1.91	1.89	1.01	0.60	0.60	0.95	1.42	0.37	0.78	2.19
29	4.71	1.93	1.50	1.54	0.96	0.60	0.67	0.96	2.23	0.36	1.04	1.86
30	3.52	-	1.66	1.60	0.97	1.50	0.69	0.82	1.15	0.34	1.11	1.67
31	4.61	-	1.82	-	1.94	-	0.87	0.83	-	0.35	-	1.45
Mean	3.06	3.95	2.89	2.05	1.28	0.90	0.73	0.69	1.10	1.01	0.51	2.27
Min.	1.25	1.82	1.12	1.10	0.96	0.60	0.25	0.54	0.62	0.34	0.15	1.09
Max.	5.26	7.05	5.47	5.29	1.94	2.80	1.81	1.11	2.23	2.00	1.71	4.67

Annual Mean : 1.70 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	139	672	152	95	80	56	127	45	39	72	20	111
2	99	489	540	99	116	53	74	41	35	74	16	174
3	183	448	449	99	133	50	54	40	36	76	14	177
4	224	640	477	84	91	47	53	39	40	70	13	132
5	448	882	423	162	74	232	15	38	113	80	26	117
6	225	665	304	67	60	43	45	37	83	84	18	297
7	297	700	239	162	63	43	44	37	64	93	14	290
8	178	596	259	120	63	42	42	36	58	80	13	168
9	143	557	607	126	128	44	41	36	51	72	15	181
10	302	572	402	158	61	151	40	35	74	72	13	66
11	352	554	271	578	60	99	38	35	124	76	16	194
12	573	617	286	326	69	68	36	35	72	146	11	209
13	491	452	216	232	64	60	35	35	74	80	26	482
14	364	302	332	221	88	49	33	34	76	93	12	269
15	306	221	220	248	66	42	33	33	72	71	18	202
16	219	153	480	251	99	40	31	33	81	77	17	180
17	190	169	430	201	93	40	32	32	66	88	15	148
18	192	142	285	150	87	39	32	31	60	58	29	112
19	136	254	235	147	80	38	41	31	58	43	26	93
20	79	271	109	88	112	38	51	31	51	31	20	88
21	103	261	137	98	116	37	47	31	49	66	14	80
22	105	327	141	87	80	36	41	31	45	86	88	86
23	260	263	148	80	69	36	37	31	43	60	43	95
24	386	216	91	118	80	35	32	30	38	35	51	188
25	141	181	75	147	80	34	32	38	40	38	68	378
26	275	197	69	191	62	33	31	59	60	26	118	381
27	370	197	114	81	60	33	32	68	152	20	61	203
28	467	128	137	135	60	33	33	56	93	21	45	165
29	488	139	99	103	57	33	38	57	169	20	63	132
30	320	-	114	108	58	99	39	47	71	19	68	114
31	473	-	128	-	140	-	51	48	-	20	-	95
Mean	275	397	257	159	82	56	42	39	70	63	32	181
Min.	79	128	69	67	57	33	15	30	35	19	11	66
Max.	573	882	607	578	140	232	127	68	169	146	118	482

Annual Mean : 138 (m<sup>3</sup>/sec)

Annual Total : 4,298 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	1985												Dec
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		
1	1.51	2.38	2.83	1.46	1.01	1.00	0.47	0.54	0.51	0.43	0.82	1.61	
2	1.42	1.94	3.75	2.57	0.91	2.02	0.64	0.50	0.47	0.37	0.58	2.84	
3	1.32	2.17	2.54	1.50	0.77	1.61	0.56	0.82	0.45	0.42	0.57	1.81	
4	1.26	2.14	3.50	1.34	0.84	1.18	0.53	0.65	0.44	0.38	0.73	1.57	
5	1.22	3.82	5.25	2.53	1.03	1.02	0.47	0.58	0.38	0.39	0.66	1.51	
6	1.49	2.64	5.74	1.58	1.18	1.19	0.50	0.54	0.37	0.38	0.96	3.39	
7	2.90	2.03	6.70	1.27	1.04	2.14	0.45	0.39	0.43	0.42	0.96	2.67	
8	2.88	3.16	6.79	1.27	0.93	1.76	0.44	0.41	0.47	0.48	0.66	1.52	
9	3.05	4.58	7.28	1.22	1.10	1.75	0.45	0.52	0.61	0.43	0.94	1.27	
10	2.26	3.03	6.49	1.13	0.90	0.98	0.44	1.02	0.53	0.42	0.60	1.14	
11	2.02	2.96	5.19	1.96	0.99	0.75	0.53	0.47	0.44	0.42	0.65	1.12	
12	2.63	3.14	4.56	2.03	1.47	0.81	0.66	0.39	0.43	0.42	0.55	1.67	
13	3.20	2.64	4.18	3.47	0.89	0.71	0.63	0.41	0.45	0.42	0.44	1.87	
14	2.25	4.69	4.02	2.85	0.84	0.67	0.52	0.53	0.53	0.41	0.98	1.32	
15	3.19	2.51	4.03	2.73	0.71	0.66	0.46	0.49	0.47	0.40	0.55	1.23	
16	2.97	1.85	3.34	2.01	1.04	0.64	0.44	0.49	0.48	0.40	0.53	1.12	
17	2.61	1.56	3.75	3.71	0.79	0.59	0.44	0.52	0.44	0.42	0.52	1.07	
18	2.14	2.08	3.48	1.90	0.81	0.55	0.45	0.47	0.38	0.40	0.55	1.05	
19	5.00	1.82	2.84	1.87	0.77	0.62	0.43	0.43	0.49	0.37	0.52	1.24	
20	4.70	1.83	2.45	1.15	0.64	0.65	0.42	0.44	0.43	0.37	0.93	1.24	
21	2.58	1.99	2.37	1.77	0.70	0.88	0.45	0.36	0.44	1.43	0.68	1.86	
22	1.78	4.21	1.37	2.70	0.68	1.14	0.45	0.36	0.44	1.58	0.75	1.31	
23	2.65	4.87	1.54	1.32	0.70	0.95	0.44	0.37	0.40	0.75	0.87	1.42	
24	2.53	4.32	1.47	0.96	0.71	0.77	0.70	0.40	0.41	1.36	0.64	3.52	
25	5.21	2.72	1.54	1.73	0.71	0.60	0.70	0.40	0.30	1.87	0.70	2.00	
26	3.06	2.47	1.33	1.16	0.70	0.58	0.70	0.46	0.44	1.00	0.82	1.45	
27	3.25	2.09	2.63	1.71	0.68	0.55	0.70	0.43	0.40	1.03	3.16	1.67	
28	2.51	2.06	1.63	2.64	0.68	0.54	0.65	0.35	0.42	1.55	2.27	1.74	
29	2.81	-	2.42	2.20	0.68	0.47	0.62	0.35	0.42	1.87	2.91	3.13	
30	3.16	-	2.23	1.32	0.80	0.48	0.42	0.57	0.41	1.69	2.73	1.76	
31	2.91	-	2.00	-	0.79	-	0.49	0.62	-	1.42	-	1.85	
Mean	2.66	2.78	3.52	1.90	0.85	0.94	0.52	0.49	0.44	0.76	0.97	1.73	
Min.	1.22	1.56	1.33	0.96	0.64	0.47	0.42	0.35	0.30	0.37	0.44	1.05	
Max.	5.21	4.87	7.28	3.71	1.47	2.14	0.70	1.02	0.61	1.87	3.16	3.52	

Annual Mean : 1.47 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	1985												Dec
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		
1	100	185	235	96	60	60	26	30	28	24	47	109	
2	93	140	351	206	53	148	36	28	26	21	32	213	
3	84	163	202	99	44	109	31	47	25	24	32	127	
4	80	160	318	86	49	73	29	36	25	21	41	106	
5	76	360	572	201	62	61	26	32	21	22	37	100	
6	99	213	651	106	73	74	28	30	21	21	57	304	
7	244	149	818	80	63	160	25	22	24	24	57	217	
8	241	275	835	80	55	123	25	23	26	27	37	101	
9	261	468	926	76	67	122	25	29	34	24	55	80	
10	172	259	781	69	53	58	25	61	29	24	33	70	
11	148	251	562	142	59	43	29	26	25	24	36	69	
12	212	272	465	149	97	47	37	22	24	24	31	114	
13	280	213	410	314	52	40	35	23	25	24	25	133	
14	171	485	388	238	49	38	29	29	29	23	58	84	
15	279	199	389	224	40	37	26	27	26	22	31	77	
16	252	131	297	147	63	36	25	27	27	22	29	69	
17	210	105	351	346	45	33	25	29	25	24	29	65	
18	160	154	315	136	47	31	25	26	21	22	31	63	
19	532	128	236	133	44	35	24	24	27	21	29	78	
20	486	129	192	71	36	36	24	25	24	21	55	78	
21	207	145	184	124	40	51	25	20	25	93	38	132	
22	125	415	88	220	38	70	25	20	25	106	43	84	
23	215	512	103	84	40	56	25	21	22	43	51	93	
24	201	430	97	57	40	44	40	22	23	88	36	320	
25	565	223	103	120	40	33	40	22	18	133	40	146	
26	263	195	85	72	40	32	40	26	25	60	47	95	
27	286	155	212	118	38	31	40	24	22	62	275	114	
28	199	152	111	213	38	30	36	20	24	104	173	121	
29	233	-	189	166	38	26	35	20	24	133	245	271	
30	275	-	169	84	46	27	24	32	23	116	224	123	
31	245	-	146	-	45	-	27	35	-	93	-	131	
Mean	226	238	348	142	50	59	29	28	25	48	65	125	
Min.	76	105	85	57	36	26	24	20	18	21	25	63	
Max.	565	512	926	346	97	160	40	61	34	133	275	320	

Annual Mean : 115 (m<sup>3</sup>/sec) Annual Total : 3,617 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.87	2.34	2.33	4.65	1.11	0.62	0.62	0.46	0.30	0.52	0.50	0.38
2	1.67	2.24	1.58	3.86	0.64	0.57	0.57	0.48	0.24	0.49	0.51	0.39
3	1.80	2.56	2.98	3.09	0.52	0.48	0.48	0.45	0.25	0.43	0.54	0.38
4	1.81	1.85	3.32	3.45	0.46	0.43	0.43	0.44	0.27	0.41	0.63	0.39
5	2.55	2.27	2.76	3.70	0.44	0.47	0.47	0.47	0.24	0.40	1.04	0.41
6	2.36	2.39	2.96	3.67	0.46	0.48	0.48	0.44	0.23	0.37	3.34	0.47
7	2.35	3.09	3.04	2.77	0.65	0.47	0.47	0.47	0.24	0.35	2.63	0.33
8	1.92	2.44	4.52	2.53	0.55	0.47	0.47	0.42	1.25	0.36	2.32	0.53
9	3.41	2.54	3.40	2.33	0.49	0.41	0.41	0.43	1.12	0.45	1.87	1.10
10	2.53	2.84	3.83	1.74	0.66	0.43	0.43	0.41	0.59	1.85	2.46	0.42
11	2.58	2.19	3.36	2.00	0.95	0.44	0.44	0.41	0.38	1.34	1.21	0.33
12	2.13	3.45	3.32	4.01	0.70	0.44	0.44	0.39	0.32	1.40	1.35	0.39
13	1.79	2.62	3.80	2.95	1.09	0.44	0.44	0.47	0.27	1.85	1.18	0.66
14	1.69	2.25	2.85	1.76	1.42	0.50	0.50	0.38	0.29	0.88	1.08	1.02
15	1.51	2.10	3.85	1.27	0.87	0.46	0.46	0.38	0.24	0.68	1.01	1.38
16	1.46	2.04	2.66	2.04	0.58	0.40	0.40	0.36	0.28	0.56	0.98	0.85
17	1.14	2.91	2.25	1.44	0.62	0.41	0.41	0.37	0.24	0.44	0.92	0.57
18	1.08	4.31	1.96	1.87	0.50	0.44	0.44	0.34	0.24	0.45	0.94	1.06
19	1.08	2.80	2.05	2.02	0.43	0.46	0.46	0.33	0.30	0.40	1.60	0.53
20	1.34	2.62	1.73	1.79	0.50	0.49	0.49	0.33	0.63	0.38	0.76	0.56
21	2.75	2.96	3.27	2.51	0.41	0.79	0.79	0.33	0.56	0.38	0.72	0.64
22	2.43	2.08	2.82	1.90	0.43	0.44	0.44	0.34	0.42	0.37	0.60	0.97
23	2.69	1.64	3.13	2.42	0.46	0.46	0.46	0.31	0.42	0.40	0.48	0.72
24	2.53	4.44	2.68	2.54	0.44	0.46	0.46	0.33	2.19	0.38	0.53	0.58
25	3.83	3.59	5.19	2.13	0.46	0.44	0.44	0.32	2.39	0.48	2.22	1.16
26	4.11	3.10	5.62	2.09	0.41	0.41	0.41	0.28	1.11	0.69	2.68	1.04
27	3.46	1.56	4.63	1.46	0.39	0.46	0.46	0.26	0.70	0.56	2.70	0.88
28	2.84	2.37	5.92	1.28	0.38	0.40	0.40	0.25	0.52	0.54	1.79	1.06
29	3.43	-	3.80	1.22	0.42	0.42	0.42	0.25	0.54	0.74	0.74	1.17
30	3.01	-	4.16	1.20	0.44	0.43	0.43	0.22	0.49	0.52	0.46	2.43
31	2.31	-	3.75	-	0.43	-	0.53	0.20	-	0.52	-	2.88
Mean	2.31	2.63	3.34	2.39	0.59	0.47	0.47	0.37	0.58	0.63	1.33	0.83
Min.	1.08	1.56	1.58	1.20	0.38	0.40	0.40	0.20	0.23	0.35	0.46	0.33
Max.	4.11	4.44	5.92	4.65	1.42	0.79	0.79	0.48	2.39	1.85	3.34	2.88

Annual Mean : 1.33 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	133	181	180	479	68	35	35	26	18	29	28	21
2	114	170	106	366	36	32	32	27	15	27	28	22
3	126	205	253	266	29	27	27	25	15	24	30	21
4	127	131	295	311	26	24	24	25	16	23	35	22
5	203	173	227	344	25	26	26	26	15	22	63	23
6	183	186	251	340	26	27	27	25	14	21	297	26
7	182	266	260	228	36	26	26	26	15	20	212	19
8	138	191	459	201	31	26	26	24	79	20	178	29
9	306	202	305	180	27	23	23	24	69	25	133	67
10	201	236	362	121	37	24	24	23	33	131	194	24
11	207	165	300	146	56	25	25	23	21	86	76	19
12	159	311	295	386	40	25	25	22	19	91	87	22
13	126	211	358	249	66	25	25	26	16	131	73	37
14	116	171	238	123	93	28	28	21	17	51	66	61
15	100	156	364	80	51	26	26	21	15	38	60	89
16	96	150	216	150	32	22	22	20	17	31	58	49
17	70	245	171	94	35	23	23	21	15	25	54	32
18	66	429	142	133	28	25	25	19	15	25	55	64
19	66	232	151	148	24	26	26	19	18	22	108	29
20	86	211	120	125	28	27	27	19	35	21	43	31
21	226	251	289	199	23	45	45	19	31	21	41	36
22	190	154	234	136	24	25	25	19	24	21	33	58
23	219	112	271	189	26	26	26	18	24	22	27	41
24	201	448	218	202	25	26	26	19	165	21	29	32
25	362	330	562	159	26	25	25	19	186	27	168	72
26	400	268	632	155	23	23	23	17	68	39	218	63
27	313	105	476	96	22	26	26	16	40	31	220	51
28	236	184	682	81	21	22	22	15	29	30	126	64
29	309	-	358	76	24	24	24	15	30	42	42	72
30	257	-	407	75	25	24	24	14	27	29	26	190
31	177	-	351	-	24	-	-	13	-	29	-	241
Mean	184	217	307	195	34	26	26	21	37	38	94	53
Min.	66	105	106	75	21	22	22	13	14	20	26	19
Max.	400	448	682	479	93	45	45	27	186	131	297	241

Annual Mean : 103 (m<sup>3</sup>/sec)

Annual Total : 3,210 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.63	2.92	1.75	1.75	0.50							
2	2.30	3.98	2.64	1.91	0.48							
3	1.30	4.32	2.74	1.27	0.56							
4	4.32	3.85	2.47	1.19	0.52							
5	3.20	2.66	3.67	1.08	0.44							
6	2.43	2.16	2.56	1.02	0.38							
7	3.56	1.83	1.67	0.96	0.49							
8	2.40	2.73	1.73	0.86	0.71							
9	4.05	4.45	1.45	0.78	0.53							
10	2.32	3.91	1.37	0.79	0.42							
11	2.77	5.16	1.26	0.88	0.44							
12	2.27	5.10	1.34	1.04	0.28							
13	1.86	3.23	1.27	0.60	0.25							
14	2.92	2.91	1.83	0.35	0.31							
15	2.17	3.44	2.03	0.29	0.31							
16	2.14	3.66	2.62	0.27	0.39							
17	2.35	3.81	4.08	0.29	0.61							
18	1.72	3.72	2.17	0.29	0.47							
19	1.23	3.80	1.92	0.29	0.36							
20	1.50	5.11	4.48	0.49	0.26							
21	1.99	5.25	4.77	0.46	0.25							
22	2.80	3.99	3.83	1.01	0.22							
23	1.68	2.41	2.67	0.75	0.19							
24	1.31	2.23	1.91	0.50	0.19							
25	2.95	2.42	2.48	0.31	0.16							
26	4.48	3.77	1.94	0.30	0.16							
27	4.98	1.96	1.59	0.27	0.16							
28	3.71	1.75	1.48	0.27	0.13							
29	2.55	-	1.25	0.26	0.15							
30	3.80	-	1.17	0.49	0.28							
31	2.75	-	1.17	-	0.26							
Mean	2.69	3.45	2.24	0.70	0.35							
Min.	1.23	1.75	1.17	0.26	0.13							
Max.	4.98	5.25	4.77	1.91	0.71							
Annual Mean :	(m)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	335	246	122	122	28							
2	176	382	213	137	27							
3	83	430	225	80	31							
4	430	364	195	74	29							
5	280	216	340	66	25							
6	190	162	205	61	21							
7	326	129	114	57	27							
8	187	224	120	50	40							
9	392	449	95	45	29							
10	178	373	88	45	24							
11	228	557	80	51	25							
12	173	548	86	63	17							
13	132	284	80	33	15							
14	246	245	129	20	18							
15	163	310	149	17	18							
16	160	339	211	16	22							
17	182	359	396	17	34							
18	119	347	163	17	26							
19	77	358	138	17	20							
20	99	549	454	27	16							
21	145	572	497	26	15							
22	232	384	362	60	14							
23	115	188	217	43	13							
24	84	169	137	28	13							
25	249	189	196	18	11							
26	454	354	140	18	11							
27	529	142	107	16	11							
28	346	122	98	16	10							
29	203	-	79	16	11							
30	358	-	72	27	17							
31	226	-	72	-	16							
Mean	229	321	180	43	20							
Min.	77	122	72	16	10							
Max.	529	572	497	137	40							
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year : 1988 (Gauge Reading, Unit : m)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean												
Min.												
Max.												
Annual Mean :	(m)											

Annual Total : (10<sup>6</sup> m<sup>3</sup>)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year : 1988 (unit : m<sup>3</sup>/sec)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
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19												
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21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean												
Min.												
Max.												
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

**OBSERVED DAILY WATER LEVEL AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year : 1989 (Gauge Reading, Unit : m)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
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21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean												
Min.												
Max.												
Annual Mean :	(m)											

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year : 1989 (unit : m<sup>3</sup>/sec)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
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23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean												
Min.												
Max.												
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	(Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.52	6.82	6.57	3.37	5.13	3.38	2.00	1.20	1.20	1.10	1.87	2.03
2	5.29	8.29	6.91	2.95	4.58	2.82	2.00	1.19	1.20	1.10	1.76	2.63
3	7.69	8.57	7.22	2.87	3.43	2.74	2.09	1.16	1.19	1.10	1.67	3.08
4	7.08	8.54	6.23	2.78	2.81	2.54	2.23	1.15	1.17	1.67	1.61	3.82
5	6.46	7.17	5.95	2.78	2.44	2.62	2.45	1.15	1.13	1.69	1.64	5.63
6	6.02	5.93	5.90	2.78	2.30	2.43	2.54	1.15	1.10	1.28	1.63	6.28
7	6.34	4.91	5.51	2.78	2.32	2.31	2.46	1.15	1.09	1.15	1.61	5.36
8	6.78	4.90	5.11	2.83	2.27	2.07	3.39	1.15	1.09	1.13	1.60	4.52
9	5.86	5.25	6.35	2.91	2.15	1.95	3.23	1.15	1.11	1.10	1.60	4.19
10	5.03	7.65	6.86	3.13	2.00	1.88	2.49	1.15	1.14	1.08	1.57	4.50
11	4.82	5.28	6.42	3.30	2.07	1.76	2.35	1.15	1.16	1.06	1.57	4.45
12	4.47	4.90	5.59	3.35	2.23	1.68	2.18	1.15	1.22	1.00	1.54	4.15
13	6.16	4.22	5.05	3.15	2.88	1.54	1.94	1.17	1.30	1.00	1.50	3.86
14	6.59	3.63	4.86	3.10	4.91	1.51	1.98	1.17	1.30	1.00	1.46	4.58
15	5.91	3.45	4.61	3.58	3.46	1.45	1.99	1.16	1.25	0.96	1.46	5.89
16	5.31	4.90	4.31	4.33	3.37	1.43	1.46	1.16	1.18	0.91	1.41	6.20
17	6.24	5.60	4.62	4.20	3.00	1.40	1.40	1.15	1.16	0.90	1.37	6.15
18	5.73	5.83	4.53	6.26	2.82	1.35	1.40	1.13	1.15	0.89	1.30	6.35
19	6.38	5.78	4.50	7.47	2.66	1.32	1.40	1.13	1.11	0.89	1.18	6.00
20	6.99	6.20	6.78	6.65	2.80	1.30	1.40	1.14	1.07	0.89	1.10	6.58
21	7.61	6.90	6.66	5.39	2.51	1.28	1.40	1.31	1.02	0.89	1.08	7.29
22	8.11	7.55	5.82	4.48	2.20	1.88	1.42	1.38	1.02	0.89	1.08	6.90
23	8.25	7.71	3.96	3.39	2.74	2.64	1.45	1.47	1.02	0.89	1.21	6.66
24	8.41	6.64	3.70	3.32	3.16	2.40	1.49	1.54	1.02	0.89	1.69	6.58
25	8.59	6.08	3.82	3.19	3.84	2.02	1.49	1.47	1.06	0.90	1.59	6.46
26	8.20	6.78	5.10	3.78	4.05	2.14	1.49	1.37	1.10	0.98	1.51	6.40
27	7.73	7.11	5.05	5.03	3.75	2.51	1.32	1.30	1.10	1.14	1.67	6.35
28	8.14	6.66	4.79	4.93	3.66	2.87	1.25	1.24	1.10	1.49	2.24	6.30
29	7.86	-	4.49	4.40	4.28	2.51	1.20	1.20	1.10	2.00	2.57	6.38
30	6.86	-	4.60	4.44	4.46	2.16	1.20	1.20	1.10	2.01	2.36	6.39
31	6.58	-	4.12	-	4.16	-	1.20	1.20	-	1.97	-	6.60
Mean	6.65	6.19	5.35	3.90	3.18	2.06	1.85	1.22	1.13	1.16	1.58	5.44
Min.	4.47	3.45	3.70	2.78	2.00	1.28	1.20	1.13	1.02	0.89	1.08	2.03
Max.	8.59	8.57	7.22	7.47	5.13	3.38	3.39	1.54	1.30	2.01	2.57	7.29

Annual Mean : 3.31 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 1990 (unit : m <sup>3</sup> /sec)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	300	713	659	160	392	161	33	33	1	1	0	24	35
2	419	1068	732	119	309	108	33	33	1	1	0	18	92
3	915	1144	802	112	166	101	39	0	1	1	0	14	131
4	770	1136	590	105	107	86	50	0	0	14	11	209	209
5	636	791	536	105	78	92	79	0	0	15	12	477	477
6	549	532	526	105	57	77	86	0	0	2	12	600	600
7	612	358	456	105	58	57	80	0	0	0	11	430	430
8	704	356	389	109	54	38	162	0	0	0	11	300	300
9	519	412	614	116	44	29	146	0	0	0	11	255	255
10	376	905	721	136	33	25	82	0	0	0	10	297	297
11	344	417	628	152	38	18	61	0	0	0	10	290	290
12	293	356	470	158	50	14	46	0	1	0	8	250	250
13	576	259	380	138	113	8	28	0	2	0	7	214	214
14	663	187	350	133	358	7	31	0	2	0	6	309	309
15	528	168	313	182	169	6	32	0	1	0	6	525	525
16	422	356	271	274	160	5	6	0	1	1	5	584	584
17	592	472	314	257	124	4	4	0	0	1	4	574	574
18	495	513	301	596	108	3	4	0	0	1	2	614	614
19	620	504	297	861	95	2	4	0	0	1	1	545	545
20	750	584	704	676	106	2	4	0	0	1	0	661	661
21	895	730	678	435	83	2	4	0	0	1	0	819	819
22	1021	880	512	294	48	25	5	4	0	1	0	730	730
23	1058	919	226	162	101	93	6	6	0	1	1	678	678
24	1101	674	195	154	139	66	7	8	0	1	15	661	661
25	1150	561	209	142	212	34	7	6	0	1	10	636	636
26	1045	704	387	205	237	43	7	4	0	0	7	624	624
27	924	777	380	376	201	83	2	2	0	0	14	614	614
28	1029	678	339	361	191	112	1	1	0	7	51	604	604
29	957	-	296	283	267	83	1	1	0	33	88	620	620
30	721	-	311	289	292	45	1	1	0	33	62	622	622
31	661	-	246	-	251	-	1	-	-	30	-	666	666
Mean	698	613	446	243	150	48	34	1	0	5	14	473	473
Min.	293	168	195	105	33	2	1	0	0	0	0	35	35
Max.	1150	1144	802	861	392	161	162	8	2	33	88	819	819

Annual Mean : 227 (m<sup>3</sup>/sec)

Annual Total : 7,115 (10<sup>6</sup> m<sup>3</sup>)



OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.10	5.52	3.44	3.43	2.83	1.88	1.64	1.55	1.57	1.54	1.57	1.69
2	4.10	5.05	5.06	3.20	2.85	1.89	1.64	1.54	1.57	1.54	1.57	1.94
3	3.24	5.52	3.54	2.50	2.38	1.88	1.66	1.53	1.59	1.56	1.56	3.40
4	2.52	5.12	3.61	5.33	2.10	1.86	1.69	1.56	1.58	1.56	1.57	2.22
5	2.20	5.60	2.81	3.69	2.25	1.65	1.68	1.56	1.58	1.56	1.66	2.58
6	3.40	5.30	2.67	2.94	1.93	1.65	1.61	1.56	1.58	1.56	1.60	3.55
7	2.75	5.43	2.95	5.15	1.82	1.66	1.60	1.56	1.57	1.58	1.58	2.76
8	3.45	5.25	3.16	3.00	1.77	1.65	1.60	1.55	1.56	1.58	1.57	2.88
9	3.79	5.17	2.90	2.27	1.84	1.65	1.58	1.54	1.55	1.58	1.57	3.12
10	3.86	6.17	3.10	2.06	1.99	1.65	1.58	1.54	1.54	1.57	1.85	2.18
11	3.29	6.22	2.64	2.46	2.25	1.65	1.59	1.56	1.54	1.59	1.68	2.22
12	3.82	5.45	2.55	3.30	1.89	1.65	1.59	1.55	1.55	1.58	1.94	2.28
13	5.71	5.08	2.47	2.95	1.80	1.64	1.58	1.54	1.54	1.59	2.31	3.22
14	5.36	5.33	2.43	2.17	1.75	1.65	1.59	1.54	1.54	1.58	1.90	2.60
15	5.40	5.17	2.37	1.92	1.72	1.65	1.62	1.56	1.54	1.60	1.78	2.53
16	4.77	5.12	2.60	2.52	1.72	1.66	1.64	1.55	1.53	1.58	1.85	1.82
17	4.21	5.12	2.70	3.30	1.89	1.65	1.59	1.54	1.53	1.57	1.91	1.73
18	4.56	4.83	2.38	3.58	1.90	1.69	1.58	1.54	1.53	1.57	1.97	1.70
19	4.51	6.57	2.43	2.63	1.88	1.69	1.57	1.53	1.52	1.58	1.80	1.80
20	3.53	5.82	2.81	2.10	1.89	1.66	1.56	1.54	1.54	1.57	2.05	2.96
21	4.29	6.24	2.27	2.22	1.89	1.67	1.56	1.53	1.54	1.55	2.72	2.18
22	4.99	5.58	2.38	3.40	1.75	1.65	1.56	1.55	1.54	1.55	2.12	2.36
23	4.71	5.22	2.33	3.15	1.77	1.62	1.56	1.54	1.56	1.58	2.52	1.94
24	4.78	5.42	1.93	2.92	1.88	1.63	1.55	1.54	1.54	1.55	2.34	1.91
25	2.96	4.97	1.81	2.92	1.85	1.64	1.57	1.55	1.54	1.73	2.19	2.66
26	2.68	5.22	1.73	2.48	1.86	1.64	1.56	1.54	1.54	1.60	2.05	2.91
27	2.17	6.05	1.76	2.37	1.87	1.65	1.57	1.55	1.54	1.56	2.10	2.26
28	1.88	5.07	1.75	2.45	1.90	1.64	1.57	1.55	1.54	1.56	3.52	3.85
29	1.96	-	1.67	2.37	1.88	1.65	1.56	1.55	1.54	1.56	2.19	2.87
30	1.87	-	1.67	2.35	1.77	1.64	1.56	1.54	1.54	1.57	1.84	2.89
31	1.75	-	2.82	-	1.88	-	1.56	1.55	-	1.57	-	2.67
Mean	3.66	5.45	2.60	2.90	1.96	1.68	1.59	1.55	1.55	1.57	1.96	2.54
Min.	1.75	4.83	1.67	1.92	1.72	1.62	1.55	1.53	1.52	1.54	1.56	1.69
Max.	5.71	6.57	5.06	5.33	2.85	1.89	1.69	1.56	1.59	1.73	3.52	3.85

Annual Mean : 2.42 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	387	458	167	166	109	25	12	12	9	10	8	15
2	244	380	381	143	111	25	12	8	10	8	10	118
3	146	458	178	83	64	25	13	8	10	9	9	163
4	84	391	185	425	40	24	15	9	10	9	10	50
5	48	472	107	194	52	13	14	9	10	9	13	89
6	163	420	96	118	28	13	11	9	10	9	11	179
7	102	442	119	396	21	13	11	9	10	10	10	103
8	168	412	139	124	19	13	11	9	9	10	10	113
9	206	399	115	54	22	13	10	8	9	10	10	135
10	214	578	133	37	32	13	10	8	8	10	23	46
11	151	588	93	80	52	13	10	9	8	10	14	50
12	209	446	86	152	25	13	10	9	9	10	28	55
13	492	384	80	119	20	12	10	8	8	10	57	145
14	430	425	77	45	18	13	10	8	8	10	26	90
15	437	399	63	27	16	13	12	9	8	11	19	85
16	336	391	90	84	16	13	12	9	8	10	23	21
17	258	391	98	152	25	13	10	8	8	10	27	17
18	306	345	64	182	26	15	10	8	8	10	30	15
19	299	659	77	92	25	15	10	8	8	10	20	20
20	176	512	107	40	25	13	9	8	8	10	36	120
21	268	592	54	50	25	14	9	8	8	9	100	46
22	370	468	64	163	18	13	9	9	8	9	41	62
23	327	407	59	138	19	12	9	8	9	10	84	28
24	338	441	28	117	25	12	9	8	8	9	60	27
25	120	367	21	117	23	12	10	9	8	17	47	95
26	96	407	17	81	24	12	9	8	8	11	36	116
27	45	555	18	63	24	13	10	9	8	9	40	53
28	25	383	18	79	26	12	10	9	8	9	175	213
29	30	-	14	63	25	13	9	9	8	9	47	112
30	24	-	14	61	19	12	9	8	8	10	22	114
31	18	-	108	-	25	-	9	9	-	10	-	96
Mean	210	449	93	121	32	14	10	9	9	9	35	83
Min.	18	345	14	27	16	12	9	8	8	8	9	15
Max.	492	659	381	425	111	25	15	9	10	17	175	213

Annual Mean : 90 (m<sup>3</sup>/sec)

Annual Total : 2,750 (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 1992 (Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.46	2.61	2.59	3.37	2.56	2.52	1.62	1.58	3.38	2.02	2.35	3.94
2	3.10	3.57	2.40	3.84	2.92	2.97	1.65	1.74	2.50	2.15	3.13	4.56
3	2.63	3.66	2.85	2.95	2.41	2.21	1.65	1.77	2.28	2.14	2.34	4.81
4	2.73	2.90	2.38	3.60	2.50	2.21	2.25	1.79	2.12	1.94	2.05	4.20
5	2.19	3.05	2.30	3.52	2.37	2.10	1.85	1.77	2.76	1.93	1.90	5.62
6	1.94	2.49	3.29	2.92	1.96	2.23	1.75	1.70	2.63	2.01	1.85	3.54
7	2.67	4.04	3.46	2.37	1.89	2.42	1.73	1.65	2.43	1.96	1.85	2.80
8	2.66	3.49	2.81	2.65	1.89	3.18	1.85	1.65	2.56	2.74	1.90	2.63
9	3.05	3.56	3.04	0.25	1.82	2.17	1.76	1.65	2.26	2.73	1.90	2.96
10	3.27	5.23	3.50	2.56	1.83	2.06	1.73	1.60	2.10	2.68	1.93	3.02
11	5.29	3.20	5.38	3.30	1.77	1.94	1.70	1.60	1.99	2.52	2.03	3.07
12	3.17	2.71	3.78	2.80	1.76	1.85	1.65	1.59	2.02	2.17	2.21	2.75
13	3.95	2.76	4.16	2.52	1.77	1.80	1.72	1.58	2.12	2.09	2.10	2.62
14	2.86	6.08	4.06	2.91	2.06	1.75	1.70	1.58	2.15	2.06	2.12	2.92
15	3.44	3.79	3.97	2.67	2.20	1.71	1.67	1.58	2.14	2.17	2.12	3.22
16	2.68	2.66	4.00	3.63	1.89	1.70	1.62	1.62	2.13	2.25	2.53	4.66
17	2.39	3.92	4.48	4.00	1.78	1.67	1.63	1.60	2.21	2.16	5.13	3.38
18	2.57	4.12	4.53	5.19	1.75	1.66	1.60	1.60	1.99	2.12	4.19	2.86
19	2.89	4.21	4.96	4.15	1.74	1.79	1.60	1.60	1.99	2.26	3.06	2.62
20	3.00	3.37	4.84	4.44	1.73	1.71	1.59	1.60	1.95	2.02	2.70	2.51
21	2.58	4.62	4.45	4.18	1.70	1.67	1.60	1.60	1.95	2.08	2.26	3.25
22	2.38	3.66	3.89	3.40	1.70	1.65	1.59	1.60	1.93	2.83	2.89	2.43
23	4.29	5.22	3.94	3.06	1.69	1.63	1.58	2.54	1.85	2.83	3.30	3.20
24	4.29	3.21	3.45	4.13	1.67	1.64	1.57	1.62	1.92	2.07	2.70	2.93
25	3.25	2.69	3.05	2.94	1.83	1.63	1.57	1.67	2.29	2.02	3.28	2.95
26	3.19	2.50	3.49	2.90	2.56	1.63	1.58	2.77	2.02	2.58	2.88	2.75
27	3.60	2.49	2.69	3.10	2.03	1.63	1.59	2.55	1.94	2.40	2.62	2.50
28	2.73	2.94	2.60	1.84	1.85	1.65	1.58	6.79	1.84	2.24	2.43	2.53
29	3.18	2.82	3.46	2.73	1.98	1.64	1.59	3.50	1.90	2.43	2.86	3.62
30	3.06	-	3.67	2.52	2.75	1.64	1.59	4.28	1.95	2.56	4.13	2.81
31	2.88	-	3.74	-	3.54	-	1.56	5.10	-	2.41	-	2.74
Mean	3.04	3.53	3.59	3.15	2.06	1.94	1.67	2.16	2.18	2.28	2.62	3.24
Min.	1.94	2.49	2.30	0.25	1.67	1.63	1.56	1.58	1.84	1.93	1.85	2.43
Max.	5.29	6.08	5.38	5.19	3.54	3.18	2.25	6.79	3.38	2.83	5.13	5.62

Annual Mean : 2.62 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 1992 (unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	60	70	69	132	67	64	8	7	133	25	45	192
2	108	152	56	181	93	97	9	12	63	32	111	269
3	72	161	88	96	57	36	9	13	40	31	44	304
4	79	92	47	155	63	36	38	14	30	21	26	223
5	34	104	42	147	47	29	17	13	81	20	19	431
6	21	62	125	93	22	37	13	11	72	24	17	149
7	74	204	141	47	18	58	12	9	58	22	17	84
8	74	144	85	73	18	115	17	9	67	79	19	72
9	104	151	103	19	15	33	13	9	39	79	19	96
10	123	367	145	67	16	27	12	8	29	75	20	101
11	377	117	391	126	13	21	11	8	23	64	25	106
12	114	77	174	84	13	17	9	7	25	33	36	80
13	193	81	218	64	13	15	11	7	30	29	29	71
14	89	514	206	92	27	13	11	7	32	27	30	93
15	139	175	195	74	35	11	10	7	31	33	30	119
16	75	74	199	158	18	11	8	8	31	38	65	283
17	48	190	258	199	14	10	8	8	36	33	352	133
18	68	213	265	361	13	9	8	8	23	30	222	89
19	91	224	326	217	12	14	8	8	23	39	105	71
20	100	132	308	253	12	11	7	8	21	25	77	64
21	68	277	255	220	11	10	8	8	21	28	39	121
22	47	161	186	135	11	9	7	8	20	86	91	58
23	234	366	192	105	10	8	7	65	17	86	126	117
24	234	118	140	214	10	9	7	8	20	27	77	94
25	121	76	104	95	16	8	7	10	41	25	124	96
26	116	63	144	92	67	8	7	82	25	68	90	80
27	155	62	76	108	25	8	7	66	21	56	71	63
28	79	95	70	16	17	9	7	655	16	38	58	65
29	115	85	141	79	23	9	7	145	19	58	89	157
30	105	-	162	64	80	9	7	233	21	67	214	85
31	90	-	170	-	149	-	6	347	-	57	-	79
Mean	110	162	164	126	32	25	10	58	37	44	76	130
Min.	21	62	42	16	10	8	6	7	16	20	17	58
Max.	377	514	391	361	149	115	38	655	133	86	352	431

Annual Mean : 81 (m<sup>3</sup>/sec)

Annual Total : 2,545 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year : 1993 (Gauge Reading, Unit : m)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.58	2.94	2.50	3.67	2.50	1.90	1.74	1.67	1.73	1.74	1.78	3.04
2	3.52	2.89	2.36	3.60	5.30	1.90	1.75	1.65	1.74	1.75	1.78	4.11
3	2.59	4.49	2.70	4.52	3.73	1.85	1.74	1.65	1.74	1.75	1.60	3.49
4	3.17	6.91	3.32	3.40	2.69	1.85	1.72	1.65	1.74	1.73	1.60	2.45
5	2.77	6.32	3.30	2.99	2.69	1.82	1.72	1.65	1.74	1.75	1.64	2.57
6	4.24	5.97	3.12	3.96	2.52	2.29	1.70	1.72	1.74	1.77	1.65	3.52
7	4.67	6.47	3.05	4.91	2.58	2.03	1.70	1.67	1.79	1.85	1.64	3.89
8	3.36	4.37	3.48	4.89	2.43	2.07	1.68	1.70	1.75	1.85	1.77	2.79
9	3.49	4.72	3.05	4.48	2.17	2.21	1.68	1.75	1.66	1.92	2.03	3.85
10	3.38	3.38	4.00	4.47	2.16	2.12	1.74	1.75	1.70	1.92	1.98	2.77
11	3.24	2.91	7.23	4.71	1.90	2.50	1.70	1.75	1.66	1.94	1.82	2.03
12	3.31	2.74	4.55	3.93	1.90	2.22	1.70	1.75	1.67	1.97	1.75	3.70
13	3.27	2.64	5.86	3.92	1.90	2.21	1.69	1.75	1.67	2.00	2.19	2.56
14	2.70	2.60	3.45	4.27	1.90	2.58	1.69	1.75	1.66	1.97	2.28	3.18
15	2.50	2.79	2.88	4.31	1.85	2.27	1.70	1.79	1.68	1.97	2.20	2.40
16	3.05	2.73	2.77	3.29	1.84	2.40	1.70	1.75	1.70	1.90	2.95	2.40
17	3.18	3.62	3.37	3.37	1.84	2.05	1.68	1.75	1.71	1.90	2.50	2.41
18	3.83	4.04	4.20	3.04	1.84	2.30	1.68	1.75	1.68	1.93	2.48	2.65
19	4.02	2.99	5.15	3.16	1.85	2.16	1.67	1.74	1.70	1.92	2.20	2.89
20	4.21	3.58	3.31	3.08	1.80	2.06	1.69	1.75	1.77	1.93	2.40	3.78
21	3.07	2.57	4.25	3.13	1.83	1.98	1.67	1.74	1.77	1.92	2.42	3.17
22	4.64	3.05	3.75	3.02	1.82	2.04	1.68	1.74	1.77	1.92	2.53	4.30
23	7.04	3.60	3.45	2.79	1.80	1.95	1.68	1.74	1.77	1.91	2.51	4.16
24	5.78	3.00	3.40	2.94	1.83	1.90	1.68	1.73	1.80	1.91	2.54	3.06
25	5.25	2.56	3.61	2.61	1.75	1.84	1.68	1.72	1.80	1.89	3.12	2.52
26	6.29	2.63	3.48	2.57	1.75	1.80	1.58	1.72	1.80	1.89	2.85	2.72
27	5.18	2.57	3.79	2.50	1.75	1.75	1.67	1.73	1.75	1.89	2.83	2.20
28	4.71	2.64	4.45	2.66	1.76	1.74	1.67	1.70	1.72	1.90	3.00	2.12
29	5.96	-	4.30	2.44	3.25	1.75	1.66	1.70	1.70	1.95	3.37	2.28
30	4.68	-	3.93	2.42	2.15	1.72	1.68	1.73	1.73	1.95	3.13	2.30
31	3.76	-	3.81	-	2.00	-	1.68	1.74	-	1.90	-	2.49
Mean	4.01	3.63	3.74	3.50	2.23	2.04	1.69	1.72	1.73	1.89	2.28	2.96
Min.	2.50	2.56	2.36	2.42	1.75	1.72	1.58	1.65	1.66	1.73	1.60	2.03
Max.	7.04	6.91	7.23	4.91	5.30	2.58	1.75	1.79	1.80	2.00	3.37	4.30

Annual Mean : 2.62 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year : 1993 (unit : m<sup>3</sup>/sec)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	153	95	63	162	63	19	12	10	12	12	14	103
2	147	91	46	155	378	19	13	9	12	13	14	212
3	69	260	77	264	169	17	12	9	12	13	8	144
4	114	680	128	135	76	17	11	9	12	12	8	60
5	82	559	126	99	76	15	11	9	12	13	9	68
6	228	493	110	194	64	41	11	11	12	13	9	147
7	284	589	104	319	68	25	11	10	14	17	9	186
8	132	244	143	316	58	27	10	11	13	17	13	83
9	144	291	104	258	33	36	10	13	9	20	25	182
10	133	133	199	257	33	30	12	13	11	20	23	82
11	120	92	751	290	19	63	11	13	9	21	15	25
12	127	79	268	191	19	36	11	13	10	22	13	166
13	123	72	473	190	19	36	10	13	10	24	34	67
14	77	70	140	231	19	68	10	13	9	22	40	115
15	63	83	90	236	17	40	11	14	10	22	35	56
16	104	79	82	125	16	56	11	13	11	19	96	56
17	115	157	132	132	16	26	10	13	11	19	63	57
18	180	204	223	103	16	42	10	13	10	20	62	73
19	201	99	355	113	17	33	10	12	11	20	35	91
20	224	153	127	106	15	27	10	13	13	20	56	174
21	106	68	229	111	16	23	10	12	13	20	58	114
22	280	104	171	101	15	26	10	12	13	20	65	235
23	708	155	140	83	15	21	10	12	13	19	64	218
24	459	100	135	95	16	19	10	12	15	19	65	105
25	370	67	156	70	13	16	10	11	15	18	110	64
26	554	72	143	68	13	15	7	11	15	18	88	78
27	359	68	175	63	13	13	10	12	13	18	86	35
28	290	72	255	74	13	12	10	11	11	19	100	30
29	491	-	235	59	121	13	9	11	11	21	132	40
30	286	-	191	58	32	11	10	12	12	21	111	42
31	172	-	177	-	24	-	10	12	-	19	-	62
Mean	222	187	185	155	48	28	10	12	12	18	49	102
Min.	63	67	46	58	13	11	7	9	9	12	8	25
Max.	708	680	751	319	378	68	13	14	15	24	132	235

Annual Mean : 86 (m<sup>3</sup>/sec)

Annual Total : 2,686 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.59	3.38	4.89		1.97	1.67	1.64	1.60	1.66	1.65	2.04	2.58
2	2.60	4.25	3.86		1.95	1.67	1.68	1.60	1.70	1.62	1.77	2.10
3	2.48	4.25	4.98		1.90	1.65	1.65	1.60	1.70	1.64	1.90	1.90
4	2.60	4.66	7.28		1.85	1.68	1.65	1.65	1.67	1.71	2.33	1.95
5	2.77	3.74	5.30		2.85	1.63	1.65	1.64	1.67	1.67	2.26	2.03
6	2.67	3.83	4.27		2.13	1.65	1.60	1.62	1.74	1.71	2.05	2.45
7	2.94	3.30	5.98		1.90	1.70	1.60	1.64	1.75	1.60	1.92	2.53
8	3.08	3.08	6.65		1.80	1.75	1.60	1.64	1.76	1.60	1.65	3.76
9	4.26	3.17	4.83		1.78	1.65	1.60	1.66	1.76	1.60	1.65	2.17
10	5.61	3.33	4.83		1.78	1.65	1.60	1.60	1.76	1.63	1.65	2.83
11	3.77	4.33	6.23		1.92	1.65	1.60	1.60	1.76	1.81	2.03	3.16
12	3.03	4.54	7.14		2.69	1.65	1.60	1.63	1.76	1.76	1.70	2.23
13	2.75	4.30	5.72		2.15	1.63	1.60	1.60	1.74	1.80	1.70	3.10
14	3.89	4.45	5.25		1.90	1.64	1.60	1.60	1.60	1.79	1.65	2.63
15	3.51	3.23	4.93		1.80	1.65	1.60	1.60	1.59	1.70	1.65	3.23
16	5.62	3.46	4.50		1.75	1.64	1.60	1.60	1.70	1.67	1.65	2.27
17	5.32	3.15	3.73		1.77	1.64	1.60	1.67	1.71	1.67	2.74	1.70
18	3.07	3.06	3.69		1.78	1.65	1.73	1.68	1.72	1.67	2.43	1.65
19	4.17	5.64	6.76		1.80	1.65	1.65	1.68	1.72	1.79	2.76	1.60
20	3.79	3.57	5.88		1.83	1.65	1.65	1.73	1.68	1.65	2.28	1.60
21	3.82	3.03	3.55		1.80	1.65	1.60	1.70	1.70	1.65	2.92	1.60
22	3.50	2.77	5.92		1.80	1.64	1.60	1.70	1.67	1.64	2.00	1.60
23	3.50	3.43	5.92		1.80	1.63	1.60	1.70	1.72	1.64	2.19	1.60
24	2.89	3.48	6.63		1.75	1.60	1.60	1.65	1.74	1.65	1.93	1.60
25	3.48	3.63	5.73		1.77	1.65	1.60	1.60	1.75	1.66	2.32	1.60
26	3.10	4.88	6.21		1.77	1.65	1.58	1.68	1.76	1.64	2.00	1.60
27	3.78	7.75	4.30		1.75	1.65	1.60	1.68	1.62	1.65	1.90	1.60
28	4.83	4.46	5.03		1.77	1.65	1.60	1.70	1.60	1.74	1.72	1.60
29	3.46	-	4.71		1.77	1.65	1.60	1.77	1.60	1.70	3.19	1.70
30	4.96	-	4.12		1.77	1.65	1.60	1.65	1.63	1.66	2.58	1.78
31	3.41	-	3.25	-	1.77	-	1.60	1.61	-	1.93	-	1.92
Mean	3.59	3.93	5.23		1.90	1.65	1.62	1.65	1.70	1.69	2.09	2.12
Min.	2.48	2.77	3.25		1.75	1.60	1.58	1.60	1.59	1.60	1.65	1.60
Max.	5.62	7.75	7.28		2.85	1.75	1.73	1.77	1.76	1.93	3.19	3.76
Annual Mean :	(m)											

Annual Mean : 78 (m<sup>3</sup>/sec)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	69	133	316	32	22	10	9	8	9	9	26	68
2	70	229	183	32	21	10	10	8	12	8	13	29
3	62	229	329	32	19	9	9	8	11	9	19	19
4	70	283	762	32	17	10	9	9	10	11	44	21
5	82	170	378	32	88	8	9	9	10	10	39	25
6	74	180	231	32	31	9	8	8	12	11	26	60
7	95	126	495	32	19	11	8	9	13	8	20	65
8	106	106	625	32	15	13	8	8	13	8	9	172
9	230	114	307	32	14	9	8	9	13	8	9	33
10	430	129	307	32	14	9	8	8	13	8	9	86
11	173	239	542	32	20	9	8	8	13	15	25	113
12	102	266	730	32	76	9	8	8	13	13	11	37
13	80	235	449	32	32	8	8	8	12	15	11	108
14	186	255	370	32	19	9	8	8	8	14	9	72
15	146	120	321	32	15	9	8	8	7	11	9	120
16	431	141	261	32	13	9	8	10	11	10	9	40
17	382	112	169	32	13	9	8	10	11	10	79	11
18	106	105	165	32	14	9	12	10	11	10	58	9
19	219	435	648	32	15	9	9	10	11	14	81	8
20	175	152	477	32	16	9	9	12	10	9	40	8
21	179	102	150	32	15	9	8	11	11	9	93	8
22	145	82	484	32	15	9	8	11	10	9	24	8
23	145	138	484	32	15	8	8	11	11	9	34	8
24	91	143	621	32	13	8	8	9	12	9	20	8
25	143	158	450	32	13	9	8	8	13	9	43	8
26	108	314	538	32	13	9	7	10	13	9	24	8
27	174	872	235	32	13	9	8	10	8	9	19	8
28	307	256	336	32	13	9	8	11	8	12	11	8
29	141	-	290	32	13	9	8	13	8	11	116	11
30	326	-	213	32	13	9	8	9	8	9	68	14
31	136	-	121	-	13	-	8	8	-	20	-	20
Mean	167	208	387	32	21	9	8	9	11	10	33	39
Min.	62	82	121	32	13	8	7	8	7	8	9	8
Max.	431	872	762	32	88	13	12	13	13	20	116	172
Annual Mean :	78 (m <sup>3</sup> /sec)											
Annual Total :	2,443 (10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	1995 (Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.27	3.96	5.05	3.07	4.06	2.08	1.98	1.73	1.60	1.92	2.15	3.23
2	2.48	4.62	6.41	3.16	2.72	2.03	2.03	1.73	1.55	1.86	2.08	2.63
3	2.52	7.12	5.42	2.68	2.39	1.87	2.05	1.75	1.55	1.85	2.10	2.76
4	2.63	4.81	5.24	2.65	2.20	1.73	1.97	1.69	1.55	1.88	2.08	2.28
5	2.75	3.60	7.88	3.21	2.33	1.80	2.05	1.77	1.55	1.86	2.00	3.40
6	3.45	5.35	4.49	5.32	2.13	2.07	2.20	1.83	1.71	1.88	2.00	3.31
7	3.55	3.92	5.15	3.42	2.05	2.18	2.05	1.75	1.63	1.83	2.20	4.12
8	2.84	4.19	4.52	2.72	2.18	2.73	2.09	1.72	1.70	1.87	2.82	4.54
9	2.45	3.33	3.90	2.78	2.07	3.35	3.51	1.72	1.73	1.80	2.38	3.55
10	2.84	4.18	2.79	2.61	2.07	2.33	2.62	1.68	1.72	1.91	2.50	3.48
11	3.82	4.08	2.66	2.45	3.60	2.20	2.72	1.70	1.78	1.91	2.83	3.45
12	4.29	7.98	2.55	2.42	2.63	2.22	2.25	1.70	1.78	2.01	2.28	4.77
13	3.52	5.07	3.63	2.28	2.32	2.10	2.11	1.60	1.78	1.98	3.77	4.73
14	3.06	6.18	3.73	2.28	2.18	2.08	2.00	1.60	1.79	2.04	2.71	3.76
15	2.48	3.95	3.95	2.37	1.73	2.13	2.00	1.72	1.79	2.12	3.09	3.86
16	1.90	3.58	3.95	2.60	2.05	2.17	1.97	1.70	1.80	1.99	3.35	3.99
17	2.50	3.02	4.23	4.47	2.40	2.05	1.93	1.73	1.80	3.31	3.05	3.61
18	2.47	2.93	5.70	3.56	2.34	2.10	1.85	1.73	1.81	2.38	3.42	3.41
19	2.98	3.53	5.41	3.12	2.05	2.43	1.87	1.73	1.80	2.77	3.68	3.30
20	3.17	5.17	3.68	3.15	3.04	2.50	1.95	1.75	1.81	2.18	2.78	3.42
21	4.62	3.78	2.98	2.27	2.33	2.67	1.98	1.72	1.82	2.45	5.51	3.37
22	4.97	3.35	3.85	1.88	2.32	4.95	1.88	1.88	1.84	2.20	4.04	3.50
23	3.09	5.68	4.48	1.83	2.07	3.08	1.85	1.88	1.88	2.15	3.66	3.38
24	3.74	4.99	4.57	2.27	1.93	2.33	1.88	1.85	1.89	2.34	4.02	3.31
25	4.60	4.50	3.92	1.90	1.87	2.18	1.87	1.90	1.85	2.35	3.13	3.11
26	3.26	4.75	2.77	1.87	1.77	1.77	1.58	1.85	1.84	2.22	5.84	2.95
27	4.00	6.62	2.97	1.97	1.68	2.47	1.60	1.82	1.87	2.03	4.81	2.62
28	3.37	5.80	3.03	1.97	1.72	2.25	1.60	1.85	1.80	2.38	3.34	2.60
29	3.20	-	4.45	2.71	1.73	2.18	1.60	1.85	1.83	2.12	3.40	2.54
30	2.65	-	3.85	4.16	1.88	2.08	1.77	1.85	1.96	2.00	4.28	2.37
31	2.78	-	3.03	-	1.90	-	1.60	1.72	-	1.93	-	2.35
Mean	3.17	4.64	4.20	2.77	2.25	2.01	1.76	1.76	1.76	2.11	3.18	3.35
Min.	1.90	2.93	2.55	1.83	1.68	1.73	1.58	1.60	1.55	1.80	2.00	2.28
Max.	4.97	7.98	7.88	5.32	4.06	4.95	3.51	1.90	1.96	3.31	5.84	4.77

Annual Mean : 2.80 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	1995 (unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	40	194	339	106	206	28	23	12	8	20	32	120
2	62	277	577	113	78	25	25	12	6	17	28	72
3	64	726	398	75	48	17	26	13	6	17	29	81
4	72	304	369	73	35	12	22	10	6	18	28	40
5	80	155	904	118	44	15	26	13	6	17	24	135
6	140	386	260	382	31	27	35	16	11	18	24	217
7	150	190	355	137	26	34	26	13	8	16	35	213
8	87	222	264	78	34	79	29	11	11	17	85	266
9	60	129	187	82	27	131	146	11	12	15	47	150
10	87	220	83	70	27	44	71	10	11	19	63	143
11	179	207	74	60	155	35	78	11	14	19	86	140
12	234	929	66	58	72	36	38	11	14	24	40	298
13	147	342	158	40	43	29	30	8	14	23	173	293
14	105	532	169	40	34	28	24	8	14	26	77	172
15	62	193	193	47	12	31	24	11	14	30	107	183
16	19	153	193	70	26	33	22	11	15	23	131	198
17	63	101	226	257	56	26	20	12	15	127	104	156
18	61	94	445	151	44	29	17	12	15	47	137	136
19	98	148	396	110	26	58	17	12	15	82	163	126
20	114	358	163	112	103	63	21	13	15	34	82	137
21	277	174	98	40	44	74	23	11	15	60	473	132
22	327	131	182	18	43	324	18	18	16	35	204	145
23	107	442	258	16	27	106	17	18	18	32	161	133
24	170	330	271	40	20	44	18	17	18	44	201	127
25	275	261	190	19	17	34	17	19	17	45	111	109
26	122	295	82	17	13	34	7	17	16	36	470	96
27	199	619	97	22	10	61	8	15	17	25	304	71
28	132	463	102	22	11	38	8	17	15	47	130	70
29	117	-	255	77	12	34	8	17	16	30	135	65
30	73	-	182	218	18	28	13	17	22	24	233	47
31	82	-	102	-	19	-	8	11	-	20	-	45
Mean	123	306	246	89	44	52	28	13	13	33	129	136
Min.	19	94	66	16	10	12	7	8	6	15	24	40
Max.	327	929	904	382	206	324	146	19	22	127	470	298

Annual Mean : 101 (m<sup>3</sup>/sec)

Annual Total : 3,143 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 1996 (Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.37	2.85	4.03	2.23	1.80	1.77	1.92	1.60	1.80	1.70		2.50
2	2.73	2.72	3.03	2.14	1.80	1.83	1.83	1.60	1.79	1.93		2.43
3	3.15	3.07	2.96	2.40	1.80	1.97	1.83	1.60	1.73	2.67		2.63
4	3.12	2.63	3.27	2.03	1.75	1.85	1.77	1.60	1.73	2.67		2.93
5	3.04	2.88	4.64	2.38	1.75	1.80	1.77	1.60	1.73	2.08		2.88
6	2.83	3.72	2.78	2.05	1.70	1.80	1.77	1.60	1.70	1.94		2.98
7	2.99	3.98	2.50	1.95	1.65	1.80	1.77	1.60	1.67	2.02		2.22
8	3.71	3.37	3.23	1.87	1.63	1.80	1.82	1.60	1.67	2.67		2.08
9	3.72	5.37	3.07	1.95	1.67	1.75	1.73	1.60	1.67	2.13		2.40
10	2.83	3.61	3.33	2.26	1.63	1.75	1.70	3.53	1.67	2.43		2.15
11	2.55	3.65	3.97	1.93	1.63	1.75	1.70	3.18	1.67	1.90		2.60
12	3.18	5.07	3.83	1.90	1.64	1.85	1.77	2.52	1.67	1.83		2.63
13	4.67	3.94	5.10	1.82	1.63	2.08	1.77	2.00	1.67	1.78		4.93
14	3.91	3.57	3.32	2.02	1.67	1.85	1.77	1.90	1.67	1.85		3.98
15	3.18	3.27	4.39	2.42	1.67	1.80	1.77	2.28	1.67	2.03		2.97
16	3.33	3.48	5.21	3.67	2.41	1.80	1.78	2.00	1.67	2.03		2.63
17	3.20	2.85	3.58	3.16	1.87	1.75	1.80	1.90	1.67	1.77		2.55
18	4.43	3.17	3.13	3.23	1.78	1.77	1.80	1.86	1.67	1.73		2.37
19	3.22	2.96	3.38	3.69	1.80	1.77	1.70	1.70	1.67	1.72		2.64
20	4.30	4.57	3.05	3.47	1.93	1.77	1.70	1.77	1.67	2.12		2.50
21	3.42	4.20	2.53	3.17	1.97	1.77	1.70	1.87	1.67	2.32		2.50
22	3.60	3.47	3.38	3.00	1.89	1.77	1.65	1.97	1.67	2.39		2.37
23	3.48	4.71	3.99	3.27	1.79	1.70	1.60	1.90	1.80	2.17		2.28
24	5.05	3.66	3.75	2.35	2.07	1.77	1.60	1.88	1.78	2.10		2.30
25	3.97	3.98	3.30	2.10	1.87	1.77	1.60	1.92	1.78	2.65		2.32
26	3.72	4.58	3.45	2.00	1.87	1.77	1.58	2.19	1.70	2.16		2.56
27	3.93	3.18	2.98	1.97	1.85	1.77	1.60	2.07	1.70	2.69		2.37
28	3.48	3.17	2.95	1.93	1.82	1.85	1.60	2.23	1.70	2.27		1.77
29	4.48	3.59	2.42	1.83	1.77	1.87	1.60	1.93	1.70	2.75		1.67
30	3.12	-	2.28	1.80	1.77	2.07	1.60	1.83	1.68	2.93		1.60
31	3.40	-	2.25	-	1.80	-	1.60	1.82	-	2.82		1.80
Mean	3.49	3.63	3.39	2.40	1.80	1.81	1.72	1.96	1.70	2.20		2.63
Min.	2.37	2.63	2.25	1.80	1.63	1.70	1.58	1.60	1.67	1.70		1.60
Max.	5.05	5.37	5.21	3.69	2.41	2.08	1.92	3.53	1.80	2.93		4.93
Annual Mean :	(m)											

Annual Mean : 61 (m<sup>3</sup>/sec)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 1996 (unit : m <sup>3</sup> /sec)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	47	88	202	37	15	13	20	16	8	15	11	32	63
2	79	78	102	31	15	16	16	16	8	14	20	32	58
3	112	106	96	56	15	22	16	8	12	74	32	72	72
4	110	72	123	25	13	17	13	8	12	74	32	94	94
5	103	90	280	47	13	15	13	8	12	28	32	90	90
6	86	168	82	26	11	15	13	8	11	21	32	98	98
7	99	197	63	21	9	15	13	8	10	25	32	36	36
8	167	132	120	17	8	15	15	8	10	74	32	28	28
9	168	390	106	21	10	13	12	8	10	31	32	56	56
10	86	156	129	39	8	13	11	148	10	58	32	32	32
11	66	160	195	20	8	13	11	115	10	19	32	70	70
12	115	342	180	19	9	17	13	64	10	16	32	72	72
13	284	192	347	15	8	28	13	24	10	14	32	321	321
14	189	152	128	25	10	17	13	19	10	17	32	197	197
15	115	123	247	58	10	15	13	40	10	25	32	97	97
16	129	143	364	162	57	15	14	24	10	25	32	72	72
17	117	88	153	113	17	13	15	19	10	13	32	66	66
18	252	114	111	120	14	13	15	17	10	12	32	47	47
19	119	96	133	165	15	13	11	11	10	11	32	72	72
20	235	271	104	142	20	13	11	13	10	30	32	63	63
21	137	223	65	114	22	13	11	17	10	43	32	63	63
22	155	142	133	100	18	13	9	22	10	48	32	47	47
23	143	290	198	123	14	11	8	19	15	33	32	40	40
24	339	161	171	45	27	13	8	18	14	29	32	42	42
25	195	197	126	29	17	13	8	20	14	73	32	43	43
26	168	272	140	24	17	13	7	34	11	33	32	67	67
27	191	115	98	22	17	13	8	27	11	76	32	47	47
28	143	114	96	20	15	17	8	37	11	40	32	13	13
29	258	154	58	16	13	17	8	20	11	80	32	10	10
30	110	-	40	15	13	27	8	16	10	94	32	8	8
31	135	-	38	-	15	-	8	15	-	85	-	15	15
Mean	150	167	143	56	15	15	12	26	11	40	32	68	68
Min.	47	72	38	15	8	11	7	8	10	11	32	8	8
Max.	339	390	364	165	57	28	20	148	15	94	32	321	321
Annual Mean :	Annual Total : 1,914 (10 <sup>6</sup> m <sup>3</sup> )												

Annual Mean : 61 (m<sup>3</sup>/sec)

Note : " " : No data is available

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	( Gauge Reading, Unit : m )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.66	2.18	2.99	1.70	2.42	1.67	1.60	1.46	1.75	1.44	1.57	1.80
2	2.63	2.56	2.60	1.70	2.60	1.67	1.60	1.46	1.60	1.44	1.57	2.10
3	2.38	3.98	2.71	2.20	1.80	1.67	1.60	1.46	1.60	1.55	1.57	2.18
4	2.64	3.75	2.52	2.03	1.80	1.60	1.60	1.46	1.46	1.80	1.57	2.25
5	2.84	3.41	2.42	1.93	1.70	1.60	1.60	1.44	1.46	1.83	1.46	2.00
6	2.00	3.73	2.43	1.80	1.70	1.60	1.60	1.46	1.48	1.80	1.46	1.90
7	2.00	2.84	2.63	2.02	1.80	1.60	1.60	1.45	1.48	1.53	1.44	1.80
8	3.62	3.92	2.24	1.83	1.80	1.60	1.60	1.46	1.53	1.44	1.44	2.32
9	3.76	5.68	2.10	2.26	1.80	1.60	1.60	1.45	1.53	1.51	1.40	2.43
10	3.87	3.50	2.12	2.03	1.83	1.60	1.60	1.46	1.46	1.60	1.40	1.97
11	4.51	2.62	3.62	2.47	2.68	1.60	1.60	1.44	1.46	1.75	1.40	1.63
12	2.69	2.41	2.90	3.55	3.23	1.60	1.60	1.44	1.55	1.78	1.40	2.67
13	2.25	5.45	2.37	2.44	2.49	1.75	1.75	1.43	1.46	1.74	1.40	4.35
14	4.53	4.93	2.15	3.20	2.20	1.70	1.75	1.42	1.46	1.60	1.40	2.92
15	5.15	4.53	2.10	3.84	2.20	1.60	1.65	1.42	1.50	1.50	1.40	2.50
16	3.27	2.82	2.00	2.97	2.05	1.75	1.60	1.50	1.53	1.44	1.40	1.88
17	2.59	2.47	2.02	2.48	1.80	1.67	1.60	1.46	1.63	1.44	1.39	1.63
18	2.62	2.60	2.20	3.16	1.80	1.62	1.75	1.46	1.50	1.48	1.39	1.47
19	3.22	4.55	2.20	2.58	1.67	1.62	1.75	1.46	1.49	1.45	1.38	1.40
20	2.43	3.12	1.92	2.35	1.67	1.60	1.60	1.46	1.46	1.45	1.38	1.35
21	2.33	3.16	1.90	2.48	2.40	1.60	1.60	1.46	1.46	1.45	1.50	1.35
22	2.20	3.18	1.97	2.25	2.12	1.60	1.60	1.49	1.45	1.50	1.46	1.47
23	2.35	2.86	1.80	2.42	1.80	1.60	1.60	1.49	1.50	1.60	1.46	1.57
24	2.69	2.66	2.18	2.40	1.70	1.60	1.60	1.68	1.50	1.65	1.73	1.67
25	3.10	4.14	1.90	2.18	1.70	1.60	1.60	1.80	1.80	1.57	1.65	1.60
26	2.82	5.19	1.70	1.93	1.67	1.60	1.58	1.93	1.82	1.60	1.62	2.45
27	2.60	3.57	1.73	1.90	1.67	1.60	1.60	2.01	1.85	1.50	2.07	1.53
28	2.45	4.41	1.93	1.80	1.67	1.60	1.60	2.02	1.85	1.50	2.37	1.55
29	2.47	-	2.20	1.80	1.60	1.60	1.60	1.83	1.63	1.50	2.65	2.20
30	2.40	-	2.10	2.27	1.60	1.60	1.60	1.75	1.44	1.55	2.13	2.32
31	2.32	-	1.95	-	1.60	-	1.60	1.75	-	1.55	-	1.63
Mean	2.88	3.58	2.25	2.33	1.95	1.62	1.62	1.56	1.55	1.57	1.58	2.00
Min.	2.00	2.18	1.70	1.70	1.60	1.60	1.58	1.42	1.44	1.44	1.38	1.35
Max.	5.15	5.68	3.62	3.84	3.23	1.75	1.75	2.02	1.85	1.83	2.65	4.35
Annual Mean :	2.04 (m)											

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	( unit : m <sup>3</sup> /sec )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	74	34	99	11	58	10	8	4	13	4	7	15
2	72	67	70	11	70	10	8	4	8	4	7	29
3	47	197	77	35	15	10	8	4	8	6	7	34
4	72	171	64	25	15	8	8	4	4	15	7	38
5	87	136	58	20	11	8	8	4	4	16	4	24
6	24	169	58	15	11	8	8	4	5	15	4	19
7	24	87	72	25	15	8	8	4	5	6	4	15
8	157	190	38	16	15	8	8	4	6	4	4	43
9	172	442	29	39	15	8	8	4	6	5	3	58
10	184	145	30	25	16	8	8	4	4	8	3	22
11	262	71	157	61	75	8	8	4	4	13	3	8
12	76	57	92	150	120	8	8	4	6	14	3	74
13	38	403	47	59	62	13	13	3	4	12	3	242
14	265	321	32	117	35	11	13	3	4	8	3	93
15	355	265	29	181	35	8	9	3	5	5	3	63
16	123	85	24	97	26	13	8	5	6	4	3	18
17	69	61	25	62	15	10	8	4	8	4	3	8
18	71	70	35	113	15	8	13	4	5	5	3	4
19	119	268	35	68	10	8	13	4	5	4	3	3
20	58	110	20	45	10	8	8	4	4	4	3	2
21	44	113	19	62	56	8	8	4	4	4	5	2
22	35	115	22	38	30	8	8	5	4	5	4	4
23	45	89	15	58	15	8	8	5	5	8	4	7
24	76	74	34	56	11	8	8	10	5	9	12	10
25	108	215	19	34	11	8	8	15	7	9	8	14
26	85	361	11	20	10	8	7	20	15	8	8	60
27	70	152	12	19	10	8	8	24	17	5	27	6
28	60	249	20	15	10	8	8	25	17	5	47	6
29	61	-	35	15	8	8	8	16	8	5	73	35
30	56	-	29	40	8	8	8	13	4	6	31	43
31	43	-	21	-	8	-	8	13	-	6	-	8
Mean	98	168	43	51	26	8	8	7	7	7	10	33
Min.	24	34	11	11	8	8	7	3	4	4	3	2
Max.	355	442	157	181	120	13	13	25	17	16	73	242
Annual Mean :	39 (m <sup>3</sup> /sec)											
Annual Total :	1,199 (10 <sup>6</sup> m <sup>3</sup> )											

**OBSERVED DAILY WATER LEVEL AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	1998												Year
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	1.48	3.62	3.25	4.65	3.83	2.07	2.10	2.63	1.60	2.70	3.29	2.58	
2	1.52	2.66	3.64	5.39	3.98	2.50	2.65	2.30	1.80	2.50	3.62	2.55	
3	1.40	2.33	4.78	3.42	3.80	2.10	2.50	2.95	2.00	2.10	4.28	2.58	
4	1.37	2.77	3.51	3.02	2.73	4.10	2.27	2.20	2.27	1.90	3.43	2.55	
5	1.37	2.45	3.78	2.75	3.00	3.27	2.13	2.03	2.33	1.95	3.01	2.43	
6	1.50	3.23	3.34	2.88	2.88	3.20	2.35	1.78	2.40	2.27	3.17	2.40	
7	1.93	3.07	2.65	3.02	2.50	2.65	2.53	1.65	2.17	2.77	2.73	1.90	
8	1.87	3.98	2.40	4.45	2.20	2.37	2.95	1.83	1.93	2.57	2.52	1.80	
9	2.25	3.08	3.95	2.92	2.40	2.50	3.55	1.90	1.80	2.65	2.45	1.75	
10	2.93	3.48	4.43	3.70	1.90	2.20	2.45	1.80	1.80	2.40	2.58	1.70	
11	2.10	2.97	3.74	6.08	1.97	1.90	2.92	1.70	2.05	2.50	2.87	1.70	
12	1.53	3.40	3.66	6.43	3.98	1.75	2.87	1.80	2.30	2.55	2.93	1.63	
13	1.45	2.73	3.62	4.22	2.60	1.65	2.90	1.80	2.10	2.58	2.89	1.57	
14	1.78	1.73	2.52	4.27	1.90	1.70	3.05	1.70	2.07	2.62	2.87	1.90	
15	2.20	2.10	4.83	5.50	1.80	2.67	2.60	1.70	1.90	2.73	3.25	1.90	
16	2.37	4.04	3.71	4.67	1.70	6.52	2.50	1.70	1.80	2.43	3.28	2.95	
17	3.12	2.93	2.78	3.76	1.70	3.87	2.47	1.90	1.80	2.42	4.65	2.52	
18	3.87	3.80	3.23	2.80	1.80	2.58	2.75	2.30	1.80	2.10	4.62	2.80	
19	2.61	3.03	4.63	4.63	2.40	3.80	2.87	2.40	1.80	2.45	3.57	4.42	
20	2.87	3.07	5.77	3.13	1.90	2.40	2.42	2.20	2.00	3.53	3.03	2.88	
21	2.43	4.15	3.45	3.03	1.70	2.40	2.10	1.83	2.10	2.75	2.75	3.72	
22	2.40	3.63	2.70	2.68	1.60	3.85	2.27	1.80	2.20	3.25	2.50	2.73	
23	1.76	4.37	5.87	3.18	1.60	2.77	2.40	1.90	2.37	2.82	2.48	4.55	
24	1.81	3.15	4.28	2.95	1.60	2.40	2.90	1.90	2.40	3.70	2.35	2.43	
25	1.65	3.17	3.08	3.17	1.60	2.50	2.92	1.70	2.40	3.13	2.42	2.60	
26	1.57	2.10	2.83	2.83	2.48	2.20	1.58	1.60	2.40	2.90	2.40	3.08	
27	1.59	2.57	4.06	3.27	2.50	2.40	2.13	1.80	2.53	2.72	2.48	2.97	
28	2.27	2.50	5.78	2.68	2.10	2.50	5.22	2.30	2.60	2.68	2.40	2.33	
29	1.73	-	5.00	2.59	1.93	2.35	3.38	2.10	2.60	3.95	2.55	2.73	
30	2.54	-	3.79	3.70	1.90	2.25	2.73	2.50	2.65	3.83	2.55	3.30	
31	2.62	-	3.83	-	2.55	-	2.89	2.10	-	4.03	-	4.10	
Mean	2.06	3.08	3.84	3.73	2.34	2.71	2.69	1.99	2.13	2.76	3.00	2.61	
Min.	1.37	1.73	2.40	2.59	1.60	1.65	1.58	1.60	1.60	1.90	2.35	1.57	
Max.	3.87	4.37	5.87	6.43	3.98	6.52	5.22	2.95	2.65	4.03	4.65	4.55	

Annual Mean : 2.74 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	1998												Year
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	5	157	121	281	179	27	29	72	8	77	125	68	
2	6	74	160	393	197	63	73	42	15	63	157	45	
3	3	44	299	137	176	29	63	96	24	29	233	68	
4	2	81	146	101	79	211	39	35	39	19	139	66	
5	2	60	174	80	100	123	31	25	44	21	101	59	
6	5	120	129	90	90	117	45	14	56	39	114	56	
7	20	105	73	101	63	73	65	9	33	81	79	19	
8	17	197	56	255	35	46	96	16	20	67	64	15	
9	38	107	193	93	56	63	150	19	15	73	60	13	
10	94	143	252	166	19	35	60	15	15	56	68	11	
11	29	98	170	514	22	19	93	11	26	63	89	11	
12	6	135	161	581	197	13	89	15	42	66	94	9	
13	4	79	157	225	70	9	92	15	29	68	91	7	
14	14	12	64	231	19	11	104	11	27	71	89	19	
15	35	29	307	411	15	74	70	11	19	79	121	19	
16	46	203	166	284	11	598	63	11	15	59	124	96	
17	110	94	83	172	11	184	61	19	15	58	281	64	
18	184	176	120	84	15	68	80	42	15	29	277	84	
19	70	102	279	279	56	176	89	56	15	60	152	250	
20	89	106	457	110	19	56	58	35	24	148	102	90	
21	59	217	140	102	11	56	29	16	29	80	80	167	
22	56	159	77	75	8	182	39	15	35	121	63	79	
23	13	244	475	115	8	81	56	19	46	85	62	268	
24	15	112	233	96	8	56	92	19	56	166	45	59	
25	9	114	107	114	8	63	93	11	56	111	58	70	
26	7	29	86	86	62	35	7	8	56	92	56	107	
27	7	67	206	123	63	56	31	15	65	78	62	97	
28	39	63	460	75	29	63	365	42	70	75	56	44	
29	12	-	332	69	20	45	134	29	70	193	66	79	
30	66	-	175	166	19	38	79	63	73	179	66	126	
31	71	-	179	-	66	-	91	29	-	203	-	211	
Mean	37	112	195	187	56	89	80	27	35	84	106	77	
Min.	2	12	56	69	8	9	7	8	8	19	45	7	
Max.	184	244	475	581	197	598	365	96	73	203	281	268	

Annual Mean : 90 (m<sup>3</sup>/sec)

Annual Total : 2,835 (10<sup>6</sup> m<sup>3</sup>)



OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.28	3.97	4.07	2.63	2.60	1.50	1.60	1.48	1.60	2.40	2.43	1.60
2	3.40	4.12	3.45	2.53	2.50	1.50	1.60	1.48	1.60	2.20	2.78	1.60
3	4.45	3.75	3.03	2.42	2.10	1.50	1.60	1.49	1.60	2.03	2.73	1.80
4	3.65	3.43	2.87	2.30	2.55	1.50	1.77	1.50	1.60	2.00	3.83	3.63
5	3.23	3.70	2.78	2.30	3.33	1.60	2.33	1.50	1.60	1.80	2.50	3.47
6	2.53	3.53	3.08	2.57	2.50	1.60	2.40	1.50	1.60	1.60	2.13	2.97
7	3.28	4.13	4.78	3.57	2.30	1.70	2.40	1.50	1.60	1.60	1.70	1.93
8	4.02	3.42	4.67	2.60	2.30	1.80	2.10	1.50	1.60	1.60	1.90	1.70
9	5.78	4.17	3.75	2.57	3.02	1.80	2.00	1.50	1.60	1.60	2.53	3.20
10	4.49	4.82	5.32	2.33	2.90	1.80	1.90	1.55	1.60	1.80	2.80	2.90
11	5.00	4.42	4.37	2.30	2.35	1.80	1.80	1.60	1.60	1.80	2.67	3.33
12	4.70	3.40	3.97	2.15	2.35	1.80	1.80	1.80	1.60	1.80	2.33	3.37
13	3.55	3.48	4.27	3.15	2.00	1.80	1.70	1.80	1.60	1.97	1.80	5.05
14	3.17	5.68	6.33	3.40	1.90	1.80	1.60	1.60	1.60	2.40	1.93	4.53
15	3.25	4.07	4.45	4.13	1.90	1.60	1.60	1.60	1.60	2.50	2.62	2.98
16	4.25	4.25	5.57	3.18	1.80	1.60	1.50	1.60	1.80	2.60	2.30	2.30
17	4.13	4.08	5.78	5.35	1.80	1.60	1.50	1.60	1.80	2.40	2.60	2.00
18	3.78	3.60	6.42	4.20	1.80	1.60	1.60	1.60	1.80	2.30	2.30	3.00
19	3.58	3.88	5.77	3.35	1.80	1.60	1.50	1.60	1.80	2.00	2.20	2.10
20	6.13	3.58	4.78	2.60	1.80	1.60	1.50	1.60	1.80	2.30	2.10	2.03
21	3.95	4.55	4.07	2.55	1.80	1.60	1.50	1.60	1.80	2.30	2.53	2.65
22	4.27	4.97	4.05	2.55	1.60	2.30	1.50	1.60	1.90	2.30	3.37	4.73
23	3.67	4.87	3.07	2.50	1.60	2.30	1.50	1.80	2.30	2.00	3.95	3.53
24	5.22	6.55	3.37	2.27	1.60	2.03	1.60	1.80	2.30	2.20	3.90	3.95
25	5.43	3.97	2.97	2.03	1.60	1.80	1.60	1.70	2.20	2.40	4.33	3.85
26	5.45	4.15	2.93	1.87	1.60	1.60	1.58	1.70	2.13	1.80	3.62	5.22
27	4.32	3.73	2.70	2.57	1.60	1.70	1.60	1.70	2.37	1.60	3.07	4.28
28	3.65	5.78	2.60	2.47	1.60	1.80	1.60	1.70	2.13	1.67	1.80	4.07
29	4.18	-	2.80	2.40	1.50	1.80	1.60	1.60	2.00	2.20	1.60	3.18
30	3.50	-	4.18	2.50	1.50	1.70	1.60	1.60	2.10	2.30	1.60	2.85
31	3.38	-	2.87	-	1.50	-	1.60	1.60	-	2.57	-	4.13
Mean	4.12	4.22	4.04	2.78	2.04	1.72	1.71	1.61	1.81	2.07	2.60	3.18
Min.	2.53	3.40	2.60	1.87	1.50	1.50	1.50	1.48	1.60	1.60	1.60	1.60
Max.	6.13	6.55	6.42	5.35	3.33	2.30	2.40	1.80	2.37	2.60	4.33	5.22

Annual Mean : 2.66 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	233	195	207	72	70	5	8	5	8	56	59	8
2	135	213	140	65	63	5	8	5	8	35	83	8
3	255	171	102	58	29	5	8	5	8	25	79	15
4	160	139	89	42	66	5	13	5	8	24	180	159
5	120	166	83	42	129	8	44	5	8	15	63	142
6	65	148	107	67	63	8	56	5	8	8	31	97
7	124	215	300	152	42	11	56	5	8	8	11	20
8	201	137	284	70	42	15	29	5	8	8	19	11
9	460	219	171	67	101	15	24	5	8	8	65	117
10	260	305	381	44	92	15	19	6	8	15	84	92
11	332	250	244	42	45	15	15	8	8	15	74	180
12	288	135	195	32	45	15	15	15	8	15	44	132
13	150	143	231	112	24	15	11	15	8	22	15	339
14	114	442	562	135	19	15	8	8	8	56	20	266
15	121	207	255	215	19	8	8	8	8	63	71	98
16	229	229	422	115	15	8	5	8	15	70	42	42
17	215	209	460	386	15	8	5	8	15	56	70	24
18	175	155	578	223	15	8	5	8	15	42	42	100
19	153	186	457	131	15	8	5	8	15	24	35	29
20	524	153	300	70	15	8	5	8	15	42	29	25
21	193	268	207	66	15	8	5	8	15	42	65	73
22	231	327	205	66	8	42	5	8	19	42	132	293
23	162	312	105	63	8	42	5	15	42	24	193	148
24	365	605	132	39	8	25	8	15	42	35	187	193
25	400	195	97	25	8	15	8	11	35	56	239	182
26	403	217	94	17	8	8	7	11	31	15	157	365
27	237	169	77	67	8	11	8	11	47	8	105	233
28	160	460	70	61	8	15	8	11	31	10	15	207
29	221	-	84	56	5	15	8	8	24	35	8	115
30	145	-	221	63	5	11	8	8	29	42	8	88
31	134	-	89	-	5	-	8	8	-	68	-	215
Mean	225	235	224	89	32	13	14	8	17	32	74	129
Min.	65	135	70	17	5	5	5	5	8	8	8	8
Max.	524	605	578	386	129	42	56	15	47	70	239	365

Annual Mean : 91 (m<sup>3</sup>/sec)

Annual Total : 2,844 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4.12	3.15	4.50	2.37	2.30	1.80	1.80	2.00	1.90	2.00	2.50	2.07
2	2.97	4.25	4.03	4.60	2.00	1.80	1.80	1.90	1.80	2.00	2.00	2.00
3	2.80	3.20	6.43	3.58	2.33	1.80	1.80	1.90	1.70	2.00	2.20	2.00
4	2.87	6.60	5.92	3.50	3.03	2.32	1.80	1.90	1.60	2.00	2.33	1.80
5	4.03	6.30	5.85	2.90	2.80	2.15	1.80	1.90	1.60	1.80	2.00	1.60
6	3.07	7.79	6.30	2.37	3.03	2.67	1.80	1.90	1.60	1.80	1.87	1.60
7	3.00	5.50	4.90	4.97	2.80	3.13	1.80	1.90	1.60	1.80	1.80	1.60
8	2.97	5.53	5.62	4.32	2.60	2.80	1.80	1.80	1.70	1.80	1.80	1.55
9	2.87	4.87	8.17	3.22	2.30	2.50	1.80	1.80	1.70	1.80	2.07	1.55
10	3.77	5.97	6.87	4.00	2.00	2.50	1.80	1.80	1.70	1.60	2.00	2.07
11	3.10	4.47	4.90	5.12	1.80	2.00	1.80	1.80	1.70	1.60	1.97	3.33
12	3.07	3.80	4.60	3.90	1.80	2.00	1.80	1.80	1.70	1.60	3.42	3.13
13	2.67	4.27	6.10	3.83	1.60	1.80	1.80	1.80	1.70	1.90	2.67	5.88
14	2.58	3.98	7.65	5.57	1.60	1.80	1.80	1.70	2.10	2.50	5.25	5.25
15	2.33	2.90	4.50	4.48	1.60	1.60	1.80	1.70	2.30	2.45	3.13	3.13
16	2.57	2.70	3.93	6.12	1.60	1.60	1.80	1.80	1.70	2.37	2.30	2.87
17	2.37	2.50	3.97	5.80	1.60	1.60	1.80	1.80	1.70	2.40	2.60	2.32
18	2.23	3.08	4.58	6.20	1.60	1.60	1.80	1.80	1.90	2.60	2.23	2.95
19	2.97	2.90	6.53	4.58	2.83	1.60	1.80	2.00	2.60	1.83	2.00	2.00
20	2.62	3.82	4.53	4.10	3.35	1.60	1.80	1.60	1.90	2.00	1.80	1.60
21	4.70	4.90	4.38	3.30	2.80	1.80	2.00	1.60	1.80	1.90	1.80	1.60
22	4.32	3.97	3.77	3.17	4.43	1.80	2.00	1.60	1.80	2.30	2.33	1.60
23	4.70	7.32	2.63	3.88	2.80	1.80	2.00	1.60	1.70	2.30	3.72	1.60
24	3.90	4.32	2.40	3.70	2.50	1.80	2.00	1.60	1.60	2.50	3.03	1.60
25	2.90	4.28	2.80	2.80	1.80	1.80	2.00	1.60	1.60	2.50	2.50	1.60
26	3.02	3.18	3.27	2.93	1.80	1.60	2.00	1.60	1.60	2.70	2.47	1.60
27	2.60	5.22	3.30	3.40	1.80	1.60	2.00	1.60	2.00	2.70	2.77	1.60
28	3.12	4.12	3.10	2.63	1.80	1.60	2.00	2.00	3.75	2.70	1.60	1.60
29	2.50	4.32	3.02	2.00	1.80	1.80	2.00	1.90	2.00	2.30	2.90	1.60
30	5.05		2.95	1.90	1.80	1.80	2.10	1.70	2.00	5.10	2.40	1.60
31	3.63		2.37		1.80	2.10	1.70		2.63		1.60	
Mean	3.21	4.46	4.64	3.84	2.25	1.94	1.88	1.77	1.76	2.28	2.37	2.19
Min.	2.23	2.50	2.37	1.90	1.60	1.60	1.80	1.60	1.60	1.60	1.80	1.55
Max.	5.05	7.79	8.17	6.20	4.43	3.13	2.10	2.00	2.00	5.10	3.72	5.88

Annual Mean : 2.71 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	246	138	297	63	57	20	20	33	26	33	83	38
2	121	263	235	311	33	20	20	26	20	33	33	33
3	106	143	630	182	59	20	20	26	15	33	48	33
4	112	666	530	173	127	58	20	26	11	33	59	20
5	235	604	517	115	106	44	20	26	11	20	33	11
6	130	939	604	63	127	96	20	26	11	20	24	11
7	124	454	356	367	106	136	20	26	11	20	20	11
8	121	460	475	272	90	106	20	20	15	20	20	9
9	112	351	1037	145	57	83	20	20	15	20	38	9
10	203	540	724	231	33	83	20	20	15	11	33	38
11	133	293	356	391	20	33	20	20	15	11	30	156
12	130	207	311	219	20	33	20	20	15	11	165	136
13	96	266	565	210	11	20	20	20	15	26	96	523
14	89	229	905	467	11	20	20	20	15	40	83	412
15	59	115	297	294	11	11	20	20	15	57	79	136
16	88	98	222	568	11	11	20	20	15	63	57	112
17	63	83	83	227	508	11	11	20	20	15	66	90
18	50	131	309	584	11	11	20	20	26	90	50	119
19	121	115	651	309	109	11	20	11	33	90	22	33
20	92	209	301	244	158	11	20	11	26	33	20	11
21	326	356	281	152	106	20	33	11	20	26	20	11
22	272	227	203	140	287	20	33	11	20	57	59	11
23	326	826	92	216	106	20	33	11	15	57	198	11
24	219	272	66	195	83	20	33	11	11	83	127	11
25	115	267	106	106	20	20	33	11	11	83	83	11
26	126	141	149	117	20	11	33	11	11	98	80	11
27	90	407	152	163	20	11	33	11	33	98	104	11
28	135	246	133	92	20	11	33	33	33	201	98	11
29	83	272	126	33	20	20	33	26	33	57	115	11
30	380	-	119	26	20	20	40	15	33	387	66	11
31	187	-	63	-	20	-	40	15	-	92	-	11
Mean	151	323	356	232	61	34	25	19	19	63	68	65
Min.	50	83	63	26	11	11	20	11	11	11	20	9
Max.	380	939	1037	584	287	136	40	33	33	387	198	523

Annual Total : 3,679 (10<sup>6</sup> m<sup>3</sup>)

Annual Mean : 118 (m<sup>3</sup>/sec)

**OBSERVED DAILY WATER LEVEL AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 2001 (Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.00	2.80	2.27	4.08	2.00	3.30	1.60	1.60	1.60	2.00	2.80	2.30
2	2.17	2.80	2.93	4.70	2.00	2.87	1.60	1.60	1.60	2.00	3.40	2.00
3	2.20	3.18	3.00	3.33	4.03	2.50	1.60	1.60	1.60	2.00	2.40	2.00
4	3.10	3.92	2.00	3.67	3.73	2.13	1.60	1.60	1.60	2.00	2.30	1.80
5	4.07	3.57	3.80	3.92	2.70	2.00	1.60	1.60	1.60	1.80	2.27	1.80
6	3.92	3.92	4.08	4.25	2.50	2.00	1.60	1.60	1.70	1.80	2.00	1.70
7	3.47	3.63	5.53	5.02	2.50	2.00	1.60	1.60	1.70	1.80	2.00	1.70
8	3.00	3.43	3.82	4.63	2.50	3.30	1.60	1.60	1.70	2.40	2.00	1.70
9	3.50	4.25	3.40	4.18	2.30	2.63	1.60	1.60	1.70	2.30	1.80	1.70
10	4.40	6.43	2.00	3.70	2.30	2.30	1.60	1.60	1.70	2.00	1.80	1.60
11	5.00	3.73	3.01	3.30	2.00	2.30	1.60	1.60	1.70	2.00	1.80	1.50
12	3.73	3.10	4.43	3.48	2.00	2.00	1.60	1.60	1.70	2.00	1.80	1.50
13	2.83	2.70	3.88	3.47	1.80	2.00	1.60	1.60	1.70	2.00	1.60	1.50
14	1.73	3.85	3.28	2.53	1.80	2.00	1.60	1.60	1.70	1.80	1.60	1.50
15	1.70	3.13	2.80	3.30	1.80	2.00	1.60	1.60	1.70	3.55	3.23	1.50
16	1.77	2.80	2.50	3.05	1.60	2.00	1.60	1.60	1.70	2.57	3.37	1.50
17	2.20	2.60	2.33	4.15	1.60	1.80	1.80	1.60	1.70	2.50	2.98	1.50
18	2.30	3.70	2.03	3.13	1.60	1.80	2.00	1.60	1.70	2.40	3.87	2.13
19	3.28	3.12	2.87	2.80	1.60	1.80	2.00	1.60	1.70	2.20	3.73	2.00
20	3.05	3.43	2.63	2.50	3.30	1.60	2.00	1.60	1.70	2.20	3.73	1.60
21	3.13	2.50	2.30	2.50	2.63	1.60	2.10	1.60	1.80	2.00	3.63	1.60
22	4.88	2.17	2.17	2.57	2.60	1.60	2.20	1.55	1.80	2.00	3.17	1.60
23	3.38	2.00	3.70	2.70	2.30	1.60	2.00	1.55	1.80	2.30	2.95	2.10
24	3.73	2.00	4.03	2.60	2.30	1.60	2.00	1.55	1.80	2.57	2.80	2.00
25	3.07	1.80	4.77	3.20	2.00	1.60	1.80	1.55	2.00	2.80	2.45	2.00
26	2.37	1.80	4.40	2.97	2.00	1.60	1.80	1.55	2.00	2.80	2.40	2.00
27	2.50	1.80	3.93	2.50	1.80	1.60	1.60	1.55	2.00	2.97	1.70	1.70
28	4.90	2.23	4.52	2.50	1.80	1.60	1.60	1.60	2.00	2.53	2.17	1.70
29	3.18		4.32	2.00	1.80	1.60	1.60	1.60	2.00	2.30	2.00	2.47
30	4.22		4.98	2.00	1.80	1.60	1.60	1.60	2.00	2.00	2.00	2.48
31	3.03		4.50		1.80	1.60	1.60	1.60	2.00	2.00		3.32
Mean	3.16	3.09	3.43	3.29	2.21	2.01	1.72	1.59	1.76	2.24	2.52	1.87
Min.	1.70	1.80	2.00	2.00	1.60	1.60	1.60	1.55	1.60	1.80	1.60	1.50
Max.	5.00	6.43	5.53	5.02	4.03	3.30	2.20	1.60	2.00	3.55	3.87	3.32

Annual Mean : 2.41 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	Year : 2001 (unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	33	106	54	241	33	152	11	11	11	33	106	57
2	45	106	117	326	33	112	11	11	11	33	140	59
3	48	141	124	156	235	83	11	11	11	33	66	33
4	133	221	33	192	199	42	11	11	11	33	57	20
5	240	181	207	221	98	33	11	11	11	20	54	20
6	221	221	241	263	83	33	11	11	15	20	33	15
7	170	187	460	375	83	33	11	11	15	20	33	15
8	124	166	209	316	83	152	11	11	15	66	33	15
9	173	263	163	254	57	92	11	11	15	57	20	15
10	283	630	33	195	57	57	11	11	15	33	20	11
11	372	199	125	152	33	57	11	11	15	33	20	7
12	199	133	287	171	33	33	11	11	15	33	20	7
13	109	98	216	170	20	33	11	11	15	33	11	7
14	17	213	150	85	20	33	11	11	15	20	11	7
15	15	136	106	152	20	33	11	11	15	179	146	7
16	19	106	83	128	11	33	11	11	15	88	160	7
17	48	90	59	250	11	20	20	11	15	83	122	7
18	57	195	35	136	11	20	33	11	15	66	215	42
19	150	135	112	106	11	20	33	11	15	48	199	33
20	128	166	92	83	152	11	33	11	15	48	199	11
21	136	83	57	83	92	11	40	11	20	33	187	11
22	353	45	45	88	83	11	48	9	20	33	140	11
23	161	33	195	98	57	11	33	9	20	57	119	40
24	199	33	235	90	57	11	33	9	20	88	106	33
25	130	20	336	143	33	11	20	9	33	106	79	33
26	63	20	283	121	33	11	20	9	33	106	66	33
27	83	20	222	83	20	11	11	9	33	121	15	15
28	356	50	300	83	20	11	11	11	33	85	45	15
29	141	-	272	33	20	11	11	11	33	57	33	80
30	259	-	368	33	20	11	11	11	33	33	33	81
31	127	-	297	-	20	-	11	11	-	33	-	154
Mean	148	143	178	161	56	40	17	10	19	56	83	29
Min.	15	20	33	33	11	11	11	9	11	20	11	7
Max.	372	630	460	375	235	152	48	11	33	179	215	154

Annual Mean : 78 (m<sup>3</sup>/sec)

Annual Total : 2,451 (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.37	2.37	3.00	4.18	2.00	1.60	1.60	1.60	1.50	1.60	1.50	1.85
2	2.30	2.30	2.80	3.90	2.00	1.60	1.60	1.60	1.50	1.60	1.50	1.60
3	2.15	2.37	2.30	3.82	2.00	1.60	1.60	1.60	1.50	1.60	1.85	1.70
4	2.40	6.02	2.00	3.37	2.00	1.60	1.60	1.60	1.50	1.70	1.70	1.60
5	3.13	4.12	1.90	4.67	2.00	1.60	1.60	1.60	1.50	1.70	1.60	1.60
6	3.38	4.72	1.80	3.43	2.90	1.60	1.60	1.60	1.50	1.70	1.50	1.73
7	3.32	5.15	1.93	3.73	2.60	1.60	1.60	1.60	1.55	1.70	1.50	2.33
8	2.33	4.43	2.37	3.10	2.20	1.80	1.60	1.60	1.55	1.70	1.50	2.40
9	2.00	5.30	2.43	2.73	2.13	1.80	1.60	1.60	1.55	1.70	1.85	2.33
10	2.43	7.47	2.53	3.20	2.30	1.80	1.60	1.60	1.55	1.70	1.90	2.40
11	2.28	6.08	2.83	2.90	2.60	1.80	1.60	1.60	1.50	1.70	1.60	2.30
12	2.00	4.75	4.15	2.90	2.20	1.60	1.60	1.60	1.50	1.70	1.60	2.17
13	2.05	4.63	3.30	2.90	2.07	1.60	1.60	1.60	1.50	1.70	1.60	2.13
14	3.27	6.97	3.23	2.80	2.00	1.60	1.60	1.55	1.50	1.70	1.50	2.20
15	3.78	6.20	3.42	2.80	2.00	1.60	1.68	1.55	1.50	1.70	1.50	2.10
16	2.37	5.05	3.37	2.90	2.00	1.80	1.68	1.55	1.50	1.70	1.50	3.13
17	2.43	5.30	3.00	3.93	2.00	1.80	1.68	1.55	1.50	1.70	1.90	2.10
18	3.85	7.08	3.37	5.20	2.00	1.80	1.68	1.55	1.58	1.70	2.40	1.80
19	4.80	5.32	3.40	3.87	2.00	1.60	1.68	1.55	1.63	1.55	1.80	1.80
20	4.02	4.78	3.00	4.15	2.00	1.60	1.68	1.55	1.68	1.55	1.80	1.70
21	3.37	4.62	3.03	3.20	1.80	1.60	1.68	1.55	1.68	1.50	2.00	1.70
22	4.97	5.33	2.50	3.55	1.80	1.60	1.60	1.50	1.68	1.50	2.00	1.70
23	5.50	5.50	2.10	3.20	1.80	1.60	1.60	1.50	1.68	1.50	2.00	1.86
24	5.05	4.96	4.55	3.00	1.80	1.60	1.60	1.50	1.60	1.50	1.70	1.93
25	2.87	3.50	3.45	2.90	1.60	1.58	1.60	1.50	1.60	1.50	1.70	2.60
26	4.58	2.83	3.40	2.90	1.60	1.58	1.60	1.50	1.60	1.50	1.60	3.27
27	4.08	2.30	3.65	2.90	1.60	1.58	1.60	1.50	1.60	1.50	1.60	2.77
28	2.30	3.57	5.35	2.00	1.60	1.58	1.60	1.50	1.60	1.50	1.60	2.97
29	2.10		3.58	2.00	1.60	1.58	1.60	1.50	1.60	1.45	1.60	2.35
30	4.88		3.33	2.00	1.60	1.58	1.60	1.50	1.60	1.45	1.60	2.10
31	3.13		3.33		1.60	1.50	1.60	1.50	1.60	1.45	1.60	3.55
Mean	3.21	4.75	3.05	3.27	1.98	1.64	1.62	1.55	1.56	1.60	1.70	2.19
Min.	2.00	2.30	1.80	2.00	1.60	1.58	1.60	1.50	1.50	1.45	1.50	1.60
Max.	5.50	7.47	5.35	5.20	2.90	1.80	1.68	1.60	1.68	1.70	2.40	3.55
Annual Mean :	2.34 (m)											

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JURUG STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	( Gauge Reading, Unit : m )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.62	5.50	4.70	2.70	2.50	1.63	1.60	1.55	1.55	1.55	1.87	1.93
2	2.60	3.75	4.02	2.63	2.57	1.60	1.60	1.55	1.55	1.55	1.63	2.97
3	3.32	2.77	4.33	2.50	2.30	1.60	1.60	1.55	1.55	1.50	1.63	2.93
4	4.60	2.13	5.70	2.03	2.20	1.60	1.60	1.55	1.50	1.60	1.50	2.43
5	3.50	2.80	7.25	1.80	2.03	1.60	1.55	1.57	1.50	1.60	1.50	3.13
6	2.40	2.30	5.37	1.80	2.00	1.60	1.55	1.57	1.50	1.60	1.50	2.78
7	2.00	3.73	4.77	1.80	1.80	1.60	1.55	1.57	1.50	1.60	1.40	2.78
8	2.00	2.93	4.70	1.80	1.70	1.55	1.57	1.55	1.75	1.40	2.83	
9	1.80	4.72	5.63	1.80	2.10	1.60	1.60	1.55	1.55	1.72	1.40	4.43
10	1.80	3.45	4.08	1.80	2.00	1.70	1.60	1.55	1.55	1.60	1.40	4.25
11	1.67	2.63	4.23	2.63	2.10	1.70	1.65	1.55	1.55	1.55	1.40	2.93
12	1.67	3.25	3.67	2.40	3.70	1.70	1.65	1.55	1.60	1.55	1.35	1.97
13	1.60	2.70	3.63	2.00	2.37	1.80	1.65	1.55	1.60	1.55	1.35	2.40
14	1.60	3.00	2.67	1.80	2.20	1.80	1.69	1.55	1.60	1.55	1.35	2.83
15	1.60	3.50	2.87	1.80	2.20	1.80	1.69	1.55	1.66	1.55	1.35	2.60
16	1.60	4.10	3.10	1.80	2.10	1.83	1.65	1.59	1.62	1.63	1.97	2.67
17	1.60	4.70	3.45	1.80	2.10	2.20	1.65	1.59	1.60	1.60	2.47	2.60
18	1.60	4.77	3.70	1.80	2.00	2.20	1.65	1.55	1.65	1.60	2.53	2.60
19	1.60	5.78	2.83	1.80	2.00	1.83	1.65	1.59	1.60	1.60	2.77	2.90
20	1.60	5.02	2.40	1.80	1.80	1.73	1.60	1.59	1.60	1.60	2.28	3.55
21	2.37	5.33	3.07	1.80	1.80	1.63	1.60	1.59	1.55	1.50	2.33	3.43
22	2.87	4.33	6.73	1.80	1.60	1.60	1.65	1.55	1.55	1.50	2.20	3.03
23	4.83	3.50	3.63	2.33	1.60	1.60	1.65	1.55	1.55	1.50	2.37	3.28
24	3.62	4.35	2.93	2.00	1.60	1.60	1.65	1.50	1.55	1.50	2.30	2.73
25	3.07	5.37	2.83	2.00	1.60	1.60	1.68	1.50	1.55	1.40	2.80	3.03
26	2.57	4.08	2.70	1.90	1.60	1.60	1.68	1.55	1.50	1.40	1.93	3.53
27	3.35	6.55	2.50	1.80	1.60	1.60	1.68	1.55	1.50	1.55	1.90	2.80
28	3.42	6.42	2.40	1.80	1.60	1.60	1.68	1.52	1.55	1.60	1.90	2.60
29	4.70		2.50	1.80	1.60	1.60	1.65	1.59	1.55	2.20	1.90	2.83
30	3.27		2.72	1.80	1.60	1.60	1.65	1.55	1.55	1.73	1.93	3.53
31	3.35		3.17		1.60	1.60	1.65	1.50	1.50	1.80		3.22
Mean	2.62	4.05	3.82	1.98	1.99	1.70	1.63	1.55	1.56	1.60	1.85	2.95
Min.	1.60	2.13	2.40	1.80	1.60	1.60	1.55	1.50	1.50	1.40	1.35	1.93
Max.	4.83	6.55	7.25	2.70	3.70	2.20	1.69	1.59	1.66	2.20	2.80	4.43

Annual Mean : 2.27 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Day	( unit : m <sup>3</sup> /sec )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	267	1427	760	83	61	11	10	10	9	9	9	22
2	71	308	407	74	68	10	10	10	9	9	9	115
3	189	91	547	61	43	10	10	10	9	9	8	11
4	698	32	1646	26	36	10	10	10	9	8	10	8
5	233	95	4315	16	26	10	10	9	9	8	10	8
6	52	43	1297	16	25	10	9	9	8	10	8	93
7	25	301	807	16	16	10	10	9	9	8	10	6
8	25	115	760	16	16	13	9	9	9	15	6	100
9	16	773	1567	16	30	10	10	10	9	9	14	6
10	16	220	431	16	25	13	10	10	9	9	10	6
11	12	74	499	74	30	13	11	9	9	9	6	115
12	12	173	282	52	292	13	11	9	10	10	9	5
13	10	83	270	25	49	16	11	9	10	9	5	52
14	10	126	79	16	36	16	13	9	10	9	5	100
15	10	233	105	16	36	16	13	9	12	9	5	71
16	10	440	144	16	30	17	11	10	11	10	23	79
17	10	760	220	16	30	36	11	10	10	10	58	71
18	10	807	292	16	25	36	11	9	11	10	64	71
19	10	1741	100	16	25	17	11	10	10	10	91	110
20	10	990	52	16	16	14	10	10	10	10	42	247
21	49	1258	138	16	16	11	10	10	10	9	8	46
22	105	547	3202	16	10	10	11	10	9	8	36	131
23	848	233	270	46	10	10	11	9	9	8	49	180
24	267	558	115	25	10	10	11	8	9	8	43	86
25	138	1297	100	25	10	10	12	8	9	6	95	131
26	68	431	83	20	10	10	12	9	8	6	22	242
27	196	2873	61	16	10	10	12	9	8	9	20	95
28	213	2651	52	16	10	10	12	8	9	10	20	71
29	760		61	16	10	10	11	10	9	36	20	100
30	178		85	16	10	10	11	9	9	14	22	242
31	196		157	10	10	11	11	8	16	16	167	
Mean	152	667	610	27	33	14	11	11	9	9	11	26
Min.	10	32	52	16	10	10	9	8	8	6	5	22
Max.	848	2873	4315	83	292	36	13	10	12	36	95	600

Annual Mean : 143 (m<sup>3</sup>/sec)

Annual Total : 4,407 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year : 2004 (Gauge Reading, Unit : m)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.57	3.95	2.50	2.40	1.60	1.61	1.65	1.69	1.66	1.62	1.58	1.54
2	2.07	2.80	2.00	2.98	1.60	1.60	1.65	1.69	1.65	1.62	1.58	1.54
3	2.23	2.07	2.77	2.77	1.60	1.60	1.60	1.69	1.65	1.61	1.58	1.54
4	2.00	5.02	2.93	2.30	1.80	1.66	1.60	1.69	1.65	1.61	1.57	1.54
5	2.92	3.03	2.93	2.10	1.80	1.65	1.60	1.69	1.65	1.61	1.57	1.54
6	2.60	2.93	3.23	2.10	1.80	1.65	1.65	1.69	1.65	1.61	1.57	1.53
7	2.33	3.27	2.63	2.60	1.80	1.65	1.65	1.69	1.65	1.61	1.57	1.53
8	2.47	2.63	3.27	1.90	1.70	1.60	1.67	1.69	1.65	1.61	1.57	1.53
9	2.80	2.37	3.83	2.37	1.70	1.60	1.67	1.68	1.65	1.61	1.57	1.53
10	3.17	1.87	3.20	3.57	1.70	1.60	1.65	1.68	1.64	1.61	1.57	1.53
11	2.80	1.80	2.90	3.00	1.70	1.67	1.65	1.68	1.64	1.60	1.57	1.53
12	2.17	1.70	3.77	2.57	1.70	1.67	1.65	1.68	1.64	1.60	1.56	1.53
13	1.83	2.70	4.80	1.93	1.70	1.67	1.70	1.68	1.64	1.60	1.56	1.53
14	1.90	2.00	3.27	1.83	1.70	1.60	2.40	1.68	1.64	1.60	1.56	1.52
15	1.88	2.17	3.43	1.70	1.70	1.60	2.20	1.68	1.64	1.60	1.56	1.52
16	2.55	3.00	2.90	1.70	1.70	1.60	2.03	1.68	1.64	1.60	1.56	1.52
17	3.55	2.40	2.73	1.70	1.80	1.60	1.93	1.67	1.64	1.60	1.56	1.52
18	3.10	2.47	4.60	1.60	1.80	1.70	1.83	1.67	1.63	1.60	1.56	1.52
19	2.13	2.27	3.03	1.60	1.80	1.70	1.73	1.67	1.63	1.59	1.56	1.52
20	2.00	2.67	2.60	1.60	1.80	1.70	1.70	1.67	1.63	1.59	1.55	1.52
21	2.57	3.80	2.40	1.60	1.80	1.65	1.70	1.67	1.63	1.59	1.55	1.51
22	2.57	2.80	3.30	2.00	1.80	1.65	1.70	1.67	1.63	1.59	1.55	1.51
23	2.97	2.73	3.57	1.83	1.80	1.65	1.65	1.67	1.63	1.59	1.55	1.51
24	4.40	2.70	2.60	2.53	2.60	1.60	1.65	1.67	1.63	1.59	1.55	1.51
25	2.70	2.57	1.97	1.80	2.10	1.60	1.65	1.66	1.63	1.59	1.55	1.51
26	3.12	3.65	1.90	1.80	2.00	1.60	1.65	1.66	1.62	1.59	1.55	1.51
27	4.20	3.25	1.83	1.80	1.80	1.60	1.60	1.66	1.62	1.58	1.55	1.51
28	3.47	3.53	1.73	2.67	1.80	1.60	1.60	1.66	1.62	1.58	1.54	1.51
29	2.63	2.50	1.70	1.80	1.70	1.60	1.58	1.66	1.62	1.58	1.54	1.50
30	3.38		3.07	1.80	1.70	1.65	1.58	1.66	1.62	1.58	1.54	1.50
31	3.27		2.23		1.70	1.58	1.58	1.66		1.58		1.50
Mean	2.71	2.79	2.89	2.13	1.78	1.63	1.71	1.68	1.64	1.60	1.56	1.52
Min.	1.83	1.70	1.70	1.60	1.60	1.60	1.58	1.66	1.62	1.58	1.54	1.50
Max.	4.40	5.02	4.80	3.57	2.60	1.70	2.40	1.69	1.66	1.62	1.58	1.54

Annual Mean : 1.97 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JURUG STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 78.25 m  
 Catchment Area : 3,220 km<sup>2</sup>  
 Operated by : PBS

Year : 2004 (unit : m<sup>3</sup>/sec)

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	67	379	61	52	10	10	11	13	12	11	10	9
2	28	95	25	123	10	10	10	11	13	12	11	10
3	39	28	91	91	10	10	10	10	13	12	11	10
4	25	987	115	43	16	12	10	13	12	11	10	9
5	112	132	115	30	16	11	10	13	11	10	9	9
6	71	115	170	30	16	11	11	13	11	10	9	9
7	46	177	75	71	16	11	11	13	11	10	9	9
8	57	75	177	20	13	10	12	13	11	10	9	9
9	95	49	336	49	13	10	12	12	11	10	9	8
10	156	19	163	252	13	10	11	12	11	10	9	8
11	95	16	110	126	13	12	11	12	11	10	9	8
12	34	13	313	67	13	12	11	12	11	10	9	8
13	18	83	827	22	13	12	13	12	11	10	9	8
14	20	25	177	18	13	10	52	12	11	10	9	8
15	20	34	216	13	13	10	36	12	11	10	9	8
16	40	126	110	13	13	10	27	12	11	10	9	8
17	247	52	87	13	16	10	22	12	11	10	9	8
18	144	57	698	10	16	13	18	12	11	10	9	8
19	32	41	132	10	16	13	14	12	11	10	9	8
20	25	79	71	10	16	13	13	12	11	10	9	8
21	67	324	52	10	16	11	13	12	11	10	9	8
22	67	95	184	25	16	11	13	12	11	10	9	8
23	120	87	252	18	16	11	11	12	11	10	9	8
24	584	83	71	64	71	10	11	12	11	10	9	8
25	83	67	23	16	30	10	11	12	11	10	9	8
26	147	276	20	16	25	10	11	12	11	10	9	8
27	485	173	18	16	16	10	10	12	11	10	9	8
28	225	242	14	79	16	10	10	12	11	10	9	8
29	75		13	16	13	10	10	12	11	10	9	8
30	204		137	16	13	11	10	12	11	10	9	8
31	177		39		13	10	10	12	11	10	9	8
Mean	116	140	158	45	17	11	14	12	11	10	9	8
Min.	18	13	13	10	10	10	10	12	11	10	9	8
Max.	584	987	827	252	71	13	52	13	12	11	10	9

Annual Mean : 46 (m<sup>3</sup>/sec)

Annual Total : 1,436 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1				0.39	1.04	0.73	0.72	1.24	0.10	0.14	0.18	
2				0.69	0.85	0.60	0.60	0.85	0.49	0.95	0.18	
3				0.47	0.45	0.41	0.88	0.62	0.73	1.30	0.16	
4				0.50	0.35	0.41	0.70	0.35	0.47	0.73	0.16	
5				0.46	1.15	0.37	1.10	0.30	0.25	0.58	0.16	
6				0.31	0.65	0.61	0.55	0.13	0.17	0.34	0.16	
7				0.12	0.89	0.86	0.59	0.10	0.31	0.14	0.25	
8			1.17	0.12	0.40	0.55	0.80	0.10	0.24	0.14	0.41	
9			0.82	0.10	0.21	0.76	1.30	0.10	0.18	0.14	0.47	
10			0.81	0.46	0.32	0.66	0.84	0.10	0.19	0.14	0.21	
11			0.75	0.20	0.19	0.53	0.52	0.10	0.12	0.14	0.25	
12			0.71	0.10	0.13	0.26	0.57	0.10	0.12	0.14	0.18	
13			0.66	0.27	0.17	1.10	1.10	0.10	0.12	0.14	0.18	
14			0.62	0.24	0.20	0.16	0.55	0.10	0.12	0.14	0.18	
15			0.61	0.10	0.23	0.19	0.35	0.21	0.12	0.14	0.55	
16			0.44	0.32	0.63	0.23	0.33	0.97	0.12	0.14	0.18	
17			0.22	0.20	0.73	0.63	0.23	1.07	0.12	0.14	0.18	
18			0.54	0.78	0.80	0.70	0.13	0.48	0.12	0.14	0.26	
19			0.76	0.11	0.27	1.31	0.11	0.82	0.12	0.14	0.18	
20			0.53	0.10	0.20	0.77	0.11	0.74	0.12	0.14	0.18	
21			0.50	0.10	0.10	0.46	0.11	0.34	0.12	0.14	0.18	
22			1.53	0.10		0.35	0.11	0.13	0.12	0.14	0.18	
23			1.00			0.31	0.11	0.10	0.12	0.18	0.18	
24			0.79			0.29	0.11	0.10	0.12	0.21	0.16	
25			0.40			0.29	0.11	0.10	0.12	0.19	0.16	
26			0.23			0.72	0.11	0.10	0.31	0.18	0.16	
27			0.20			1.16	0.11	0.10	0.25	0.29	0.16	
28			0.40		0.43	0.64	0.11	0.10	0.16	0.30	0.16	
29			1.60		0.12	0.70	0.11	0.10	0.12	0.19	0.16	
30			1.00		1.07	0.82	0.11	0.10	0.12	0.19	0.16	
31			0.50		0.64	-	0.26	0.10	-	0.19	0.16	
Mean						0.56	0.43	0.32	0.20	0.26	0.21	
Min.						0.16	0.11	0.10	0.10	0.14	0.16	
Max.						1.31	1.30	1.24	0.73	1.30	0.55	
Annual Mean :												(m)
Annual Total :												(10 <sup>6</sup> m <sup>3</sup> )

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1				7	41	21	20	56	1	1	2	
2				19	28	15	15	28	10	34	2	
3				10	9	8	30	16	21	62	2	
4				11	6	8	19	6	10	21	2	
5				9	49	6	45	4	3	14	2	
6				5	17	15	13	1	2	5	2	
7				1	30	28	14	1	5	1	3	
8			51	1	7	13	25	1	3	1	8	
9			26	1	3	23	62	1	2	1	10	
10			25	9	5	17	27	1	2	1	3	
11			22	2	2	12	11	1	1	1	3	
12			20	1	1	4	13	1	1	1	2	
13			17	4	2	3	45	1	1	1	2	
14			16	3	2	2	13	1	1	1	2	
15			15	1	3	2	6	3	1	1	13	
16			8	5	16	3	5	36	1	1	2	
17			3	2	21	16	3	43	1	1	2	
18			12	24	25	19	10	10	1	1	4	
19			23	1	4	63	1	26	1	1	2	
20			12	1	2	23	1	22	1	1	2	
21			11	1	1	9	1	5	1	1	2	
22			84	1		6	1	1	1	1	2	
23			38			5	1	1	1	2	2	
24			24			4	1	1	1	3	2	
25			7			4	1	1	1	2	2	
26			3			20	1	1	5	2	2	
27			2			50	1	1	1	3	4	
28			7		8	17	1	1	2	4	2	
29			92		1	19	1	1	1	1	2	
30			38		43	26	1	1	1	2	2	
31			11		17	-	4	1	1	2	-	
Mean						15	12	9	3	6	3	
Min.						2	1	1	1	1	2	
Max.						63	62	56	21	62	13	
Annual Mean :												(m <sup>3</sup> /sec)
Annual Total :												(10 <sup>6</sup> m <sup>3</sup> )

**OBSERVED DAILY WATER LEVEL AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1979		(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	1.77	0.10	0.30	1.33	0.11							0.11	
2	1.57	0.10	0.38	1.25	0.11							0.11	
3	1.00	0.77	0.98	1.00	0.11							0.11	
4	0.60	0.86	1.53	1.22	0.11							0.11	
5	0.33	0.53	1.37	1.99	0.25							0.25	
6	0.30	0.08	0.87	1.81	0.54							0.54	
7	0.32	0.45	0.69	1.53	0.64							0.64	
8	0.37	0.31	0.81	1.00	0.27							0.27	
9	0.23	0.21	0.80	1.13	0.27							0.27	
10	0.73	0.52	1.08	1.46	0.14							0.14	
11	0.89	0.62	0.92	1.86	0.14							0.14	
12	0.99	0.71	0.60	0.70	0.13							0.13	
13	0.77	0.26	0.60	0.50	0.13							0.13	
14	0.69	0.41	1.59	0.50	0.29							0.29	
15	0.96	0.97	1.13	0.50	0.24							0.24	
16	0.75	0.79	1.23	0.50	0.16							0.16	
17	0.72	1.00	0.77	0.43	0.24							0.24	
18	1.17	0.59	0.55	0.40	0.14							0.14	
19	1.57	0.54	0.48	1.04	0.78							0.78	
20	0.75	0.32	0.63	1.48	1.10							1.10	
21	0.75	0.32	0.77	1.56	0.70							0.70	
22	0.60	0.58	1.23	0.90	0.34							0.34	
23	0.51	0.57	1.27	1.13	0.42							0.42	
24	0.41	0.74	1.08	1.00	0.63							0.63	
25	0.28	0.56	1.51	0.94	0.98							0.98	
26	0.20	0.40	1.32	0.77	1.14							1.14	
27	0.19	0.67	1.05	0.56	1.30							1.30	
28	0.14	0.92	1.05	0.48	0.83							0.83	
29	0.14	-	1.20	0.51	0.63							0.63	
30	0.14	-	1.30	0.51	0.31							0.31	
31	0.14	-	-	0.88	-							-	
Mean	0.64	0.53	0.97	1.00									
Min.	0.14	0.08	0.30	0.40									
Max.	1.77	1.00	1.59	1.99									
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1979		(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	112	1	4	65	1							1	
2	89	1	7	57	1							1	
3	38	23	36	38	1							1	
4	15	28	84	55	1							1	
5	5	12	68	140	3							3	
6	4	4	29	116	12							12	
7	5	9	19	84	17							17	
8	6	5	25	38	4							4	
9	3	3	25	47	4							4	
10	21	11	43	77	1							1	
11	30	16	32	123	1							1	
12	37	20	15	19	1							1	
13	23	4	15	11	1							1	
14	19	8	91	11	4							4	
15	35	36	47	11	3							3	
16	22	24	56	11	2							2	
17	20	38	23	8	3							3	
18	51	14	13	7	1							1	
19	89	12	10	41	24							24	
20	22	5	16	79	45							45	
21	22	5	23	87	19							19	
22	15	14	56	31	5							5	
23	11	13	59	47	8							8	
24	8	22	43	38	16							16	
25	4	13	82	34	36							36	
26	2	7	64	23	48							48	
27	2	18	41	13	62							62	
28	1	32	41	10	27							27	
29	1	-	53	11	16							16	
30	1	-	62	11	5							5	
31	1	-	-	30	-							-	
Mean	23	14	39	44									
Min.	1	1	4	7									
Max.	112	38	91	140									
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												



OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1980		(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1		0.71	0.06	0.09	0.14	0.13	0.13	0.13			0.12	0.98	
2		0.64	0.06	0.31	0.14	0.13	0.13	0.13			0.12	0.90	
3		0.28	0.06	0.28	0.14	0.13	0.13	0.13			0.41	0.82	
4		0.07	0.06	0.35	0.14	0.13	0.13	0.13			0.23	0.77	
5		0.07	0.06	0.20	0.14	0.13	0.13	0.13			0.14	0.72	
6		0.23	0.08	0.10	0.49	0.16	0.13	0.13			0.14	0.68	
7		1.67	0.24	0.10	0.27	0.31	0.13	0.13			0.14	0.64	
8		0.66	0.46	0.30	0.15	0.45	0.13	0.13			0.14	0.60	
9		0.34	0.52	0.33	0.14	0.34	0.13	0.13			0.30	0.56	
10		0.47	0.23	0.24	0.14	0.26	0.13	0.13			0.09	0.54	
11		1.13	0.42	0.47	0.13	0.21	0.13	0.13			0.04	0.63	
12		0.61	0.22	0.17	0.13	0.19	0.13	0.13			0.04	0.98	
13		0.64	0.10	0.29	0.13	0.16	0.13	0.13			0.15	1.01	
14		0.67	0.06	0.20	0.13	0.15	0.13	0.13			0.08	1.04	
15		0.72	0.07	0.70	0.13	0.45	0.13	0.13			0.08	1.00	
16		1.08	0.07	1.25	0.13	0.13	0.13	0.13			0.21	0.06	
17	0.67	0.92	0.06	1.43	0.13	0.13	0.13	0.13			0.47	0.06	
18	0.64	0.24	1.23	1.15	0.13	0.13	0.13	0.13			0.06	0.06	
19	0.27	0.21	0.64	0.46	0.13	0.13	0.13	0.13			0.43	0.06	
20	0.06	0.17	0.22	0.70	0.13	0.13	0.13	0.13			0.37	0.06	
21	0.05	0.73	0.08	0.34	0.12	0.13	0.13	0.13			0.43	0.06	
22	0.04	1.02	0.06	0.13	0.12	0.13	0.13	0.13			0.23	0.06	
23	1.65	1.13	0.06	0.13	0.12	0.13	0.13	0.13			0.13	0.06	
24	0.90	1.12	0.06	0.55	0.12	0.13	0.13	0.13			0.22	0.06	
25	0.32	0.86	0.06	0.57	0.12	0.13	0.13	0.13			0.43	0.06	
26	0.47	0.33	0.06	0.30	0.12	0.13	0.13	0.13			0.62	0.06	
27	0.89	0.06	0.06	0.20	0.63	0.13	0.13	0.13			1.17	0.06	
28	0.61	0.04	0.06	0.50	0.21	0.13	0.13	0.13			1.17	0.47	
29	0.62	0.04	0.06	0.27	0.14	0.13	0.13	0.13			1.08	0.75	
30	0.67	-	0.06	0.31	0.14	0.13	0.13	0.13			1.04	0.38	
31	0.66	-	0.06	-	0.14	-	0.13	-			-	0.92	
Mean		0.60	0.18	0.41	0.17	0.18	0.13				0.34	0.49	
Min.		0.04	0.06	0.09	0.12	0.13	0.13				0.04	0.06	
Max.		1.67	1.23	1.43	0.63	0.45	0.13				1.17	1.08	
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1980		(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1		20.0	0.5	0.8	1.4	1.3	1.3	1.3			1.2	36.2	
2		16.5	0.5	4.7	1.4	1.3	1.3	1.3			1.2	30.9	
3		4.0	0.5	4.0	1.4	1.3	1.3	1.3			7.5	26.0	
4		0.6	0.5	5.7	1.4	1.3	1.3	1.3			2.9	23.2	
5		0.6	0.5	2.4	1.4	1.3	1.3	1.3			1.4	20.5	
6		2.9	0.7	0.9	10.3	1.7	1.3	1.3			1.4	18.4	
7		99.7	3.1	0.9	3.8	4.7	1.3	1.3			1.4	16.5	
8		17.5	9.2	4.5	1.6	8.8	1.3	1.3			1.4	14.7	
9		5.5	11.4	5.2	1.4	5.5	1.3	1.3			4.5	13.0	
10		9.5	2.9	3.1	1.4	3.5	1.3	1.3			0.8	12.2	
11		47.4	7.8	9.5	1.3	2.5	1.3	1.3			0.4	16.1	
12		15.1	2.7	1.9	1.3	2.2	1.3	1.3			0.4	36.9	
13		16.5	0.9	4.2	1.3	1.7	1.3	1.3			1.6	43.5	
14		18.0	0.5	2.4	1.3	1.6	1.3	1.3			0.7	40.5	
15		20.5	0.6	19.4	1.3	8.8	1.3	1.3			0.7	37.6	
16		43.5	0.6	57.3	1.3	1.3	1.3	1.3			2.5	0.5	
17	18.0	32.2	0.5	74.1	1.3	1.3	1.3	1.3			0.5	0.5	
18	16.5	3.1	55.6	49.0	1.3	1.3	1.3	1.3			0.5	0.5	
19	3.8	2.5	16.5	9.2	1.3	1.3	1.3	1.3			8.2	0.5	
20	0.5	1.9	2.7	19.4	1.3	1.3	1.3	1.3			6.3	0.5	
21	0.5	21.0	0.7	5.5	1.2	1.3	1.3	1.3			8.2	0.5	
22	0.4	39.1	0.5	1.3	1.2	1.3	1.3	1.3			2.9	0.5	
23	97.4	47.4	0.5	1.3	1.2	1.3	1.3	1.3			1.3	0.5	
24	30.9	46.6	0.5	12.6	1.2	1.3	1.3	1.3			2.7	0.5	
25	5.0	28.4	0.5	13.4	1.2	1.3	1.3	1.3			8.2	0.5	
26	9.5	5.2	0.5	4.5	1.2	1.3	1.3	1.3			15.6	0.5	
27	30.3	0.5	0.5	2.4	16.1	1.3	1.3	1.3			50.6	9.5	
28	15.1	0.4	0.5	10.6	2.5	1.3	1.3	1.3			43.5	22.1	
29	15.6	0.4	0.5	3.8	1.4	1.3	1.3	1.3			40.5	6.6	
30	18.0	-	0.5	4.7	1.4	1.3	1.3	1.3			-	32.2	
31	17.5	-	0.5	-	1.4	-	1.3	-			-	9.3	
Mean		20.2	4.0	11.3	2.2	2.2	1.3				9.3	14.9	
Min.		0.4	0.5	0.8	1.2	1.3	1.3				0.4	0.5	
Max.		99.7	55.6	74.1	16.1	8.8	1.3				50.6	43.5	
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1981		(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	0.51	1.35	0.48	1.28	0.64							0.27	
2	0.09	0.76	0.59	0.75	0.56							0.44	
3	0.04	0.83	0.57	0.41	0.18				0.38			0.10	
4	0.04	1.02	0.23	0.18	0.26				0.26			0.98	
5	0.08	1.23	0.43	0.12	0.18				0.03			0.75	
6	0.59	0.88	0.75	0.12	0.18				0.03			0.27	
7	0.09	0.30	0.56	0.12	0.18				0.03			0.14	
8	0.62	0.23	0.24	0.12	0.18				0.03			0.14	
9	0.57	0.56	0.11	0.12	0.18				0.03			0.13	
10	0.26	0.05	0.11	0.12	0.18				0.03			0.14	
11	0.12	0.05	0.31	0.12	0.18				0.03			0.14	
12	0.10	0.05	0.33	0.12	0.18				0.03			0.14	
13	0.10	0.05	0.16	0.12	0.18						0.21	0.14	
14	0.43	0.05	0.12	0.12	0.58		0.55				0.37	0.14	
15	0.17	0.74	1.31	0.12	0.18		0.44				0.13	0.14	
16	0.35	0.17	0.79	0.12	0.18		0.36				0.02	0.14	
17	0.85	0.50	0.42	0.12	0.22		0.21				0.02	0.14	
18	0.39	0.99	0.22	0.17	0.48						0.02	0.14	
19	0.84	0.77	0.14	0.50	0.84						0.02	0.14	
20	1.01	0.36	0.24	0.14	0.20						0.02	0.14	
21	0.96	0.14	0.12	0.12	0.20						0.02	0.14	
22	0.83	0.87	0.20	0.12	0.20						0.02	0.14	
23	0.68	1.03	0.12	0.12	0.20						0.02	0.14	
24	0.52	0.87	0.13	0.19	0.20						0.02	0.14	
25	0.38	0.38	0.14	0.12	0.20						0.02	0.14	
26	0.48	0.11	0.54	0.12	0.20						0.02	0.14	
27	0.74	0.38	0.48	0.12	0.20						0.30	0.14	
28	1.34	0.69	1.05	0.12	0.20						0.04	0.14	
29	1.05	-	0.73	0.12	0.20						0.54	0.14	
30	1.42	-	1.12	0.12	0.20						0.88	0.14	
31	1.09	-	0.63	-	0.20						-	0.14	
Mean	0.54	0.55	0.43	0.21	0.26							0.20	
Min.	0.04	0.05	0.11	0.12	0.18							0.10	
Max.	1.42	1.35	1.31	1.28	0.84							0.98	
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1981		(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	11.0	66.4	9.9	60.0	16.5							3.8	
2	0.8	22.6	14.3	22.1	13.0							8.5	
3	0.4	26.6	13.4	7.5	2.0					6.6		0.9	
4	0.4	39.1	2.9	2.0	3.5					3.5		36.2	
5	0.7	55.6	8.2	1.2	2.0					0.3		22.1	
6	14.3	29.6	22.1	1.2	2.0					0.3		3.8	
7	0.8	4.5	13.0	1.2	2.0					0.3		1.4	
8	15.6	2.9	3.1	1.2	2.0					0.3		1.4	
9	13.4	13.0	1.0	1.2	2.0					0.3		1.3	
10	3.5	0.5	1.0	1.2	2.0					0.3		1.4	
11	1.2	0.5	4.7	1.2	2.0					0.3		1.4	
12	0.9	0.5	5.2	1.2	2.0					0.3		1.4	
13	0.9	0.5	1.7	1.2	2.0					0.3		1.4	
14	8.2	0.5	1.2	1.2	13.8		12.6				2.5	1.4	
15	1.9	21.5	62.7	1.2	2.0		8.5				6.3	1.4	
16	5.7	1.9	24.3	1.2	2.0		6.0				1.3	1.4	
17	27.8	10.6	7.8	1.2	2.7		2.5				0.3	1.4	
18	6.9	36.9	2.7	1.9	9.9						0.3	1.4	
19	27.2	23.2	1.4	10.6	27.2						0.3	1.4	
20	38.3	6.0	3.1	1.4	2.4						0.3	1.4	
21	34.9	1.4	1.2	1.2	2.4						0.3	1.4	
22	26.6	29.0	2.4	1.2	2.4						0.3	1.4	
23	18.4	39.8	1.2	1.2	2.4						0.3	1.4	
24	11.4	29.0	1.3	2.2	2.4						0.3	1.4	
25	6.6	6.6	1.4	1.2	2.4						0.3	1.4	
26	9.9	1.0	12.2	1.2	2.4						0.3	1.4	
27	21.5	6.6	9.9	1.2	2.4						4.5	1.4	
28	65.4	18.9	41.2	1.2	2.4						0.4	1.4	
29	41.2	-	21.0	1.2	2.4						12.2	1.4	
30	73.1	-	46.6	1.2	2.4						29.6	1.4	
31	44.2	-	16.1	-	2.4						-	1.4	
Mean	17.2	17.7	11.5	4.4	4.5							3.6	
Min.	0.4	0.5	1.0	1.2	2.0							0.9	
Max.	73.1	66.4	62.7	60.0	27.2							36.2	
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1982		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	0.14	0.12	0.26	1.02									
2	0.33	0.12											
3	0.25	0.12											
4	0.14	0.12		0.30									
5	0.44	0.12		0.19									
6	0.54	0.67		0.33									
7	0.20	0.89		0.24									
8	0.27	0.70											
9	0.18	0.44	1.13										
10	0.18	0.28	1.13										
11	0.16	0.18	0.56										
12	0.84	0.18	0.55	0.22									
13	0.74	0.66	0.57	0.12									
14	0.79	0.46		0.62									
15	0.30	0.18	0.15										
16	0.24	0.18										1.30	
17	0.74	0.18										0.60	
18	0.27	0.07										0.33	
19	0.27											0.27	
20	0.27		0.57									0.12	
21	0.27	0.21	0.21									0.12	
22	0.26	0.09										0.12	
23	0.30											0.12	
24	0.70	0.18										0.27	
25	0.31	0.66										0.15	
26	0.26	1.23										0.15	
27	0.09	0.42										0.72	
28	0.09	0.17										1.25	
29	0.09	-										0.75	
30	0.09	-										-0.10	
31	0.24	-										-0.10	
Mean	0.32												
Min.	0.09												
Max.	0.84												
Annual Mean :	(m)												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1982		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	1	1	4	39									
2	5	1											
3	3	1											
4	1	1		4									
5	8	1		2									
6	12	18		5									
7	2	30		3									
8	4	19											
9	2	8	47										
10	2	4	47										
11	2	2	13										
12	27	2	13	3									
13	22	17	13	1									
14	24	9		16									
15	4	2	2									62	
16	3	2										15	
17	22	2										5	
18	4	1										4	
19	4											4	
20	4		13									1	
21	4	3	3									1	
22	4	1										1	
23	4											1	
24	19	2										4	
25	5	17										2	
26	4	56										2	
27	1	8										20	
28	1	2										57	
29	1	-										22	
30	1	-										0	
31	7	-										0	
Mean	3												
Min.	1												
Max.	27												
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1983		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	0.08	0.41	0.08	0.05	-0.18	-0.15					-0.25	-0.47	
2	0.08	0.40	0.08	0.05	0.38	-0.17					-0.20	-0.22	
3	0.08	0.29	0.08	0.05	1.38	-0.18					-0.20	-0.25	
4	0.16	0.28	0.08	0.05	0.76	-0.21			0.50		-0.15	-0.31	
5	0.11	0.07	0.08	0.05	0.57	-0.24			-0.10		-0.15	-0.18	
6	1.09	0.07	0.07	0.05	0.07	-0.26			-0.52		-0.15	-0.10	
7	1.49	0.07	0.06	0.05	1.16	-0.39			-0.32		-0.23	-0.10	
8	0.76	0.21	0.06	0.05	0.93	-0.32			-0.22		-0.35	-0.10	
9	0.62	0.47	0.24	0.05	0.96	-0.25			-0.14		-0.38	-0.39	
10	0.10	0.09	0.14	0.05	1.07	-0.21			-0.13		-0.19	-0.25	
11	0.13	0.07	0.09	0.05	0.68	-0.20			-0.13		-0.29	-0.17	
12	0.21	0.07	0.08	0.05	0.12	-0.13			-0.12		-0.34	-0.15	
13	0.28	0.22	0.08	0.21	0.82	-0.12			-0.16		-0.37	-0.15	
14	0.15	0.28	0.08	0.12	0.68	-0.10			-0.25		-0.41	-0.41	
15	0.15	0.12	0.04	0.05	0.56	-0.08			-0.10		-0.50	-0.22	
16	0.18	0.07	-0.25	0.05	0.48	-0.05			-0.10		-0.48	-0.19	
17	0.16	0.28	-0.16	0.05	0.38	-0.04			0.09		-0.62	-0.24	
18	0.18	0.47	0.04	-0.23	0.29	-0.02			-0.12		-0.53	-0.33	
19	0.26	0.22	0.06	-0.17	0.21	-0.02			-0.34		-0.42	-0.28	
20	0.73	0.07	0.06	-0.18	0.13	-0.02			-0.44		-0.31	-0.15	
21	0.46	0.22	0.17	-0.16	0.08	-0.02			-0.22		-0.26	-0.10	
22	0.14	0.30	0.10	-0.11	0.08	-0.02			-0.15		-0.15	-0.10	
23	0.14	0.26	0.06	-0.08	0.08				-0.15		-0.15	-0.53	
24	0.14	0.05	0.06	-0.05	0.08				-0.18		-0.13	-0.45	
25	0.14	0.19	0.06	-0.05	0.08				-0.14		-0.10	-0.33	
26	0.14	0.23	0.08	-0.05	0.05				-0.09		-0.09	-0.35	
27	0.14	0.11	0.12	-0.12	-0.53				-0.07		-0.06	-0.42	
28	0.14	0.54	0.13	-0.08	-0.31				-0.05		-0.06	-0.52	
29	0.14	-	0.15	-0.25	-0.21				-0.05		-0.06	-0.50	
30	0.14	-	0.08	-0.16	-0.18				-0.05		-0.06	-0.50	
31	0.14	-	0.08	-	-0.15				-0.05		-	-0.53	
Mean	0.29	0.22	0.07	-0.02	0.34						-0.26	-0.29	
Min.	0.08	0.05	-0.25	-0.25	-0.53						-0.62	-0.53	
Max.	1.49	0.54	0.24	0.21	1.38						-0.06	-0.10	
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1983		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	29	48	29	28	18	19					15	9	
2	29	47	29	28	46	18					15	17	
3	29	41	29	28	128	18					17	15	
4	34	40	29	28	72	17				54	19	13	
5	31	29	29	28	59	16				21	19	18	
6	100	29	29	28	29	15				7	19	21	
7	140	29	28	28	107	11				13	16	21	
8	72	36	28	28	86	13				17	12	21	
9	62	52	38	28	89	15				20	11	11	
10	30	30	32	28	98	17				20	18	15	
11	32	29	30	28	66	17				20	14	18	
12	36	29	29	28	31	20				20	12	19	
13	40	37	29	36	77	20				19	11	19	
14	33	40	29	31	66	21				15	10	10	
15	33	31	28	28	58	22				21	8	17	
16	35	29	15	28	52	23				21	8	18	
17	34	40	19	28	46	24				30	5	16	
18	35	52	28	16	41	25				20	7	13	
19	39	37	28	18	36	25				12	10	14	
20	70	29	28	18	32	25				9	13	19	
21	51	37	34	19	29	25				17	15	21	
22	32	41	30	21	29	25				19	19	21	
23	32	39	28	22	29	25				19	19	7	
24	32	28	28	23	29					18	20	9	
25	32	35	28	23	29					20	21	13	
26	32	37	29	23	28					22	22	12	
27	32	31	31	20	7					23	23	10	
28	32	56	32	22	13					23	23	7	
29	32	-	33	15	17					23	23	8	
30	32	-	29	19	18					23	23	8	
31	32	-	29	-	19					23	-	7	
Mean	43	37	29	25	48						16	14	
Min.	29	28	15	15	7						5	7	
Max.	140	56	38	36	128						23	21	
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-0.46	1.97	2.03	1.41	1.30	1.24	1.16	1.09	1.08	1.17		1.45
2	-0.39	1.85	1.68	1.28	1.33	1.22	1.15	1.09	1.07	1.17		1.43
3	0.49	2.33	1.47	1.31	1.27	1.23	1.15	1.08	1.07	1.18		1.55
4	0.38	1.84	1.33	1.22	1.25	1.20	1.14	1.08	1.06	1.16		1.36
5	1.04	1.62	1.42	1.28	1.25	1.20	1.14	1.08	1.06	1.15		1.41
6	0.33	1.61	1.38	1.33	1.29	1.18	1.14	1.08	1.11	1.15		1.63
7	1.00	1.45	1.51	1.54	1.29	1.19	1.14	1.07	1.20	1.40		1.52
8	0.36	1.35	1.39	1.61	1.27	1.18	1.13	1.07	1.13	1.25		1.45
9	-0.53	1.25	1.41	2.08	1.25	1.18	1.13	1.07	1.33	1.20		1.50
10	0.57	1.38	1.63	1.98	1.24	1.19	1.13	1.07	1.24	1.19		1.78
11	0.71	1.53	1.33	2.09	1.24	1.18	1.12	1.07	1.23	1.17		1.75
12	1.31	1.61	1.64	1.64	1.23	1.17	1.12	1.07	1.18	1.19		1.46
13	0.64	1.40	1.65	1.41	1.47	1.17	1.12	1.07	1.56	1.27		1.62
14	0.42	1.33	1.44	1.32	1.85	1.17	1.11	1.07	1.33	1.23		1.44
15	0.05	1.34	2.00	1.29	1.41	1.17	1.11	1.07	1.98	1.37		1.63
16	1.73	1.05	1.59	1.24	1.75	1.17	1.10	1.07	1.24	1.29		1.66
17	1.53	1.41	1.33	1.55	1.50	1.16	1.10	1.07	1.23	1.35		1.46
18	1.37	1.31	1.25	1.46	1.50	1.16	1.10	1.07	1.28	1.22		1.38
19	1.34	1.37	1.34	1.27	1.35	1.16	1.11	1.07	1.24	1.20		1.32
20	1.33	1.27	1.25	1.38	1.34	1.15	1.10	1.07	1.24	1.18		1.30
21	1.33	1.52	1.46	1.24	1.33	1.16	1.10	1.07	1.20	1.18		1.28
22	1.27	1.65	1.39	1.22	1.31	1.15	1.10	1.08	1.17	1.17		1.25
23	1.25	1.57	1.32	1.21	1.28	1.16	1.10	1.07	1.15	1.15		1.25
24	1.36	1.39	1.26	1.22	1.27	1.15	1.10	1.07	1.16	1.15		1.54
25	1.81	1.33	1.22	1.48	1.25	1.14	1.10	1.13	1.17	1.15		1.61
26	1.49	1.31	1.22	1.35	1.25	1.15	1.10	1.10	1.17	1.15		1.39
27	1.63	1.27	1.37	1.46	1.25	1.15	1.09	1.10	1.30	1.15		1.30
28	1.69	1.36	1.33	1.36	1.24	1.14	1.09	1.09	1.29	1.14		1.34
29	1.89	1.35	1.20	1.25	1.24	1.15	1.09	1.08	1.23	1.14		1.97
30	1.60	-	1.27	1.27	1.23	1.24	1.09	1.07	1.18	1.13		1.54
31	0.97	-	1.25	-	1.23	-	1.09	1.07	-	1.13		1.37
Mean	0.97	1.49	1.43	1.43	1.33	1.18	1.11	1.08	1.23	1.20		1.48
Min.	-0.53	1.05	1.20	1.21	1.23	1.14	1.09	1.07	1.06	1.13		1.25
Max.	1.89	2.33	2.03	2.09	1.85	1.24	1.16	1.13	1.98	1.40		1.97
Annual Mean :	(m)											
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Mean :	(10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	9	196	204	131	120	114	107	100	99	108		136
2	11	181	161	118	123	112	106	100	98	109		133
3	53	244	138	121	117	113	106	99	98	108		146
4	46	180	123	112	115	110	105	99	97	107		126
5	96	154	132	118	115	110	105	99	97	106		131
6	43	153	128	123	119	109	105	99	102	106		155
7	92	136	142	145	119	109	105	98	110	130		143
8	45	125	129	153	117	109	104	98	104	115		136
9	7	115	131	210	115	109	104	98	123	110		141
10	59	128	155	197	114	109	104	98	114	109		173
11	69	144	123	212	114	109	103	98	113	108		169
12	121	153	156	156	113	108	103	98	109	109		137
13	63	130	157	131	138	108	103	98	147	117		154
14	49	123	134	122	181	108	102	98	123	113		134
15	28	124	200	119	131	108	102	98	197	127		155
16	167	97	151	114	169	108	101	98	114	119		159
17	144	131	123	146	141	107	101	98	113	125		137
18	127	121	115	137	141	107	101	98	118	112		128
19	124	127	124	117	125	107	102	98	114	110		122
20	123	117	115	128	124	106	101	98	114	109		120
21	123	143	137	114	123	107	101	98	110	109		118
22	117	157	129	112	121	106	101	99	108	108		115
23	115	149	122	111	118	107	101	98	106	106		115
24	126	129	116	112	117	106	101	98	107	106		145
25	176	123	112	139	115	105	101	104	108	106		153
26	140	121	112	125	115	106	101	101	108	106		129
27	155	117	127	137	115	106	100	101	120	106		120
28	162	126	123	126	114	105	100	100	119	105		124
29	186	125	110	115	114	106	100	99	113	105		196
30	152	-	117	117	113	114	100	98	109	104		145
31	149	-	115	-	113	-	100	98	-	104		127
Mean	99	141	134	134	124	108	102	99	114	110		139
Min.	7	97	110	111	113	105	100	98	97	104		115
Max.	186	244	204	212	181	114	107	104	197	130		196
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Mean :	(10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1985		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	-0.20	-0.20	-0.63	-0.42	-0.40	-0.60	-0.25	-0.25	-0.22		-0.25	-0.25	
2	-0.15	-0.71	-0.68	-0.30	-0.37	-0.73	-0.25	-0.25	-0.10		-0.25	-0.32	
3	-0.20	-0.56	0.35	-0.25	-0.32	-0.77	-0.15	-0.20	-0.05		-0.25	-0.53	
4	-0.15	-0.33	0.54	-0.25	-0.30	-0.72	-0.25	-0.20	-0.05		-0.25	-0.40	
5	-0.10	0.91	1.56	-0.25	-0.25	-0.62	-0.25	-0.20	-0.05		-0.10	0.21	
6	-0.32	0.50	2.51	-0.45	-0.25	-0.52	-0.25	-0.20			-0.10	0.56	
7	-0.35	0.50	2.26	-0.33	-0.25	-0.47	-0.25	-0.15			-0.40	0.52	
8	-0.41	0.50	2.49	-0.30	-0.25	-0.45	-0.20	-0.15			-0.28	0.44	
9	0.43	0.93	2.63	-0.30	-0.20	-0.45	-0.15	-0.15			-0.25	0.32	
10	-0.65	0.50	1.69	-0.25	-0.20	-0.40	-0.15	-0.15			-0.25	0.09	
11	-0.58	0.50	1.06	-0.25	-0.20	-0.30	-0.15	-0.15			-0.25	-0.63	
12	-0.25	0.65	0.76	-0.25	-0.15	-0.27	-0.15	-0.10			-0.22	-0.33	
13	0.26	0.52	0.70	-0.55	-0.15	-0.20	-0.15	-0.10			-0.15	-0.10	
14	-0.06	1.00	0.68	-0.40	-0.15	-0.20	-0.10	-0.10			-0.10	-0.05	
15	-0.68	0.54	0.58	-0.32	-0.15	-0.20	-0.10	-0.05			-0.10	-0.05	
16	-0.75	-0.68	0.43	-0.25	-0.15	-0.20	-0.10	-0.05			-0.05	-0.05	
17	-0.55	-0.38	0.23	-0.25	-0.15	-0.20	-0.10	-0.05			-0.05	-0.05	
18	-0.50	-0.33	-0.75	-0.20	-0.40	-0.20	-0.10	-0.05			-0.05	-0.05	
19	0.17	-0.25	-0.75	-0.20	-0.33	-0.25	-0.10	-0.05					
20	0.33	-0.32	-0.63	-0.20	-0.20	-0.77	-0.05	-0.05					
21	0.21	-0.32	-0.52	0.20	-0.15	-0.55	-0.05	-0.05					
22	-0.73	0.81	-0.37	-0.20	-0.10	-0.45	-0.05				-0.25	-0.32	
23	-0.50	1.06	-0.35	-0.20	-0.10	-0.38					-0.44	-0.17	
24	-0.33	1.36	-0.33	-0.20	-0.10	-0.45					-0.67	-0.15	
25	0.43	0.83	-0.38	-0.20	-0.10	-0.62					-0.53	-0.15	
26	0.46	0.34	-0.25	-0.20	-0.10	-0.48					-0.47	-0.08	
27	0.54	-0.50	-0.25	-0.20	-0.10	-0.30	-0.40				-0.25	-0.63	
28	0.55	-0.40	-0.38	-0.20	-0.20	-0.25	-0.42				-0.25	-0.40	
29	0.70	-	-0.45	-0.20	-0.45	-0.25	-0.52				-0.42	-0.20	
30	0.40	-	-0.65	-0.20	-0.65	-0.25	-0.60	-0.67			-0.30	-0.63	
31	0.46	-	-0.52	-	-0.68	-	-0.55	-0.32			-	-	
Mean	-0.08	0.23	0.34	-0.25	-0.24	-0.42							
Min.	-0.75	-0.71	-0.75	-0.55	-0.68	-0.77							
Max.	0.70	1.36	2.63	0.20	-0.10	-0.20							
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1985		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	28	28	9	17	18	10	25	25	27		25	25	
2	31	7	8	23	19	6	31	25	34		25	22	
3	28	11	68	25	22	5	31	28	37		25	13	
4	31	21	86	25	23	6	25	28	37		25	18	
5	34	126	216	25	25	9	25	28	37		34	56	
6	22	82	391	16	25	13	25	28			34	88	
7	20	82	340	21	25	15	25	31			18	84	
8	18	82	386	23	25	16	28	31			24	76	
9	75	128	416	23	28	16	31	31			25	65	
10	8	82	237	25	28	18	31	31			25	47	
11	11	82	145	25	28	23	31	31			25	9	
12	25	97	109	25	31	24	31	34			27	21	
13	60	84	102	12	31	28	31	34			31	34	
14	37	137	100	18	31	28	34	34			34	37	
15	8	86	90	22	31	28	34	37			34	37	
16	6	8	75	25	31	28	34	37			37	37	
17	12	19	58	25	31	28	34	37			37	37	
18	14	21	6	28	18	28	34	37			37	37	
19	53	25	6	28	21	25	34	37			25	22	
20	66	22	9	28	28	5	37	37			25	22	
21	56	22	13	55	31	12	37	37			16	30	
22	6	114	19	28	34	16	37				8	31	
23	14	145	20	28	34	19					13	31	
24	21	186	21	28	34	16					15	35	
25	75	117	19	28	34	9					25	37	
26	78	67	25	28	34	15					25	9	
27	86	14	25	28	34	23	18				25	18	
28	87	18	19	28	28	25	17				25	28	
29	102	-	16	28	16	25	13				17	28	
30	72	-	8	28	8	25	10	8			23	9	
31	78	-	13	-	8	-	12	22			24	-	
Mean	41	68	99	26	26	18							
Min.	6	7	6	12	8	5							
Max.	102	186	416	55	34	28							
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1986		(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	-0.52	-0.52	-0.72	0.78	-0.25	-0.48	-0.48					-0.25	
2	-0.32	-0.32	-0.65	0.78	-0.25	-0.47	-0.47					-0.20	
3	-0.30	-0.62	-0.52	0.78	-0.25	-0.45	-0.45					-0.20	
4	-0.55	-0.68	-0.48	0.76	-0.27	-0.38	-0.38					-0.20	
5	-0.55	-0.57	-0.55	0.71	-0.25	0.35	0.35					-0.30	
6	-0.67	0.08	-0.70	0.65	-0.23	-0.25	-0.25					-0.25	
7	0.57	0.20	0.04	0.60	-0.20	-0.17	-0.17					0.23	
8	0.47	0.33	0.12	0.55	-0.12	-0.15	-0.15					0.23	
9	0.24	0.36	0.20	0.49	-0.10	-0.20	-0.35					0.16	
10	0.06	0.25	0.22	0.43	-0.10	-0.15	-0.35					0.15	
11	-0.72	0.15	0.31	0.42	-0.05	-0.30	-0.32					0.17	
12	-0.60	0.15	0.32	0.48	-0.05	-0.70	-0.34					0.30	
13	-0.55	0.27	0.33	0.37	-0.05	-0.55	-0.15					0.17	
14	-0.55	0.37	0.33	0.30	-0.05	-0.43	-0.15					0.14	
15	-0.58	0.43	0.35	0.17		-0.30	-0.10					-0.05	
16	-0.33	0.53	0.44	0.06		-0.23	-0.05					0.14	
17	-0.20	0.61	0.54	-0.23		-0.25	-0.05					0.19	
18	-0.15	0.57	0.69	-0.64		-0.20	-0.05					0.08	
19	-0.15	0.36	0.72	-0.54		-0.32	-0.05					0.08	
20	-0.28	0.37	0.61	-0.48		-0.50	-0.38					0.08	
21	-0.57	0.42	0.63	-0.43		-0.53	-0.38					0.07	
22	-0.52	0.49	0.56	-0.38		-0.62	-0.53					-0.67	
23	-0.73	0.41	0.53	-0.42		-0.62	-0.62					-0.40	
24	-0.73	0.30	0.54	-0.37		-0.55	-0.55					-0.28	
25	-0.75	0.27	1.20	-0.33		-0.70	-0.70					-0.30	
26	1.13	0.15	1.58	-0.30		-0.55	-0.55					-0.25	
27	0.92	0.07	0.99	-0.30		-0.42	-0.42					-0.25	
28	0.73	-0.70	0.97	-0.27		-0.30	-0.30					-0.25	
29	0.52	-	0.76	-0.25		-0.25	-0.25					-0.25	
30	0.29	-	0.78	-0.25		-0.43	-0.43					-0.25	
31	-0.31	-	0.85	-		-	-					-0.67	
Mean	-0.18	0.13	0.35	0.10		-	-					-0.25	
Min.	-0.75	-0.70	-0.72	-0.64		-	-					-0.70	
Max.	1.13	0.61	1.58	0.78								-0.05	

Annual Mean : (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1986		(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	13	13	6	111	25	15	15					25	
2	22	22	8	111	25	15	15					28	
3	23	9	13	111	25	16	16					28	
4	12	8	15	109	24	19	19					28	
5	12	11	12	103	25	68	68					23	
6	8	46	7	97	26	25	25					60	
7	89	55	43	92	28	30	30					58	
8	79	66	49	87	33	31	31					58	
9	59	69	55	81	34	28	20					52	
10	45	59	57	75	34	31	20					51	
11	6	51	64	74	37	23	22					53	
12	10	51	65	80	37	7	21					64	
13	12	61	66	70	37	12	31					32	
14	12	70	66	64	37	17	31					37	
15	11	75	68	53	37	23	34					37	
16	21	85	76	45	26	26	37					37	
17	28	93	86	26	25	25	37					51	
18	31	89	101	9	28	28	37					55	
19	31	69	104	12	22	22	37					46	
20	24	70	93	15	14	14	46					46	
21	11	74	95	17	19	19	46					46	
22	13	81	88	19	13	13	8					32	
23	6	73	85	17	9	9	18					34	
24	6	64	86	19	12	12	24					34	
25	6	61	163	21	7	7	23					34	
26	154	51	219	23	12	12	25					22	
27	127	46	136	23	17	17	22					22	
28	105	7	133	24	23	23	25					13	
29	84	-	109	25	25	25	25					13	
30	63	-	111	25	17	17	25					7	
31	22	-	119	-	-	-	-					8	
Mean	37	55	77	55								27	
Min.	6	7	6	9								7	
Max.	154	93	219	111								37	

Annual Total : (10<sup>6</sup> m<sup>3</sup>)

Annual Mean : (m<sup>3</sup>/sec)

**OBSERVED DAILY WATER LEVEL AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1987		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
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20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
Mean													
Min.													
Max.													
Annual Mean :	(m)												

**OBSERVED DAILY DISCHARGE AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1987		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1													
2													
3													
4													
5													
6													
7													
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25													
26													
27													
28													
29													
30													
31													
Mean													
Min.													
Max.													
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available



**OBSERVED DAILY WATER LEVEL AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
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23												
24												
25												
26												
27												
28												
29												
30		-										
31		-										
Mean												
Min.												
Max.												
Annual Mean :	(m)											

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
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27												
28												
29												
30												
31												
Mean												
Min.												
Max.												
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)												
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-0.68	-0.41	-0.17	-0.96	-0.87	-0.81	-0.85	-0.85					
2	-0.58	-0.51	-0.41	-0.96	-0.90	-0.86	-0.85	-0.85					
3	-0.08	-0.58	-0.48	-0.82	-0.90	-0.67	-0.85	-0.85					
4	0.72	-0.62	-0.53	-0.89	-0.90	-0.87	-0.85	-0.85					
5	0.35	-0.69	-0.38	-0.94	-0.90	-0.92	-0.72	-0.89					
6	0.15	-0.05	-0.47	-0.94	-0.82	-0.92	-0.61	-0.93					
7	-0.06	0.62	-0.62	-0.79	-0.90	-0.92	-0.71	-0.84					
8	-0.42	0.05	-0.71	-0.91	-0.90	-0.92	-0.51	-0.85					
9	-0.58	-0.47	-0.71	-0.94	-0.79	-0.92	-0.39	-0.86					
10	-0.48	-0.64	-0.49	-0.96	-0.56	-0.92	-0.32	-0.92					
11	-0.67	0.38	-0.66	-0.96	-0.73	0.17	-0.55	-0.94					
12	-0.93	1.10	-0.77	-0.96	-0.86	0.70	-0.83	-0.97					-0.75
13	-0.85	1.43	-0.68	-0.96	-0.90	1.13	-0.27	-0.99					-0.27
14	-0.81	1.21	-0.45	-0.96	-0.90	0.54	-0.26						-0.15
15	-0.68	1.06	-0.58	-0.96	-0.90	0.29	-0.22						-0.15
16	-0.60	0.96	-0.72	-0.78	-0.90	0.12	-0.19						-0.06
17	-0.76	0.95	-0.86	-0.95	-0.70	0.01	-0.11						-0.06
18	-0.92	0.15	-0.63	-0.96	-0.86	-0.38	-0.03						-0.04
19	-0.85	0.21	-0.22	-0.96	-0.79	-0.60	-0.45						-0.04
20	-0.83	-0.33	-0.41	-0.96	-0.52	-0.78	0.20						
21	-0.60	-0.50	-0.54	-0.96	-0.43	-0.92	0.17						
22	-0.66	-0.50	-0.65	-0.96	-0.60	-0.92	-0.24						
23	-0.21	0.44	-0.82	-0.79	-0.56	-0.92	-0.53						
24	0.35	-0.19	-0.78	-0.94	-0.76	-0.92	-0.82						-0.74
25		0.02	-0.59	-0.96	-0.46	-0.92	-0.85						-0.27
26	-0.34	0.36	-0.79	-0.73	-0.55	-0.92	-0.85						-0.15
27	-0.59	0.33	-0.90	-0.92	-0.18	-0.92	-0.85						-0.18
28	-0.75	1.13	-0.49	-0.61	0.11	-0.92	-0.85						-0.59
29	-0.52	-	-0.67	-0.55	-0.33	-0.92	-0.85						-0.34
30	-0.69	-	-0.88	-0.79	-0.46	-0.92	-0.85						-0.67
31	-0.41	-	-0.92	-	-0.71	-	-0.85						-0.49
Mean		0.18	-0.61	-0.89	-0.69	-0.56	-0.54						-0.44
Min.		-0.69	-0.92	-0.96	-0.90	-0.92	-0.85						
Max.		1.43	-0.17	-0.55	0.11	1.13	0.20						
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)												
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8	18	30	2	3	4	3	3	3				
2	11	13	18	2	2	3	3	3	3				
3	35	11	15	4	2	8	3	3	3				
4	104	9	13	3	2	3	3	3	3				
5	68	7	19	2	2	2	6	3	3				
6	51	37	15	2	4	2	10	2	2				
7	37	94	9	5	2	2	7	4	4				
8	17	44	7	2	2	2	13	3	3				
9	11	15	7	2	5	2	18	3	3				
10	15	9	14	2	11	2	22	2	2				
11	8	71	8	2	6	53	12	2	2				
12	2	150	5	2	3	102	4	1	1				6
13	3	196	8	2	2	154	24	1	1				24
14	4	165	16	2	2	86	25	31	31				31
15	8	145	11	2	2	63	27	31	31				31
16	10	132	6	5	2	49	29	37	37				37
17	5	131	3	2	7	41	33	37	37				37
18	2	51	9	2	3	19	39	38	38				38
19	3	56	27	2	5	10	16	38	38				38
20	4	21	18	2	13	5	55	38	38				38
21	10	14	12	2	17	2	53	38	38				38
22	8	14	8	2	10	2	26	38	38				38
23	28	76	4	5	11	2	13	38	38				38
24	68	29	5	2	5	2	4	38	38				38
25		42	10	2	15	2	3	38	38				38
26	21	69	5	6	12	2	3	38	38				38
27	10	66	2	2	29	2	3	38	38				38
28	6	154	14	10	48	2	3	38	38				38
29	13	-	8	12	21	2	3	38	38				38
30	7	-	3	5	15	2	3	38	38				38
31	18	-	2	-	7	-	3	38	38				38
Mean		66	11	3	9	21	15						
Min.		7	2	2	2	2	3						
Max.		196	30	12	48	154	55						
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )												
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-0.54	-0.80	0.35	-0.82	-0.55	-0.78	-0.85						
2	0.29	-0.80	-0.16	-0.82	-0.44	-0.78	-0.85						
3	-0.54	-0.80	-0.09	-0.70	-0.53	-0.78	-0.85						
4	-0.25	-0.77	-0.14	-0.55	-0.65	-0.67	-0.85						
5	-0.36	-0.71	-0.27	-0.47	-0.73	-0.66	-0.90						
6	-0.68	-0.77	-0.13	-0.70	-0.78	-0.62	-0.90						
7	-0.49	-0.87	-0.20	-0.76	-0.78	-0.79	-0.90						
8	-0.77	-0.87	-0.16	-0.82	-0.78	-0.82	-0.90						
9	-0.80	-0.87	-0.43	-0.82	-0.78	-0.84							
10	-0.53	-0.87	-0.70	-0.82	-0.78	-0.78							
11	-0.52	-0.87	-0.72	-0.45	-0.78	-0.85							
12	-0.77	-0.84	-0.72	-0.45	-0.78	-0.82							
13	-0.80	-0.72	-0.46	-0.55	-0.78	-0.85							
14	-0.08	-0.74	-0.57	-0.30	-0.54	-0.85							
15	0.49	-0.60	-0.78	0.24	-0.59	-0.85							
16	-0.22	-0.66	-0.82	-0.15	-0.47	-0.85							
17	-0.24	-0.66	-0.82	0.46	-0.69	-0.85							
18	-0.49	-0.67	-0.82	0.44	-0.71	-0.85							
19	-0.76	-0.68	-0.82	-0.43	-0.43	-0.85							
20	0.85	-0.55	-0.43	-0.33	-0.48	-0.85							
21	-0.19	0.29	-0.58	-0.41	-0.32	-0.85							
22	-0.43	-0.55	-0.60	-0.58	-0.29	-0.85							
23	0.07	-0.28	-0.45	-0.61	-0.27	-0.85							
24	0.52	-0.31	-0.28	-0.45	-0.28	-0.36							
25	-0.33	-0.63	-0.28	-0.26	-0.44	-0.56							
26	0.49	-0.68	-0.13	-0.21	-0.65	-0.76							
27	-0.34	-0.17	-0.23	-0.45	-0.73	-0.82							
28	-0.37	-0.35	-0.22	-0.05	-0.78	-0.85							
29	-0.65	-	-0.37	-0.28	-0.78	-0.85							
30	-0.75	-	-0.69	-0.45	-0.78	-0.85							
31	-0.80	-	-0.83	-	-0.78	-							
Mean	-0.32	-0.64	-0.44		-0.62	-0.79							
Min.	-0.80	-0.87	-0.83		-0.78	-0.85							
Max.	0.85	0.29	0.35		-0.27	-0.36							
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )												
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	12	4	68	4	12	5	3						
2	63	4	30	4	16	5	3						
3	12	4	35	7	13	5	3						
4	25	5	32	12	8	8	3						
5	20	7	24	15	6	8	2						
6	8	5	32	7	5	9	2						
7	14	3	28	5	5	5	2						
8	5	3	30	4	5	4	2						
9	4	3	17	4	5	4							
10	13	3	7	4	5	5							
11	13	3	6	16	5	3							
12	5	4	6	16	5	3							
13	4	6	15	12	5	3							
14	35	6	11	23	12	3							
15	81	10	5	59	10	3							
16	27	8	4	31	15	3							
17	26	8	4	78	7	3							
18	14	8	4	76	7	3							
19	5	8	4	17	3	3							
20	119	12	17	21	15	3							
21	29	63	11	18	22	3							
22	17	12	10	11	23	3							
23	46	24	16	10	24	3			3				
24	84	22	24	16	24	20			3				
25	21	9	24	25	16	11			2				
26	81	8	32	28	8	5			1				
27	21	30	26	16	6	4							
28	19	20	27	37	5	3							
29	8	-	19	24	5	3							
30	6	-	7	16	5	3							
31	4	-	4	-	5	-							
Mean	27	11	19	19	10	5							
Min.	4	3	4	4	5	3							
Max.	119	63	68	68	24	20							
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-0.90	-0.69	-0.66	-0.65	-0.89							
2	-0.72	-0.88	-0.72	-0.77	-0.89							
3	-0.84	-0.68	-0.80	-0.63	-0.89							
4	-0.84	-0.94	-0.88	-0.78	-0.92							-0.42
5	-0.75	-0.82	-0.95	-0.71	-0.79							-0.19
6	-0.87	-0.74	-0.95	-0.55	-0.82							-0.12
7	-0.70	-0.76	-0.95	-0.45	-0.84							-0.05
8	-0.72	-0.88	-0.95	-0.60	-0.92							-0.05
9	-0.85	-0.94	-0.95	-0.34	-0.98							-0.02
10	-0.85	-0.93	-0.95	-0.70	-0.98							
11	-0.72	1.59	-0.95	-0.58	-0.98							
12	-0.71	0.88	-0.95	-0.40	-0.98							
13	-0.95	0.54	-0.76	-0.31	-0.99							
14	1.71	0.54	-0.84	-0.41	-0.99							
15	1.07	0.54	-0.92	-0.33	-0.99							
16	0.75	0.54	-0.95	-0.53								
17	1.05	0.54	-0.88	-0.68								
18	0.93	0.54	-0.62	-0.45								
19	1.24	0.70	-0.38	-0.42								
20	0.92	0.62	0.02	-0.15								
21	0.33	0.68	-0.45	-0.43								
22	-0.79	0.56	-0.68	-0.67								
23	-0.91	0.56	-0.84	-0.82								
24	-0.90	0.56	-0.95	-0.89								
25	-0.72	0.56	-0.95	-0.89								
26	-0.85	0.56	-0.95	-0.85								
27	-0.96	1.16	-0.95	-0.72								
28	-0.96	0.02	-0.95	-0.86								
29	-0.89	-	-0.95	-0.89								
30	-0.84	-	-0.79	-0.89								
31	-0.75	-	-0.57	-								
Mean	-0.35	0.12	-0.81	-0.61								
Min.	-0.96	-0.94	-0.95	-0.89								
Max.	1.71	1.59	0.02	-0.15								
Annual Mean :	(m)											
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2	7	8	8	3							
2	6	3	6	5	3							
3	4	8	4	9	3							
4	4	2	3	5	2							
5	6	4	2	7	5							17
6	3	6	2	12	4							29
7	7	5	2	16	4							33
8	6	3	2	10	2							37
9	3	2	2	21	1							37
10	3	2	2	7	1							39
11	6	221	2	11	1							
12	7	123	2	18	1							
13	2	86	5	22	1							
14	240	86	4	18	1						30	
15	146	86	2	21	1							
16	108	86	2	13								
17	143	86	3	8								
18	128	86	9	16								25
19	169	102	19	17								30
20	127	94	42	31								29
21	66	100	16	17								29
22	5	87	8	8								26
23	2	87	4	4								35
24	2	87	2	3								38
25	6	87	2	3								38
26	3	87	2	3							28	
27	2	158	2	6								22
28	2	42	2	3								26
29	3	-	2	3								24
30	4	-	5	3								25
31	6	-	11	-								17
Mean	39	65	6	11								
Min.	2	2	2	3								
Max.	240	221	42	31								
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1992		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	-0.39	-0.53	-0.90	-0.36	-0.82	-0.70			0.51	-0.80	-0.45	-0.19	
2	-0.31	-0.72	-0.89	-0.38	-0.89	-0.70			0.15	-0.80	-0.58	-0.33	
3	-0.19	-0.50	-0.82	-0.46	-0.90	-0.70			-0.20	-0.80	-0.68	-0.38	
4	-0.13	-0.51	-0.86	-0.25	-0.90	-0.70			-0.46	-0.80	-0.62	-0.59	
5	-0.29	-0.64	-0.68	-0.52	-0.90	-0.70			-0.79	-0.74	-0.44	-0.63	
6	-0.48	-0.28	-0.74	-0.74	-0.90	-0.64			-0.80	-0.77	-0.54	-0.60	
7	-0.50	-0.08	-0.58	-0.72	-0.90	-0.65			-0.80	-0.69	-0.46	-0.69	
8	-0.46	-0.08	-0.73	-0.23	-0.90	-0.79			-0.80	-0.59	-0.59	-0.71	
9	-0.67	-0.10	-0.43	-0.13	-0.90	-0.85			-0.80	-0.52	-0.60	-0.55	
10	-0.93	-0.10	-0.31	-0.29	-0.90	-0.83			-0.80	-0.77	-0.60	-0.56	
11	-0.61	-0.08	-0.29	-0.19	-0.90	-0.95			-0.80	-0.80	-0.34	-0.54	
12	-0.29	-0.09	-0.25	-0.19	-0.90	-0.95			-0.80	-0.80	-0.41	-0.61	
13	-0.09	-0.12	-0.02	-0.45	-0.90	-0.95			-0.77	-0.80	-0.55	-0.44	
14	-0.80	-0.19	-0.46	-0.54	-0.90	-0.95			-0.68	-0.68	-0.55	-0.40	
15	-0.65	-0.12	-0.17	-0.24	-0.90				-0.79	-0.55	-0.57	-0.58	
16	-0.52	-0.23	-0.05	-0.12					-0.80	-0.68	-0.76	-0.73	
17	-0.31	0.16	-0.27	-0.38					-0.80	-0.78	-0.78	-0.78	
18	-0.33	0.08	-0.58	-0.13					-0.80	-0.80	-0.34	-0.78	
19	-0.47	0.04	-0.79	-0.20					-0.80	-0.80	-0.25	-0.78	
20	-0.32	-0.15	-0.61	-0.14					-0.80	-0.80	-0.11	-0.78	
21	-0.35	-0.10	-0.59	-0.25					-0.80	-0.80	-0.11	-0.78	
22	-0.35	-0.28	-0.41	-0.54					-0.80	-0.61	-0.29	-0.67	
23	-0.57	-0.57	-0.58	-0.77	-0.22				-0.80	-0.61	-0.49	-0.52	
24	-0.55	-0.73	-0.73	-0.81	-0.41				-0.80	-0.73	-0.62	-0.62	
25	-0.64	-0.86	-0.81	-0.71	-0.68				-0.80	-0.67	-0.62	-0.68	
26	-0.49	-0.40	-0.66	-0.85	-0.71				-0.80	-0.64	-0.48	-0.67	
27	-0.47	-0.40	-0.84	-0.19	-0.70				-0.59	-0.48	-0.56	-0.56	
28	-0.34	-0.40	-0.87	-0.71	-0.73				-0.51	-0.55	-0.45	-0.65	
29	-0.52	-0.40	-0.70	-0.76	-0.47				-0.82	-0.68	-0.44	-0.22	
30	-0.62	-	-0.74	-0.71	-0.74				-0.90	-0.79	-0.48	-0.25	
31	-0.54	-	-0.41	-	-0.74				1.32	-	-	-0.59	
Mean	-0.46	-0.29	-0.57	-0.43					-0.67	-0.63	-0.48	-0.61	
Min.	-0.93	-0.86	-0.90	-0.85					-0.80	-0.80	-0.78	-0.78	
Max.	-0.09	0.16	-0.02	-0.12					0.51	0.80	-0.11	-0.19	
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1992		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	18	13	2	20	4	7			83	4	16	29	
2	22	6	3	19	3	7			51	4	11	21	
3	29	14	4	15	2	7			28	4	8	19	
4	32	13	3	25	2	7			15	4	9	10	
5	23	9	8	13	2	7			5	6	16	9	
6	15	24	6	6	2	8			4	5	12	10	
7	14	35	11	6	2	9			4	7	15	7	
8	15	35	6	26	2	5			4	10	10	7	
9	8	34	17	32	2	3			4	13	10	12	
10	2	34	22	23	2	4			4	5	10	11	
11	10	35	23	29	2	2			4	4	21	12	
12	23	35	25	29	2	2			4	4	18	10	
13	35	33	39	16	2	2			5	4	12	16	
14	4	29	15	12	2	2			8	8	12	18	
15	8	33	30	26	2	2			5	12	11	11	
16	13	26	37	33					4	8	5	6	
17	22	52	24	19					4	5	5	5	
18	21	46	11	32					4	4	21	5	
19	15	43	5	28					4	113	25	5	
20	22	31	10	32					4	4	33	5	
21	20	34	10	25					4	4	33	5	
22	20	24	18	12					4	10	23	8	
23	11	11	11	5	27				4	10	14	13	
24	12	6	6	4	18				4	6	9	9	
25	9	3	4	7	8				4	8	9	8	
26	14	18	8	3	7				4	9	15	8	
27	15	18	4	29	7				10	15	11	11	
28	21	18	3	7	6				13	12	16	8	
29	13	18	7	5	15			4	8	16	27	7	
30	9	-	6	7	6			2	5	15	25	7	
31	12	-	18	-	6			180	-	18	-	10	
Mean	16	26	13	18					11	11	15	10	
Min.	2	3	2	3					4	4	4	5	
Max.	35	52	39	33					83	113	33	29	
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1993		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	-0.53	-0.69	-0.43	-0.47	-0.93	-0.95					-1.90	-1.46	
2	-0.29	-0.29	-0.38	-0.58	-0.95	-0.95					-1.90	-1.46	
3	-0.38	-0.77	-0.38	-0.49	-0.95	-0.95					-1.90	-1.46	
4	-0.60	-0.53	-0.50	-0.50	-0.95	-0.95					-1.90	-1.37	
5	-0.61	-0.09	-0.33	-0.58	-0.95	-0.95					-1.90	-1.51	
6	-0.36	-0.14	-0.33	-0.48	-0.95	-0.95					-1.90	-1.32	
7	-0.08	0.90	-0.53	-0.51	-0.95	-0.95					-1.76	-1.39	
8	-0.30	-0.40	-0.77	-0.16		-0.77					-1.87	-1.43	
9	-0.48	-0.67	-0.46	-0.30		-0.76					-1.90	-1.08	
10	-0.59	-0.62	-0.16	-0.13		-0.70					-1.84	-0.85	
11	-0.50	-0.54	-0.39	-0.47		-0.60					-1.76	-0.64	
12	-0.64	-0.62	-0.07	-0.64		-0.80					-1.76	-0.55	
13	-0.63	-0.38	-0.17	-0.63		-0.63					-1.71	-0.58	
14	-0.40	-0.46	-0.47	-0.34		-0.68					-1.45	-0.66	
15	-0.54	-0.35	-0.59	-0.51		-0.65					-1.42	-0.29	
16	-0.62	-0.49	-0.50	-0.69		-0.60					-1.35	-0.44	
17	-0.47	-0.38	-0.51	-0.67		-0.78					-1.30	-0.63	
18	-0.46	-0.57	-0.58	-0.52		-0.82					-1.42	-0.46	
19	-0.33	-0.68	-0.56	-0.71		-0.82					-1.24	-0.18	
20	-0.50	-0.56	-0.51	-0.85		-0.87					-1.23	-0.22	
21	-0.60	-0.65	-0.46	-0.90		-0.94					-1.20	-0.14	
22	-0.43	-0.64	-0.48	-0.92		-0.95					-1.65	-1.13	
23	-0.21	-0.75	-0.54	-0.92	-0.89	-0.95					-1.65	-1.23	
24	-0.50	-0.84	-0.48	-0.92	-0.92	-0.95					-1.65	-1.24	
25	-0.37	-0.88	-0.59	-0.92	-0.92	-0.95					-1.70	-1.25	
26	-0.14	-0.88	-0.57	-0.92	-0.92	-0.98					-1.70	-1.26	
27	-0.45	-0.68	-0.55	-0.92	-0.83						-1.70	-1.51	
28	-0.68	-0.77	-0.51	-0.92	-0.92						-1.85	-1.33	
29	-0.15	-	-0.64	-0.92	-0.95						-1.90	-1.25	
30	-0.51	-	-0.70	-0.92	-0.95						-1.90	-1.42	
31	-0.67	-	-0.54	-	-0.95						-	-1.89	
Mean	-0.45	-0.52	-0.47	-0.65							-1.55	-0.88	
Min.	-0.68	-0.88	-0.77	-0.92							-1.90	-1.89	
Max.	-0.08	0.90	-0.07	-0.13							-1.13	0.25	

Annual Mean : (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1993		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	13	7	17	15	2	2					14	2	
2	23	23	19	11	2	2					14	2	
3	19	5	19	14	2	2					14	2	
4	10	13	14	14	2	2					14	1	
5	10	35	21	11	2	2					14	3	
6	20	32	21	15	2	2					14	0	
7	35	125	13	13	2	2					9	1	
8	23	18	5	30	5	5					13	2	
9	15	8	15	23	5	5					14	0	
10	10	9	30	32	7	7					12	3	
11	14	12	18	15	10	10					9	9	
12	9	9	36	9	4	4					9	12	
13	9	19	30	9	9	9					8	11	
14	18	15	15	21	8	8					2	8	
15	12	20	10	13	8	8					1	23	
16	9	14	14	7	10	10					1	16	
17	15	19	13	8	5	5					0	9	
18	15	11	11	13	4	4					1	15	
19	21	8	11	7	4	4					0	29	
20	14	11	13	3	3	3					6	0	
21	10	8	15	2	2	2					0	32	
22	17	9	15	2	2	2					6	0	
23	28	6	12	2	3	2					6	0	
24	14	4	15	2	2	2					6	0	
25	19	3	10	2	2	2					7	0	
26	32	3	11	2	2	1					7	0	
27	16	8	12	2	4	3					7	3	
28	8	5	13	2	2	2					12	3	
29	31	-	9	2	2	2					14	0	
30	13	-	7	2	2	2					14	1	
31	8	-	12	-	2	-					14	-	
Mean	16	16	15	10							6	12	
Min.	8	3	5	2							0	0	
Max.	35	125	36	32							14	59	

Annual Total : (10<sup>6</sup> m<sup>3</sup>)

Annual Mean : (m<sup>3</sup>/sec)

**OBSERVED DAILY WATER LEVEL AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean												
Min.												
Max.												
Annual Mean :	(m)											

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29		-										
30		-										
31												
Mean												
Min.												
Max.												
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

**OBSERVED DAILY WATER LEVEL AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	1995												Year
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
1	0.57	1.19	1.41	1.07	1.21	0.95	0.60					0.21	1.27
2	0.63	1.06	2.59	1.03	0.93	0.73	0.77					0.12	1.18
3	0.39	1.15	1.91	0.93	0.73	0.71	0.93					0.05	1.17
4	0.50	1.27	1.31	0.83	0.68	0.72	0.79					0.05	1.07
5	1.11	1.02	1.05	0.84	0.68	0.65	0.71			0.06		0.05	1.01
6	1.63	1.97	1.07	1.35	0.68	0.82	0.84			0.14		0.37	0.96
7	1.27	1.37	1.64	1.04	0.71	0.79	0.68			0.18		0.22	2.45
8	1.27	1.70	1.13	0.90	0.81	0.83	1.05			0.26		0.16	1.98
9	0.60	1.34	0.93	0.84	0.74	0.84	1.36			0.32		0.21	1.37
10	1.31	2.06	0.89	0.79	0.86	0.93	1.13			0.35		0.27	1.07
11	1.96	1.67	0.84	0.78	1.29	0.98	0.91			0.38		0.27	0.98
12	1.85	2.61	0.66	0.75	0.89	1.19	0.73			0.41		0.40	1.17
13	1.40	1.54	0.81	0.70	0.74	1.14	0.58			0.44		1.08	1.39
14	1.38	1.84	1.48	0.68	0.71	1.19	0.43			0.53		0.83	1.25
15	0.95	1.14	1.65	0.68	0.73	1.07	0.30			0.62		1.14	1.13
16	0.87	1.13	1.28	0.83	0.78	0.92	0.23			0.71		0.87	1.14
17	1.03	0.94	1.13	1.12	0.71	0.80	0.14			0.90		1.05	0.88
18	1.31	1.63	1.05	0.93	0.70	0.75	0.05			0.70		1.28	0.84
19	1.31	1.23	1.19	0.79	0.76	0.78	0.03			0.63		0.95	0.76
20	1.09	2.24	1.30	0.77	0.71	0.68	0.03			0.62		0.84	0.67
21	1.71	1.32	0.93	0.82	0.70	0.84	0.03			0.55		1.84	0.88
22	1.55	1.26	1.12	0.69	0.67	1.10				0.51		1.53	0.84
23	1.02	2.01	1.30	0.68	0.64	0.97				0.50		1.60	0.95
24	1.10	1.22	1.14	0.65	0.60	0.87				0.66		1.67	0.93
25	1.85	1.67	0.91	0.63	0.60	0.80				0.53		1.08	0.84
26	1.17	1.41	0.69	0.63	0.57	1.06				0.46		3.24	0.76
27	1.05	2.41	0.97	0.63	0.54	0.90				0.40		2.35	0.71
28	0.87	1.51	0.92	0.73	0.54	0.76				0.89		2.00	0.70
29	0.89	-	1.12	1.39	0.54	0.64				0.68		1.31	0.70
30	0.81	-	1.33	1.38	0.54	0.60				0.55		1.36	0.70
31	0.83	-	1.06	-	0.54	-				0.35		-	0.70
Mean	1.14	1.53	1.19	0.86	0.73	0.87						0.95	1.05
Min.	0.39	0.94	0.66	0.63	0.54	0.60						0.05	0.67
Max.	1.96	2.61	2.59	1.39	1.29	1.19						3.24	2.45
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	1995												Year
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
1	89	162	193	146	165	131	92					56	173
2	95	145	408	141	128	105	110					49	159
3	71	156	274	128	105	103	128					44	160
4	82	173	179	117	100	104	112					44	146
5	151	140	143	118	100	97	103			45		44	138
6	227	285	146	184	100	116	118			51		70	132
7	173	187	229	142	103	112	100			54		57	378
8	173	238	154	125	114	117	143			60		52	287
9	92	183	128	118	107	118	186			65		56	187
10	179	301	124	112	120	128	154			68		61	146
11	283	234	118	111	176	135	126			71		61	135
12	264	412	98	108	124	162	105			73		72	159
13	192	213	114	102	107	155	90			76		147	190
14	189	262	204	100	103	162	75			85		117	170
15	131	155	230	100	105	146	64			94		155	154
16	121	154	174	117	111	127	58			103		121	155
17	141	130	154	152	103	113	51			125		143	123
18	179	227	143	128	102	108	44			102		174	118
19	179	167	162	112	109	111	43			95		131	109
20	149	336	177	110	103	100	43			94		118	99
21	240	180	128	116	102	118	43			87		262	123
22	214	171	152	101	99	150				83		211	118
23	140	292	177	100	96	133				82		222	131
24	150	166	155	97	92	121				98		234	128
25	264	234	126	95	92	113				85		147	118
26	159	193	101	95	89	145				78		560	109
27	143	370	133	95	86	125				72		358	103
28	121	208	127	105	86	109				124		290	102
29	124	-	152	190	86	96				100		179	102
30	114	-	181	189	86	92				87		186	102
31	117	-	145	-	86	-				68		-	102
Mean	159	217	166	122	106	122						147	147
Min.	71	130	98	95	86	92						44	99
Max.	283	412	408	190	176	162						560	378
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												



OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.79	0.86	1.63	0.67	0.55	0.40	0.53				0.52	0.58
2	0.74	0.82	1.12	0.67	0.55	0.40	0.38				0.64	0.87
3	0.83	0.83	0.95	0.76	0.55	0.53	0.23		0.84		0.49	0.93
4	1.10	0.75	0.84	0.67	0.51	0.42	0.14		0.81		0.38	0.83
5	0.90	0.70	0.83	0.63	0.44	0.38	0.08		0.48		0.34	0.97
6	0.77	0.86	0.70	0.60	0.40	0.43	0.08		0.33		0.59	1.14
7	0.97	0.92	0.63	0.60	0.40	0.40	0.04		0.41		0.66	0.89
8	0.93	0.95	0.60	0.56	0.40	0.43			0.85		0.49	0.70
9	0.95	1.37	0.63	0.50	0.40	0.56		0.75	0.52		0.45	0.55
10	0.76	1.10	0.71	0.50	0.40	0.60			0.38		0.75	0.47
11	0.68	1.18	0.91	0.55	0.40	0.52		0.63	0.28		0.97	0.60
12	0.64	1.51	1.11	0.66	0.40	0.45		0.48	0.19		0.81	1.00
13	1.14	1.52	0.97	0.62	0.40	0.35		0.40	0.10		0.58	1.85
14	1.15	1.26	1.09	0.68	0.46	0.29		0.33	0.06		0.45	1.50
15	0.92	1.09	1.12	0.95	0.64	0.25		0.27	0.06		0.32	1.03
16	1.22	1.04	1.07	0.93	0.58	0.25		0.25	0.06		0.49	0.76
17	1.06	0.95	0.98	0.87	0.47	0.20		0.25	0.08		0.92	0.65
18	1.10	1.14	1.05	1.05	0.53	0.13		0.25	0.11		1.15	0.87
19	0.99	0.95	1.29	1.35	0.61	0.06		0.25	0.20		1.00	0.71
20	1.27	1.73	1.10	1.19	0.61	0.04		0.19	0.30		1.01	0.69
21	1.42	1.33	0.85	1.19	0.60	0.04		0.14	0.64		0.67	0.63
22	1.41	1.20	1.18	1.23	0.60			0.07	0.37		0.75	0.60
23	1.48	1.45	1.50	1.02	0.60			0.02	0.34		0.92	0.60
24	1.71	1.05	1.34	0.85	0.52				0.42		0.90	0.53
25	1.22	0.83	1.02	0.79	0.45				0.56		0.70	0.35
26	1.36	0.86	1.08	0.70	0.42				0.64		0.63	0.30
27	1.25	0.90	1.00	0.61	0.40	0.48			0.79		0.59	0.30
28	0.94	1.11	1.09	0.57	0.40	0.46			1.00		0.50	0.30
29	1.41	1.79	0.92	0.55	0.40	0.60			1.11		0.40	0.30
30	1.00	-	0.69	0.55	0.40	0.65			0.79		0.38	0.30
31	0.90	-	0.67	-	0.40	-			-		-	0.30
Mean	1.06	1.08	0.98	0.77	0.48						0.65	0.71
Min.	0.64	0.70	0.60	0.50	0.40						0.32	0.30
Max.	1.71	1.73	1.63	1.35	0.64						1.15	1.85

Annual Mean : (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	112	120	227	99	87	72	85				84	90
2	107	116	152	99	87	72	71				96	121
3	117	117	131	109	87	85	58			118	80	128
4	150	108	118	99	83	74	51			114	71	117
5	125	102	117	95	76	71	46			80	67	134
6	110	120	102	92	72	75	46			66	90	156
7	133	127	95	92	72	72	43			73	98	123
8	128	131	92	88	72	75				119	81	102
9	131	187	95	82	72	88				84	77	87
10	109	150	103	82	72	92		108		70	108	79
11	100	160	126	87	72	84		95		62	133	91
12	96	208	151	98	72	77		80		54	114	137
13	155	210	133	94	72	68		72		48	90	264
14	156	171	149	100	78	63		66		45	77	206
15	127	149	152	131	96	59		61		45	65	141
16	166	142	146	128	90	59		59		45	81	108
17	145	131	135	121	79	55		59		46	128	97
18	150	155	117	143	85	50		59		48	156	122
19	136	131	176	184	93	45		59		56	137	103
20	173	243	150	162	93	43		55		64	138	101
21	195	181	119	162	92	43		51		95	99	94
22	193	163	160	167	92			46		69	107	92
23	204	199	207	140	92			42		67	127	92
24	240	143	183	119	84					75	125	84
25	166	117	140	112	77					88	102	68
26	186	120	147	102	74	94				95	95	64
27	170	125	137	93	72	80				112	91	64
28	130	151	149	89	72	78				137	81	64
29	193	254	127	87	72	92				151	73	64
30	137	-	101	87	72	97				112	71	64
31	125	-	99	-	72	-				111	-	64
Mean	147	149	137	111	80						98	107
Min.	96	102	92	82	72						65	64
Max.	240	243	227	184	96						156	264

Annual Mean : (m<sup>3</sup>/sec)

Annual Total : (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.78	0.40	0.58	0.62	1.26	0.40						0.51
2	0.43	0.40	0.51	0.63	0.98	0.40						0.40
3	0.36	0.90	0.50	0.81	0.80	0.34						0.81
4	0.32	0.72	0.53	0.70	0.63	0.23						0.71
5	0.30	0.90	0.64	0.64	0.74	0.14						0.86
6	0.30	0.88	0.52	0.60	0.84	0.07						0.70
7	0.53	0.65	0.50	0.78	0.60	0.05						0.64
8	0.45	0.66	0.50	0.77	0.82	0.05						0.75
9	1.10	1.77	0.57	0.79	0.65	0.21						0.75
10	1.42	1.38	0.74	0.92	0.53	0.13						0.64
11	1.41	1.04	1.13	1.32	0.94	0.06						0.55
12	1.12	0.89	0.99	1.53	1.52	0.05						1.01
13	1.03	2.92	0.82	1.20	1.22	0.05						1.28
14	2.19	2.43	0.67	1.02	1.01	0.05						0.80
15	2.26	1.60	0.58	0.98	0.83	0.05						0.74
16	1.75	1.13	0.50	0.84	0.66	0.70						0.79
17	1.24	0.94	0.42	0.73	0.67	0.59						0.45
18	1.06	0.89	0.40	0.91	0.73	0.47						0.32
19	0.97	1.23	0.40	0.73	0.64	0.36						0.26
20	0.89	0.98	0.40	0.64	0.59	0.28						0.23
21	1.03	0.82	0.40	0.63	0.55	0.18						0.30
22	0.90	0.66	0.40	0.73	0.66	0.08						0.24
23	0.81	0.58	0.40	1.64	0.57	0.03						0.33
24	0.92	0.56	0.96	1.61	0.50	0.03						0.44
25	1.09	0.80	0.78	1.35	0.42	0.03						0.89
26	1.15	0.94	0.67	1.02	0.34							0.75
27	0.96	0.74	0.79	0.82	0.64							0.80
28	0.70	0.91	0.78	0.73	0.61						1.17	0.90
29	0.58	-	1.02	0.65	0.50						0.77	0.94
30	0.49	-	0.64	1.69	0.43						0.60	0.99
31	0.42	-	0.58	-	0.40						-	0.68
Mean	0.93	1.03	0.62	0.93	0.72							0.66
Min.	0.30	0.40	0.40	0.60	0.34							0.23
Max.	2.26	2.92	1.13	1.69	1.52							1.28
Annual Mean :	(m)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	111	72	90	94	171	72						82
2	75	72	83	95	135	72						72
3	69	125	82	114	113	67						115
4	65	104	85	102	95	58						103
5	64	125	96	96	107	51						120
6	64	123	84	92	118	46						102
7	85	97	82	111	92	44						96
8	77	98	82	110	116	44						108
9	150	250	89	112	97	56						107
10	195	189	107	127	85	50						96
11	193	142	154	180	130	45						87
12	152	124	136	211	210	44						138
13	141	482	116	163	166	44						175
14	326	374	99	140	138	44						113
15	340	222	90	135	117	44						107
16	247	154	82	118	98	102						112
17	169	130	74	105	99	91						77
18	145	124	72	126	105	79						65
19	133	167	72	105	96	69						60
20	124	135	72	96	91	62						58
21	141	116	72	95	87	54						64
22	125	98	72	105	98	46						59
23	114	90	72	229	89	43						66
24	127	88	132	224	82	43						76
25	149	113	111	184	74	43						123
26	156	130	99	140	67							113
27	132	107	112	116	96							107
28	102	126	111	105	93						159	124
29	90	-	140	97	82						110	130
30	81	-	96	237	75						92	135
31	74	-	90	-	72						-	100
Mean	136	149	95	132	106							100
Min.	64	72	72	92	67							58
Max.	340	482	154	237	210							175
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1998		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	0.40	1.47	1.25	1.85	1.15	1.00	0.54	0.63	0.05	0.42	0.94	0.64	
2	0.26	0.98	1.30	1.45	1.00	0.78	0.51	0.47	0.05	0.36	0.73	0.73	
3	0.19	0.94	1.52	1.05	0.78	0.63	0.51	0.36	0.25	0.25	1.62	0.57	
4	0.08	1.00	1.62	0.90	0.60	1.43	0.41	0.32	0.22	0.32	1.24	0.62	
5	0.05	1.19	1.67	0.77	0.48	1.36	0.40	0.33	0.14	0.21	0.92	0.49	
6	0.47	1.03	1.63	0.87	0.40	1.77	0.58	0.28	0.20	0.46	1.65	0.43	
7	0.70	0.92	1.07	0.90	0.42	1.48	0.69	0.21	0.23	0.49	1.30	0.35	
8	0.76	1.20	0.89	0.79	0.50	1.27	0.95	0.13	0.18	0.63	0.85	0.30	
9	0.82	0.96	1.16	0.89	0.42	1.00	1.07	0.08	0.30	0.52	0.56	0.30	
10	0.76	1.67	1.24	1.01	0.40	0.79	0.86	0.05	0.19	0.45	0.46	0.30	
11	0.70	1.23	1.10	1.48	0.40	0.62	0.72	0.05	0.11	0.34	0.62	0.30	
12	0.53	1.28	1.10	1.95	0.40	0.51	0.64	0.05	0.07	0.26	0.70	0.25	
13	0.37	0.99	0.97	1.33	0.51	0.42	1.20	0.05	0.07	0.20	0.57	0.23	
14	0.30	0.80	0.90	0.98	0.62	0.40	1.14	0.05	0.07	0.10	0.46	0.20	
15	0.95	1.51	1.50	0.97	0.48	0.43	0.96	0.05	0.07	0.06	0.52	0.35	
16	0.72	1.42	1.38	1.16	0.43	1.21	0.77		0.11	0.06	0.66	0.38	
17	1.24	1.40	1.17	0.93	0.51	1.34	0.75		0.20	0.09	1.94	0.72	
18	1.19	1.66	1.41	0.77	0.61	1.53	0.95		0.31	0.55	2.00	1.28	
19	0.92	1.30	1.88	1.35	0.52	1.60	0.95		0.20	0.56	1.25	1.70	
20	0.98	1.12	2.51	1.06	0.46	1.19	0.81		0.15	1.10	1.35	1.26	
21	0.77	1.24	1.70	0.82	0.41	0.90	0.67		0.08	0.87	0.93	1.12	
22	0.64	1.64	1.27	0.69	0.40	0.88	0.63		0.14	1.14	0.71	0.95	
23	0.60	1.49	2.12	0.50	0.40	0.86	0.84		0.16	0.72	0.50	1.66	
24	0.60	1.15	1.68	0.66	0.39	0.67	0.94		0.16	1.63	0.35	1.25	
25	0.60	0.95	1.08	0.50	0.36	0.47	0.80		0.22	1.54	0.26	0.82	
26	0.70	1.00	0.87	0.55	0.86	0.39	0.76	0.20	0.36	0.93	0.20	0.68	
27	0.70	1.13	1.71	1.14	1.57	0.39	0.95	0.20	0.51	0.86	0.33	0.57	
28	1.05	0.94	2.60	1.23	1.23	0.90	1.53	0.30	0.32	0.57	0.55	0.50	
29	0.88	-	1.75	1.56	1.11	0.88	1.20	0.34	0.32	0.78	0.63	1.05	
30	1.14	-	1.34	1.42	1.48	0.66	0.82	0.20	0.42	0.83	0.58	0.87	
31	1.60	-	1.21	-	1.20	-	0.62	0.09	-	1.08	-	1.15	
Mean	0.70	1.20	1.44	1.05	0.66	0.92	0.81		0.20	0.59	0.85	0.71	
Min.	0.05	0.80	0.87	0.50	0.36	0.39	0.40		0.05	0.06	0.20	0.20	
Max.	1.60	1.67	2.60	1.95	1.57	1.77	1.53		0.51	1.63	2.00	1.70	
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1998		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	72	202	170	264	157	137	86	94	44	74	130	96	
2	61	134	177	199	137	111	82	79	44	69	105	105	
3	55	130	210	144	111	95	83	69	59	59	225	89	
4	46	137	226	125	91	196	73	66	57	65	169	94	
5	44	162	234	110	80	186	72	66	50	56	127	81	
6	79	141	227	121	73	251	89	62	55	78	230	75	
7	102	127	146	125	74	203	101	56	58	81	177	68	
8	109	163	124	112	81	173	131	50	54	95	119	64	
9	116	132	157	124	74	137	146	46	63	84	88	64	
10	109	234	169	139	72	112	121	44	55	77	78	64	
11	102	167	150	203	72	94	104	44	49	67	94	64	
12	84	174	149	281	72	82	96	44	46	60	102	59	
13	70	135	134	181	83	74	163	44	46	55	89	58	
14	64	113	125	135	94	72	156	44	46	48	78	55	
15	131	208	207	133	80	75	132	44	46	45	84	68	
16	105	195	189	158	75	165	110	49	49	45	98	71	
17	169	191	160	128	82	183	108	55	47	280	104	174	
18	161	232	193	110	92	211	131	64	64	87	290	174	
19	127	177	269	184	84	222	131	56	88	170	238	171	
20	134	152	391	145	78	162	114	51	150	184	171	171	
21	110	168	238	116	73	125	99	46	121	128	152	131	
22	96	228	173	101	72	122	95	50	155	103	131	131	
23	92	205	313	81	72	120	117	52	104	82	232	232	
24	92	157	235	98	72	99	129	52	227	68	170	170	
25	92	131	148	82	69	79	114	57	213	60	116	116	
26	102	137	122	87	120	72	108	56	69	128	55	100	
27	103	154	240	155	218	71	131	55	83	120	66	89	
28	143	130	410	168	167	125	211	64	65	89	87	82	
29	122	-	246	216	152	122	163	67	66	111	95	143	
30	155	-	182	195	204	98	116	56	75	117	90	121	
31	222	-	164	-	163	-	93	47	-	147	-	156	
Mean	105	165	202	147	101	132	116	55	96	125	108	108	
Min.	44	113	122	81	69	71	72	44	44	45	55	55	
Max.	222	234	410	281	218	251	211	83	227	290	238	238	
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

**OBSERVED DAILY WATER LEVEL AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1999		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	1.25	1.62	1.44	0.54	1.23	0.25	0.30	0.25	0.08	0.44	0.35	0.35	
2	1.73	1.25	1.05	0.50	0.97	0.20	0.32	0.18	0.04	0.46	0.30	0.30	
3	3.05	0.84	0.77	0.70	0.84	0.25	0.39	0.26	0.04	0.63	0.47	0.47	
4	1.64	1.24	0.64	0.61	0.98	0.28	0.43	0.34	0.04	0.59	0.96	0.96	
5	1.07	1.23	0.55	0.64	1.07	0.32	0.44	0.26	0.04	0.62	1.13	1.13	
6	0.81	0.90	0.57	0.87	0.93	0.24	0.55	0.19	0.03	0.43	0.74	0.74	
7	0.63	1.14	1.56	1.39	0.84	0.20	0.46	0.17		0.32	0.60	0.60	
8	0.54	0.96	1.54	1.46	0.77	0.36	0.39	0.36		0.43	0.52	0.52	
9	1.97	1.97	1.17	1.08	1.06	0.33	0.26	0.38		0.56	0.45	0.45	
10	1.70	1.59	3.46	0.96	0.97	0.26	0.20	0.41	0.36	0.42	0.40	0.40	
11	1.58	1.08	1.97	0.82	0.88	0.27	0.15	0.43	0.23	0.29	2.97	2.97	
12	1.13	0.84	1.85	0.73	1.09	0.35	0.23	0.32	0.29	0.45	1.76	1.76	
13	1.25	0.72	1.44	0.67	1.25	0.42	0.27	0.25	0.21	0.50	2.82	2.82	
14	0.86	1.93	2.98	1.28	1.07	0.33	0.33	0.32	0.27	0.56	2.94	2.94	
15	0.95	1.37	1.96	1.23	0.87	0.26	0.39	0.23	0.29	0.58	1.53	1.53	
16	0.97	1.09	1.69	0.98	0.75	0.34	0.46	0.17	0.35	0.76	1.26	1.26	
17	0.71	0.76	1.72	2.35	0.64	0.33	0.48	0.17	0.24	0.67	1.09	1.09	
18	0.60	0.66	1.90	1.82	0.57	0.35	0.47	0.15	0.29	0.56	0.85	0.85	
19	0.54	0.57	1.75	0.99	0.50	0.27	0.36	0.10	0.28	0.62	0.73	0.73	
20	1.09	0.65	1.06	0.74	0.45	0.25	0.42	0.07	0.22	0.45	0.64	0.64	
21	0.86	1.37	0.82	0.61	0.40	0.48	0.35	0.04	0.17	0.79	0.53	0.53	
22	0.73	1.56	1.46	0.50	0.42	0.42	0.27	0.04	0.12	0.78	2.08	2.08	
23	0.63	1.62	0.62	0.45	0.36	0.46	0.21	0.04	0.44	1.49	1.07	1.07	
24	1.04	1.72	1.04	0.40	0.35	0.40	0.23	0.04	0.36	1.24	1.72	1.72	
25	0.96	1.09	0.82	0.40	0.30	0.47	0.28	0.02	0.18	1.30	1.09	1.09	
26	1.67	1.23	0.70	0.56	0.25	0.48	0.27		0.23	1.04	1.07	1.07	
27	1.41	0.94	0.64	0.74	0.25	0.46	0.19		0.14	0.35	0.78	0.92	
28	1.15	1.72	0.57	0.84	0.36	0.32	0.23		0.06	0.35	1.36	1.36	
29	1.44	-	0.76	0.72	0.28	0.39	0.15		0.04	0.41	1.14	1.14	
30	1.17	-	0.63	0.96	0.25	0.38	0.24		0.04	0.30	0.41	0.93	
31	1.35	-	0.55	-	0.25	-	0.28		-	0.56	-	0.94	
Mean	1.21	1.20	1.28	0.88	0.68	0.34	0.32			0.64	1.14	1.14	
Min.	0.54	0.57	0.55	0.40	0.25	0.20	0.15			0.29	0.30	0.30	
Max.	3.05	1.97	3.46	2.35	1.25	0.48	0.55			1.49	2.97	2.97	
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 1999		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	318	225	198	86	167	59	64	59		46	76	68	
2	243	170	143	82	133	55	65	54		43	78	64	
3	513	118	110	102	118	59	71	60		43	95	79	
4	229	169	96	93	135	62	75	67		43	91	132	
5	146	167	87	96	146	65	76	60		43	94	154	
6	114	125	89	121	128	59	87	55		43	75	107	
7	95	155	216	190	118	55	78	53			65	92	
8	86	132	213	201	110	69	71	69			75	84	
9	285	285	159	147	145	66	60	71			88	77	
10	238	221	617	132	133	60	55	73		69	74	72	
11	219	147	285	116	123	61	51	75		58	63	494	
12	154	118	264	105	149	68	58	65		56	77	248	
13	170	104	198	99	170	74	61	59		56	82	459	
14	120	278	496	174	146	66	66	65		61	88	486	
15	131	187	283	167	121	60	71	58		63	90	211	
16	133	149	237	135	108	67	78	53		68	109	171	
17	103	109	242	358	96	66	80	53		59	99	149	
18	92	98	273	259	89	68	79	51		63	88	119	
19	86	89	247	136	82	61	69	48		62	94	105	
20	149	97	145	107	77	59	74	46		57	77	96	
21	120	187	116	93	72	80	68	43		53	112	85	
22	105	216	201	82	74	74	61	43		49	111	305	
23	95	225	94	77	69	78	56	43		76	205	146	
24	142	242	142	72	68	72	58	43		69	169	242	
25	132	149	116	72	64	79	62	42	54	70	177	149	
26	234	167	102	88	59	80	61		58	67	142	146	
27	193	130	96	107	59	78	55		51	68	111	127	
28	156	242	89	118	69	65	58		45	68	94	186	
29	198	-	109	104	62	71	51		43	73	82	155	
30	159	-	95	132	59	71	59		43	64	73	128	
31	184	-	87	-	59	-	62		-	88	-	130	
Mean	172	168	188	128	103	67	66				98	170	
Min.	86	89	87	72	59	55	51				63	64	
Max.	513	285	617	358	170	80	87				205	494	
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.01	0.98	0.92	0.44	0.83	0.49	0.07	0.07	0.07	0.07	0.47	0.75
2	0.95	1.87	1.18	1.79	0.67	0.40	0.07	0.07	0.07	0.07	0.68	0.89
3	1.06	1.88	2.04	1.88	0.56	0.55	0.07	0.07	0.07	0.07	0.72	0.77
4	1.47	3.12	2.05	1.52	0.51	0.46	0.07	0.07	0.07	0.07	0.69	0.66
5	1.65	3.10	1.74	1.20	0.47	0.47	0.07	0.07	0.07	0.07	0.44	0.58
6	1.38	1.86	1.43	0.99	0.43	0.45	0.07	0.07	0.07	0.07	0.25	0.49
7	1.64	1.94	1.29	1.12	0.39	1.95	0.07	0.07	0.07	0.07	0.17	0.42
8	1.44	1.80	1.36	1.63	0.36	1.40	0.07	0.07	0.07	0.07	0.47	0.36
9	1.12	1.57	1.84	1.26	0.33	1.15	0.07	0.07	0.07	0.07	0.29	0.37
10	1.65	1.48	1.85	1.32	0.37	0.95	0.07	0.07	0.07	0.07	0.22	0.56
11	1.40	1.41	1.39	1.21	0.42	0.71	0.07	0.07	0.07	0.07	0.17	1.04
12	1.22	1.26	0.95	0.96	0.42	0.58	0.07	0.07	0.07	0.07	0.92	1.58
13	1.04	1.09	0.93	0.84	0.36	0.16	0.07	0.07	0.07	0.07	0.72	2.74
14	0.91	0.93	1.98	0.75	0.35	0.40	0.07	0.07	0.07	0.07	0.54	1.52
15	0.85	0.80	1.50	0.85	0.32	0.30	0.07	0.07	0.07	0.07	0.58	0.90
16	0.84	0.70	1.09	1.16	0.32	0.25	0.07	0.07	0.07	0.07	0.65	0.75
17	0.71	0.61	0.82	1.71	0.32	0.22	0.07	0.07	0.07	0.07	0.55	0.98
18	0.60	1.10	0.90	2.02	0.32	0.16	0.07	0.07	0.07	0.07	0.56	0.80
19	0.52	0.98	0.83	1.56	0.80	0.09	0.07	0.07	0.07	0.07	0.57	0.70
20	0.65	1.35	0.96	1.25	0.66	0.07	0.07	0.07	0.07	0.07	0.58	0.63
21	2.02	1.74	0.88	1.12	0.49	0.07	0.07	0.07	0.07	0.07	0.46	0.55
22	1.74	1.80	0.75	1.41	0.41	0.07	0.07	0.07	0.07	0.07	0.87	0.52
23	1.39	2.72	0.70	1.39	0.32	0.07	0.07	0.07	0.07	0.07	1.29	0.47
24	1.04	1.65	0.56	1.54	0.30	0.10	0.07	0.07	0.07	0.07	0.98	0.41
25	0.97	1.77	0.49	1.09	0.39	0.07	0.07	0.07	0.07	0.07	1.34	0.37
26	0.92	1.46	0.72	1.06	0.45	0.07	0.07	0.07	0.07	0.50	1.19	0.35
27	1.16	2.03	0.82	1.02	0.44	0.07	0.07	0.07	0.07	0.36	1.14	0.86
28	1.43	1.38	0.63	0.84	0.44	0.07	0.07	0.07	0.07	0.57	0.99	0.85
29	1.27	1.07	0.57	0.92	0.39	0.07	0.07	0.07	0.07	0.60	0.79	0.89
30	1.14	1.14	0.45	0.77	0.45	0.07	0.07	0.07	0.07	0.53	0.97	0.72
31	1.15	0.42	0.42	0.50	0.50	0.07	0.07	0.07	0.07	0.48	0.58	0.58
Mean	1.17	1.59	1.10	1.22	0.45	0.40	0.07	0.07	0.07	0.15	0.68	0.78
Min.	0.52	0.61	0.42	0.44	0.30	0.07	0.07	0.07	0.07	0.07	0.17	0.35
Max.	2.02	3.12	2.05	2.02	0.83	1.95	0.07	0.07	0.07	0.60	1.34	2.74

Annual Mean : 0.64 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	138	135	127	76	117	81	46	46	46	46	79	108
2	131	267	160	254	99	72	46	46	46	46	46	124
3	145	269	298	269	88	87	46	46	46	46	100	110
4	202	530	300	210	83	78	46	46	46	46	101	98
5	230	525	245	163	79	79	46	46	46	46	76	90
6	189	266	196	136	75	77	46	46	46	46	46	59
7	229	280	176	152	71	281	46	46	46	46	53	74
8	198	255	186	227	69	192	46	46	46	46	79	69
9	152	218	262	171	66	156	46	46	46	46	63	70
10	230	204	264	180	70	131	46	46	46	46	57	88
11	192	193	190	165	75	103	46	46	46	46	46	53
12	166	171	131	132	74	90	46	46	46	46	127	219
13	142	149	128	118	69	52	46	46	46	46	104	441
14	126	128	287	108	68	72	46	46	46	46	86	210
15	119	113	207	119	65	64	46	46	46	46	46	90
16	118	102	149	158	65	59	46	46	46	46	46	97
17	103	93	116	240	65	57	46	46	46	46	87	135
18	92	150	125	294	65	52	46	46	46	46	88	113
19	84	135	117	216	113	47	46	46	46	46	89	102
20	97	184	132	170	98	46	46	46	46	46	46	90
21	294	245	123	152	81	46	46	46	46	46	78	87
22	245	255	108	193	73	46	46	46	46	46	121	84
23	190	436	102	190	65	46	46	46	46	46	176	79
24	142	230	88	213	64	48	46	46	46	46	135	73
25	133	250	81	149	71	46	46	46	46	46	183	70
26	127	201	104	145	77	46	46	46	46	46	82	162
27	158	296	116	140	76	46	46	46	46	46	69	155
28	196	189	95	118	76	46	46	46	46	46	89	136
29	173	145.97	89	127	71	46	46	46	46	46	112	124
30	155	-	77	110	77	46	46	46	46	46	85	104
31	156	-	74	-	82	-	46	46	46	46	80	90
Mean	163	231	156	170	77	78	46	46	46	46	102	117
Min.	84	93	74	76	64	46	46	46	46	46	46	53
Max.	294	530	300	294	117	281	46	46	46	46	183	441

Annual Mean : 107 (m<sup>3</sup>/sec) Annual Total : 3,343 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 2001		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	0.50	0.60	0.75	1.09	0.40	0.81	0.30	0.30	0.09	0.27	0.99	0.79	
2	0.46	0.57	1.16	1.17	0.40	0.85	0.30	0.30	0.05	0.22	0.81	0.64	
3	0.64	0.75	0.94	0.95	0.73	0.69	0.30	0.32	0.04	0.19	0.66	0.61	
4	1.17	0.95	0.77	0.79	0.95	1.07	0.30	0.33	0.04	0.24	0.60	0.70	
5	2.86	0.91	1.35	0.64	0.85	0.92	0.30	0.29	0.04	0.34	0.59	0.76	
6	2.52	0.89	1.18	0.53	0.74	0.75	0.34	0.31	0.04	0.42	0.70	0.64	
7	1.80	1.31	1.45	1.66	0.67	0.60	0.36	0.24	0.04	0.47	0.64	0.56	
8	1.66	1.36	0.90	1.08	0.50	0.91	0.30	0.21	0.04	0.63	0.52	0.45	
9	1.78	2.75	0.78	0.93	0.44	0.72	0.34	0.17	0.04	0.51	0.49	0.40	
10	1.73	2.39	1.55	0.92	0.40	0.81	0.37	0.15	0.04	0.59	0.42	0.35	
11	1.30	2.06	1.68	0.71	0.40	0.66	0.33	0.13	0.04	0.47	0.31	0.28	
12	0.90	1.78	1.43	0.59	0.38	0.47	0.33	0.12	0.04	0.47	0.31	0.23	
13	0.90	1.78	1.43	0.59	0.38	0.47	0.33	0.12	0.04	0.47	0.31	0.23	
14	0.72	1.67	1.30	0.52	0.34	0.44	0.32	0.13	0.04	0.56	0.49	0.23	
15	0.65	1.18	1.07	0.54	0.30	0.58	0.35	0.14	0.04	0.67	0.97	0.20	
16	0.70	0.96	0.88	0.69	0.30	1.01	0.37	0.12	0.04	0.81	1.01	0.17	
17	0.68	1.00	0.89	1.42	0.30	0.81	0.36	0.07	0.04	0.85	0.93	0.15	
18	0.96	1.20	0.99	1.16	0.30	0.68	0.32	0.06	0.04	0.87	1.10	0.15	
19	0.92	0.96	1.36	0.90	0.45	0.55	0.35	0.06	0.07	0.74	1.47	0.14	
20	1.22	1.29	1.60	0.74	0.92	0.45	0.31	0.06	0.10	0.60	1.42	0.13	
21	1.66	0.97	1.41	0.56	0.79	0.37	0.48	0.06	0.07	0.68	1.36	0.80	
22	1.61	0.79	1.37	0.45	0.67	0.31	0.57	0.06	0.10	0.58	1.21	0.05	
23	1.62	0.70	1.52	0.38	0.59	0.45	0.69	0.18	0.13	0.71	1.05	0.03	
24	1.27	0.63	1.57	0.40	0.53	0.40	0.56	0.24	0.13	0.60	0.86	0.03	
25	0.96	0.60	1.46	0.75	0.46	0.30	0.44	0.22	0.09	0.76	0.65	0.03	
26	0.98	0.60	1.54	0.81	0.42	0.31	0.38	0.15	0.14	0.80	0.54	0.03	
27	0.89	0.64	1.80	0.58	0.46	0.30	0.30	0.16	0.17	0.79	0.45	0.03	
28	1.08	0.83	1.65	0.49	0.37	0.34	0.30	0.11	0.20	0.62	0.61	0.03	
29	0.78	1.40	1.40	0.45	0.38	0.44	0.30	0.12	0.24	0.46	0.81	0.37	
30	0.96	1.73	1.73	0.44	0.31	0.35	0.30	0.17	0.27	0.63	0.94	0.55	
31	0.70	1.32	1.32	0.60	0.60	0.00	0.00	0.00	0.00	0.71	0.65	0.65	
Mean	1.20	1.14	1.29	0.79	0.51	0.60	0.35	0.17	0.08	0.58	0.78	0.34	
Min.	0.46	0.57	0.75	0.38	0.30	0.30	0.00	0.00	0.04	0.19	0.31	0.03	
Max.	2.86	2.75	1.80	1.66	0.95	1.07	0.69	0.33	0.27	0.87	1.47	0.80	

Annual Mean : 0.65 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year : 2001		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	82	92	108	149	72	114	64	64	47	61	136	112	
2	78	89	158	159	72	119	64	64	44	57	114	95	
3	96	108	130	131	105	101	64	65	43	55	98	92	
4	159	131	110	112	131	146	64	66	43	59	92	102	
5	468	126	184	96	119	127	64	63	43	67	91	108	
6	393	124	160	85	107	108	67	64	43	74	102	96	
7	255	179	199	232	99	92	69	59	43	79	96	87	
8	193	210	147	184	90	111	64	59	43	98	82	81	
9	232	186	125	147	82	126	64	56	43	95	84	77	
10	252	443	111	128	76	104	67	53	43	83	81	72	
11	243	366	214	127	72	114	70	51	43	91	74	68	
12	177	301	235	103	72	98	66	50	43	91	69	62	
13	125	252	196	91	71	79	66	49	43	79	64	58	
14	104	234	177	84	67	76	65	50	43	88	81	58	
15	97	160	146	86	64	90	68	51	43	99	133	55	
16	102	132	123	101	64	138	70	49	43	114	138	53	
17	100	137	136	195	64	114	69	46	43	119	128	51	
18	132	163	124	158	64	100	65	45	43	121	150	51	
19	127	132	186	125	77	87	68	45	46	107	202	51	
20	166	176	222	107	127	77	64	45	48	92	195	50	
21	232	133	193	88	112	70	80	45	46	100	186	113	
22	224	112	187	77	99	64	89	45	48	90	165	44	
23	225	102	210	71	91	77	101	54	50	103	143	43	
24	173	95	218	72	85	72	88	59	50	92	120	43	
25	132	92	201	108	78	64	76	57	47	109	97	43	
26	135	92	213	114	74	64	71	51	51	113	86	43	
27	124	96	255	90	78	64	64	52	53	112	77	43	
28	147	117	230	81	70	67	64	48	55	94	93	43	
29	111	-	192	77	71	76	64	49	59	78	114	70	
30	132	-	243	76	64	68	64	53	61	95	130	87	
31	102	163	178	-	92	-	41	41	-	103	-	97	
Mean	172	163	178	115	84	94	68	53	47	91	114	69	
Min.	78	89	108	71	64	64	41	41	41	43	55	64	
Max.	468	443	255	232	131	146	101	66	61	121	202	113	

Annual Mean : 104 (m<sup>3</sup>/sec) Annual Total : 3,267 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.57	1.48	1.14	1.45	0.25	0.09	0.07	0.04	0.04	0.04	0.04	0.05
2	0.62	1.68	0.97	1.54	0.25	0.09	0.04	0.04	0.04	0.04	0.04	0.05
3	0.59	1.66	0.81	1.28	0.25	0.52	0.04	0.04	0.04	0.04	0.04	0.05
4	0.66	1.78	0.67	1.19	0.25	0.64	0.04	0.04	0.04	0.04	0.04	0.05
5	0.56	1.60	0.55	1.25	0.25	0.50	0.04	0.04	0.04	0.04	0.04	0.13
6	0.78	1.64	0.52	1.03	0.24	0.43	0.04	0.04	0.04	0.04	0.04	0.30
7	0.68	1.58	0.66	0.87	0.25	0.35	0.04	0.04	0.04	0.04	0.04	0.45
8	0.57	1.65	0.55	0.76	0.27	0.29	0.02	0.04	0.04	0.04	0.04	0.45
9	0.49	1.94	0.48	0.63	0.29	0.25	0.02	0.04	0.04	0.04	0.04	0.95
10	0.39	2.90	0.51	0.55	0.38	0.21	0.02	0.04	0.04	0.04	0.04	0.85
11	0.32	2.50	0.80	0.48	0.60	0.17	0.02	0.04	0.04	0.04	0.04	1.09
12	0.25	2.48	0.88	0.41	0.69	0.16	0.02	0.04	0.04	0.04	0.04	1.10
13	0.26	2.54	0.91	0.65	0.50	0.09	0.02	0.04	0.04	0.04	0.04	0.78
14	0.65	2.45	0.91	0.61	0.40	0.09	0.02	0.04	0.04	0.04	0.04	0.74
15	1.32	2.74	0.97	0.48	0.32	0.09	0.02	0.04	0.04	0.04	0.04	0.72
16	1.06	2.22	1.11	0.54	0.26	0.09	0.06	0.04	0.04	0.04	0.04	0.70
17	0.90	1.77	1.38	0.71	0.22	0.09	0.08	0.04	0.04	0.04	0.38	0.66
18	1.06	2.09	1.54	0.67	0.20	0.09	0.16	0.04	0.04	0.04	0.19	0.62
19	1.51	2.52	1.70	0.49	0.20	0.09	0.14	0.04	0.04	0.04	0.08	0.60
20	1.48	1.95	1.77	0.67	0.17	0.09	0.16	0.04	0.04	0.04	0.10	0.59
21	1.42	1.54	1.65	0.68	0.15	0.19	0.10	0.04	0.04	0.04	0.05	0.51
22	1.72	1.91	1.35	0.54	0.15	0.18	0.06	0.04	0.04	0.04	0.11	0.48
23	1.56	1.68	1.12	0.41	0.15	0.10	0.07	0.04	0.04	0.04	0.22	0.63
24	1.22	1.50	1.66	0.35	0.12	0.07	0.04	0.04	0.04	0.04	0.12	1.08
25	1.15	1.29	1.42	0.43	0.09	0.07	0.04	0.04	0.04	0.04	0.12	1.09
26	1.37	1.11	1.55	0.52	0.09	0.07	0.04	0.04	0.04	0.04	0.11	1.24
27	1.15	1.05	1.99	0.40	0.09	0.07	0.04	0.04	0.04	0.04	0.05	1.20
28	0.98	1.32	2.03	0.33	0.09	0.07	0.04	0.04	0.04	0.04	0.05	1.09
29	1.12		1.46	0.29	0.09	0.07	0.04	0.04	0.04	0.04	0.05	1.02
30	2.15		1.46	0.25	0.09	0.07	0.04	0.04	0.04	0.04	0.05	0.99
31	1.72		1.37	0.09	0.09	0.09	0.04	0.04	0.04	0.04	0.05	1.11
Mean	0.98	1.88	1.16	0.68	0.24	0.18	0.05	0.04	0.04	0.04	0.08	0.69
Min.	0.25	1.05	0.48	0.25	0.09	0.07	0.02	0.04	0.04	0.04	0.04	0.05
Max.	2.15	2.90	2.03	1.54	0.69	0.64	0.16	0.04	0.04	0.04	0.38	1.24

Annual Mean : 0.50 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Mean												
Min.												
Max.												

Annual Mean : (m<sup>3</sup>/sec)

Annual Total : (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT JARUM STATION

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	2003												( Gauge Reading, Unit : m )			
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	Min.	Max.
1	1.17	1.69	1.57	1.46	1.33	0.41	0.03	0.03	0.03	0.03	0.03	0.03	0.50			
2	0.96	1.28	1.28	1.17	1.18	0.33	0.03	0.03	0.03	0.03	0.03	0.03	0.94			
3	1.18	1.16	1.75	1.01	0.98	0.28	0.03	0.03	0.03	0.03	0.03	0.03	1.28			
4	1.78	0.96	1.76	0.74	0.84	0.23	0.03	0.03	0.03	0.03	0.03	0.03	1.17			
5	1.48	0.99	3.07	0.60	0.94	0.19	0.03	0.03	0.03	0.03	0.03	0.03	1.29			
6	1.18	0.92	2.24	0.48	0.75	0.14	0.03	0.03	0.03	0.03	0.03	0.03	1.12			
7	0.91	1.85	1.45	0.42	0.64	0.09	0.03	0.03	0.03	0.03	0.03	0.03	0.93			
8	0.66	2.22	1.57	0.40	0.50	0.05	0.03	0.03	0.03	0.03	0.03	0.03	1.20			
9	0.64	1.97	1.36	0.40	0.86	0.05	0.03	0.03	0.03	0.03	0.03	0.03	2.06			
10	0.63	1.42	1.14	0.40	0.74	0.06	0.03	0.03	0.03	0.03	0.03	0.03	1.61			
11	0.58	1.20	1.04	0.40	0.72	0.17	0.03	0.03	0.03	0.03	0.03	0.03	1.06			
12	0.53	1.14	1.15	0.54	1.10	0.22	0.03	0.03	0.03	0.03	0.03	0.03	0.92			
13	0.50	1.26	1.11	0.46	0.98	0.20	0.03	0.03	0.03	0.03	0.03	0.03	0.80			
14	0.50	1.35	1.04	0.45	0.89	0.14	0.03	0.03	0.03	0.03	0.03	0.03	0.74			
15	0.50	1.30	0.95	1.01	1.01	0.09	0.03	0.03	0.03	0.03	0.03	0.03	0.68			
16	0.50	1.41	0.93	0.91	0.87	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.60			
17	0.48	1.48	1.39	0.78	0.73	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.54			
18	0.42	1.81	1.19	0.68	0.57	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.47			
19	0.36	1.62	1.06	0.50	0.49	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.77			
20	0.40	1.72	0.90	0.43	0.44	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.18			
21	0.47	1.57	0.74	0.40	0.40	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.34			
22	0.54	1.41	1.96	0.50	0.40	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.08			
23	1.12	1.40	1.30	0.96	0.40	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.54			
24	0.95	1.24	1.05	0.84	0.49	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.47			
25	0.88	1.94	1.27	0.70	0.55	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.06			
26	0.78	1.40	0.94	0.64	0.49	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.90			
27	1.17	3.56	1.04	0.65	0.41	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.79			
28	1.08	2.56	0.85	0.55	0.40	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.69			
29	1.15		0.75	0.46	0.47	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.75			
30	1.37		1.12	0.42	0.46	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.43			
31	1.33		1.08	0.47	0.47	0.03	0.03	0.03	0.03	0.03	0.03	0.03	1.16			
Mean	0.85	1.57	1.29	0.65	0.69	0.10	0.03	0.03	0.03	0.03	0.03	0.03	1.03			
Min.	0.36	0.92	0.74	0.40	0.40	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.47			
Max.	1.78	3.56	3.07	1.46	1.33	0.41	0.03	0.03	0.03	0.03	0.03	0.03	2.06			
Annual Mean :	0.55 (m)												Annual Total : (10 <sup>6</sup> m <sup>3</sup> )			

Note : " " : No data is available



**OBSERVED DAILY WATER LEVEL AT JARUM STATION**

Basin : Upper Solo  
 River : Dengkeng  
 Zero Gauge (SHVP) : 91.64 m  
 Catchment Area : 833 km<sup>2</sup>  
 Operated by : PBS

Year	2004												Annual Mean :		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(m <sup>3</sup> /sec)	(10 <sup>6</sup> m <sup>3</sup> )	(m <sup>3</sup> /sec)
Day 1	0.96	1.20	0.94	0.86	0.46	0.38	0.45	0.28	0.32	0.00	0.00	0.92			
2	0.76	1.22	0.88	0.78	0.46	0.37	0.39	0.28	0.27	0.00	0.00	1.37			
3	0.63	1.16	0.85	0.69	0.46	0.32	0.39	0.28	0.31	0.00	0.00	1.67			
4	0.64	1.65	1.02	0.72	0.44	0.30	0.39	0.28	0.23	0.00	0.00	2.83			
5	1.00	1.62	1.13	0.68	0.37	0.30	0.35	0.28	0.16	0.00	0.00	1.28			
6	0.66	1.38	1.23	0.64	0.34	0.38	0.42	0.28	0.17	0.00	0.00	1.00			
7	0.73	1.10	1.46	0.51	0.34	0.36	0.37	0.28	0.10	0.00	0.00	0.82			
8	0.86	0.85	1.42	0.45	0.32	0.36	0.36	0.32	0.05	0.00	0.00	0.72			
9	0.86	0.85	1.42	0.45	0.32	0.36	0.39	0.36	0.05	0.00	0.00	0.52			
10	0.97	0.74	1.33	0.41	0.36	0.35	0.50	0.30	0.05	0.00	0.00	0.33			
11	0.83	0.95	1.21	0.36	0.34	0.38	0.58	0.29	0.05	0.00	0.00	0.35			
12	0.71	0.95	1.48	0.35	0.34	0.36	0.69	0.29	0.05	0.00	0.00	0.30			
13	0.62	1.06	1.76	0.38	0.34	0.36	0.77	0.29	0.00	0.00	0.00	0.23			
14	0.56	1.23	1.48	0.40	0.41	0.32	0.63	0.29	0.00	0.00	0.00	0.33			
15	0.62	1.09	1.35	0.41	0.44	0.34	0.53	0.26	0.00	0.00	0.00	0.40			
16	0.80	1.69	1.38	0.39	0.40	0.36	0.46	0.26	0.00	0.00	0.00	0.20			
17	0.71	1.53	1.26	0.41	0.38	0.36	0.42	0.31	0.00	0.00	0.00	0.57			
18	0.58	1.34	1.12	0.45	0.34	0.38	0.36	0.34	0.00	0.00	0.00	0.30			
19	0.49	1.15	0.95	0.42	0.43	0.38	0.40	0.29	0.00	0.00	0.00	0.88			
20	0.44	1.10	0.84	0.43	0.37	0.39	0.46	0.28	0.00	0.00	0.00	0.75			
21	1.18	2.27	0.76	0.43	0.34	0.37	0.42	0.28	0.00	0.00	0.00	1.10			
22	1.29	2.06	0.65	0.39	0.34	0.35	0.38	0.28	0.00	0.00	0.08	1.50			
23	1.41	1.86	0.60	0.38	0.34	0.41	0.39	0.26	0.00	0.00	0.74	1.70			
24	1.43	1.64	0.57	0.40	0.34	0.40	0.43	0.26	0.00	0.00	1.00	1.57			
25	1.15	1.42	0.54	0.49	0.34	0.43	0.38	0.27	0.00	0.00	0.48	1.90			
26	0.99	1.38	0.51	0.42	0.34	0.42	0.37	0.28	0.00	0.00	0.40	2.10			
27	2.54	1.49	0.47	0.41	0.34	0.37	0.45	0.26	0.00	0.00	0.34	1.42			
28	1.55	1.27	0.47	0.40	0.39	0.38	0.42	0.28	0.00	0.00	0.30	2.78			
29	1.07	1.07	0.43	0.41	0.40	0.36	0.36	0.28	0.00	0.00	0.72	1.90			
30	1.72		0.43	0.46	0.34	0.38	0.32	0.28	0.00	0.00	0.98	1.69			
31	1.31		0.00		0.34	0.30	0.30	0.28	0.00	0.00	1.16				
Mean	0.96	1.33	0.97	0.48	0.37	0.37	0.44	0.29	0.06	0.00	0.17	1.12			
Min.	0.44	0.74	0.00	0.35	0.32	0.30	0.30	0.26	0.00	0.00	0.00	0.20			
Max.	2.54	2.27	1.76	0.86	0.46	0.43	0.77	0.36	0.32	0.00	1.00	2.83			
Annual Mean :	0.55 (m)												(m <sup>3</sup> /sec)	(10 <sup>6</sup> m <sup>3</sup> )	

Note : " " : No data is available

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year : 1976		(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	3.91	3.36	4.34	2.33	1.05	0.80			0.09	0.25	0.66	1.92	
2	3.32	2.64	5.14	2.96	1.03	0.81			0.05	0.25	0.66	2.28	
3	3.34	2.68	5.26	3.00	1.02	0.81		1.19	0.02	0.25	0.66	1.39	
4	3.31	2.17	5.32	3.34	0.99	0.81		1.14	0.01	0.08	0.66	0.80	
5	4.39	2.16	5.34	3.41	0.95	0.80		1.12	0.01	0.10	0.66	0.48	
6	4.37	2.15	5.28	3.81	1.75	0.80		1.11	0.01	0.12	0.66	0.56	
7	4.52	1.98	4.45	4.15	1.49	0.80		1.10	0.01	0.10	0.66	0.49	
8	4.33	1.90	2.58	4.27	1.84	0.80		1.10	0.01	0.10	0.21	0.40	
9	4.33	2.01	3.32	3.85	1.66	0.80		0.83	0.01	0.08	0.20	0.60	
10	4.14	2.04	4.75	2.67	1.36	0.81		0.70	0.01	0.02	0.19	0.76	
11	4.14	2.89	4.73	2.07	1.22	0.81		0.70	0.01	0.02	0.19	1.37	
12	4.17	3.05	4.64	1.63	1.11	0.81		0.70	0.01	0.02	0.20	1.40	
13	4.52	3.03	4.74	1.42	1.10	0.80		0.70	0.01	0.02	0.20	1.40	
14	4.11	2.62	2.39	1.63	1.10	0.80		0.70	0.01	0.12	0.25	1.11	
15	4.15	1.92	2.38	1.68	1.10	0.81		0.70	0.01	0.24	0.26	1.26	
16	4.29		2.02	2.06	1.10	0.81		0.70	0.01	0.65	0.39	1.26	
17	4.52		2.10	2.18	0.60	0.81		0.70	0.01	1.28	0.31	0.96	
18	4.58		2.10	2.01	0.60	0.81		0.70	0.01	1.80	0.53	0.77	
19	4.92		2.10	1.79	0.60	0.81		0.70	0.01	1.00	0.47	0.63	
20	4.99		2.10	1.47	0.60	0.80		0.70	0.01	0.51	0.61	0.50	
21	4.73		2.10	2.23	0.60	0.80		0.70	0.01	0.41	0.51		
22	4.17		2.10	1.81	0.60	0.80		0.70	0.01	0.22	2.37		
23	3.92		2.50	1.46	0.60	0.80		0.70	0.01	0.19	2.59		
24	4.13		2.50	1.25	0.77	0.80		0.70	0.01	0.10	2.34		
25	4.20		2.50	1.32	0.85	0.80		0.70	0.01	0.26	2.18		
26	3.65		2.49	1.46	0.85	0.80		0.70	0.01	0.25	2.42		
27	3.90		2.23	1.40	0.85	0.80		0.71	0.25	0.58	2.49		
28	2.89		3.94	1.31	0.81	0.80		0.81	0.25	0.65	2.49		
29	2.60		3.33	1.19	0.72	0.80		0.83	0.25	0.63	1.60		
30	2.58		2.80	1.11	0.72	0.80		0.75	0.25	0.81	1.60		
31	2.57		2.23	-	0.72	-		0.74	-	1.98	-		
Mean	3.99		3.35	2.21	0.98	0.80			0.05	0.42	0.97		
Min.	2.57		2.02	1.11	0.60	0.80			0.01	0.02	0.19		
Max.	4.99		5.34	4.27	1.84	0.81			0.25	1.98	2.59		
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year : 1976		(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	475	344	591	156	25	12			0.5	0.1	7.2	101.8	
2	336	205	843	263	24	13			0.8	0.1	7.2	149.0	
3	340	212	884	270	23	13		33.6	1.2	0.1	7.2	48.6	
4	334	134	905	340	21	13		30.2	1.3	0.5	7.2	12.2	
5	606	132	912	355	19	12		29.0	1.3	0.4	7.2	2.6	
6	600	131	891	450	83	12		28.3	1.3	0.2	7.2	4.4	
7	644	109	624	539	57	12		27.7	1.3	0.4	7.2	2.8	
8	589	99	195	572	92	12		27.7	1.3	0.4	0.0	1.3	
9	589	113	336	460	73	12		13.5	1.3	0.5	0.0	5.4	
10	536	117	715	210	46	13		8.5	1.3	1.2	0.0	10.7	
11	536	249	708	120	36	13		8.5	1.3	1.2	0.0	47.0	
12	544	280	681	70	28	13		8.5	1.3	1.2	0.0	49.4	
13	644	276	712	51	28	12		8.5	1.3	1.2	0.0	49.4	
14	528	202	165	70	28	12		8.5	1.3	0.2	0.1	28.3	
15	539	102	164	75	28	13		8.5	1.3	0.0	0.1	38.5	
16	577		114	119	28	13		8.5	1.3	6.9	1.2	38.5	
17	644		124	135	5	13		8.5	1.3	40.0	0.4	19.7	
18	662		124	113	5	13		8.5	1.3	88.0	3.7	11.0	
19	769		124	87	5	13		8.5	1.3	21.9	2.4	6.2	
20	792		124	55	5	12		8.5	1.3	3.2	5.7	3.0	
21	708		124	142	5	12		8.5	1.3	1.5	3.2		
22	544		124	89	5	12		8.5	1.3	0.0	162.2		
23	478		182	54	5	12		8.5	1.3	0.0	196.8		
24	533		182	38	11	12		8.5	1.3	0.4	157.7		
25	552		182	43	14	12		8.5	1.3	0.1	135.0		
26	411		181	54	14	12		8.5	1.3	0.1	169.8		
27	472		142	49	14	12		8.8	0.1	4.9	180.7		
28	249		483	42	13	12		12.7	0.1	6.9	180.7		
29	198		338	34	9	12		13.5	0.1	6.2	67.3		
30	195		233	28	9	12		10.3	0.1	12.7	67.3		
31	194		142	-	9	-		9.9	-	109.0	-		
Mean	510		395	170	25	12			1.1	10.0	46.1		
Min.	194		114	28	5	12			0.1	0.0	0.0		
Max.	792		912	572	92	13			1.3	109.0	196.8		
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	1977													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	Max.
1	1.18	2.78	4.38	2.65	2.78	1.03	0.30	0.01	0.00	0.10	0.10	2.01	0.10	0.10
2	0.73	1.93	3.11	2.04	1.93	1.03	0.30	0.01	0.00	0.10	0.10	2.56	0.10	0.10
3	0.47	2.13	3.09	3.34	0.87	2.44	0.30	0.01	0.00	0.10	0.10	1.85	0.10	0.10
4	0.43	2.09	4.75	2.29	0.64	2.47	0.27	0.01	0.00	0.10	0.08	0.89	0.08	0.08
5	0.76	1.94	3.95	1.62	0.57	1.76	0.24	0.01	0.00	0.10	0.05	0.56	0.05	0.05
6	1.37	2.23	3.60	1.65	0.52	2.15	0.21	0.01	0.00	0.10	0.04	0.36	0.04	0.04
7	1.24	2.78	3.05	2.13	0.43	2.10	0.20	0.01	0.00	0.10	0.10	0.48	0.10	0.10
8	0.90	3.06	3.16	3.53	0.35	3.69	0.20	0.01	0.00	0.10	0.10	2.21	0.10	0.10
9	1.56	2.54	4.01	3.83	0.37	2.98	0.18	0.01	0.00	0.10	0.10	1.38	0.10	0.10
10	2.07	2.60	3.71	3.28	1.71	3.06	0.16	0.01	0.00	0.10	0.02	1.50	0.02	0.02
11	1.46	3.88	3.63	4.28	1.11	2.33	0.16	0.01	0.00	0.10	0.04	1.51	0.04	0.04
12	0.90	3.89	3.68	2.99	0.73	2.91	0.16	0.01	0.00	0.10	0.08	2.43	0.08	0.08
13	0.67	2.97	3.41	1.79	0.52	2.37	0.16	0.01	0.00	0.10	0.04	1.46	0.04	0.04
14	0.76	3.08	3.62	1.20	0.45	1.50	0.15	0.01	0.00	0.10	0.03	0.72	0.03	0.03
15	0.58	2.96	2.56	0.88	0.98	1.15	0.15	0.01	0.00	0.10	0.01	0.40	0.01	0.01
16	0.49	2.91	2.02	0.70	0.54	0.88	0.10	0.01	0.00	0.10	0.17	0.36	0.17	0.17
17	0.66	2.32	2.42	0.54	0.39	0.72	0.10	0.01	0.00	0.10	0.13	0.41	0.13	0.13
18	0.48	1.87	1.92	0.55	0.31	0.67	0.10	0.01	0.00	0.10	0.19	0.28	0.19	0.19
19	2.07	1.79	1.55	0.52	0.30	0.58	0.10	0.01	0.00	0.10	0.16	0.36	0.16	0.16
20	4.00	2.93	2.16	0.52	0.24	0.50	0.10	0.01	0.00	0.10	0.19	0.28	0.19	0.19
21	4.26	3.27	1.73	3.06	0.24	0.55	0.05	0.01	0.00	0.10	0.15	0.16	0.15	0.15
22	4.11	3.09	2.06	0.91	0.20	1.08	0.04	0.01	0.00	0.10	0.11	0.10	0.11	0.11
23	4.23	2.96	3.05	4.28	0.20	1.81	0.04	0.01	0.00	0.10	0.75	0.20	0.75	0.75
24	4.41	3.32	3.78	3.26	1.48	1.49	0.04	0.01	0.00	0.10	0.82	0.32	0.82	0.82
25	4.31	3.76	2.58	3.54	1.53	1.11	0.04	0.01	0.00	0.10	0.83	0.58	0.83	0.83
26	4.26	3.07	2.31	2.28	1.05	0.69	0.04	0.01	0.00	0.10	1.40	1.47	1.40	1.40
27	4.68	3.47	2.33	1.96	2.25	0.60	0.04	0.01	0.00	0.10	0.89	1.60	0.89	0.89
28	2.40	4.05	2.53	1.61	1.49	0.50	0.02	0.01	0.00	0.10	0.44	1.08	0.44	0.44
29	1.65	-	1.87	1.30	0.92	0.41	0.01	0.01	0.00	0.10	0.23	1.18	0.23	0.23
30	1.85	-	2.02	1.68	1.83	0.34	0.01	0.01	0.00	0.10	0.20	0.60	0.20	0.20
31	3.03	-	2.58	-	1.50	-	0.01	0.01	-	0.10	-	3.08	-	-
Mean	2.00		2.92	2.14	0.92	1.50	0.13	0.01	0.00	0.10	0.26	1.04	0.26	0.26
Min.	0.43		1.55	0.52	0.20	0.34	0.01	0.01	0.00	0.10	0.01	0.10	0.01	0.01
Max.	4.68		4.75	4.28	2.78	3.69	0.30	0.01	0.00	0.10	1.40	3.08	1.40	1.40
Annual Mean :	(m)												(m)	
Annual Mean :	(m <sup>3</sup> /sec)												(10 <sup>6</sup> m <sup>3</sup> )	
Annual Total :														

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	1977													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	Max.
1	40	725	250	277	29	29	0.5	1.4	1.6	0.4	0.4	136.5	0.4	0.4
2	12	352	141	125	29	29	0.5	1.4	1.6	0.4	0.4	231.7	0.4	0.4
3	3	155	347	410	19	209	0.5	1.4	1.6	0.4	0.4	113.5	0.4	0.4
4	2	149	859	182	8	214	0.2	1.4	1.6	0.4	0.5	20.1	0.4	0.5
5	13	126	584	84	6	102	0.1	1.4	1.6	0.4	0.9	5.6	0.4	0.9
6	57	172	480	88	4	158	0.0	1.4	1.6	0.4	1.0	1.1	0.4	1.0
7	45	277	338	155	2	150	0.0	1.4	1.6	0.4	0.4	3.4	0.4	0.4
8	21	340	364	461	1	506	0.0	1.4	1.6	0.4	0.4	168.2	0.4	0.4
9	77	228	603	547	1	321	0.0	1.4	1.6	0.4	0.4	58.2	0.4	0.4
10	146	240	512	394	95	340	0.0	1.4	1.6	0.4	1.2	70.6	0.4	1.2
11	66	562	489	691	35	189	0.0	1.4	1.6	0.4	1.0	71.7	0.4	1.0
12	21	565	503	324	12	305	0.0	1.4	1.6	0.4	1.0	206.9	0.4	1.0
13	9	319	428	105	4	196	0.0	1.4	1.6	0.4	0.5	66.4	0.4	0.5
14	13	345	486	42	3	71	0.1	1.4	1.6	0.4	1.1	11.5	0.4	1.1
15	6	317	232	19	26	38	0.1	1.4	1.6	0.4	1.4	1.8	0.4	1.4
16	4	305	138	11	5	19	0.4	1.4	1.6	0.4	0.0	1.1	0.4	0.0
17	9	187	205	5	2	11	0.4	1.4	1.6	0.4	0.2	1.9	0.4	0.2
18	3	116	123	5	1	9	0.4	1.4	1.6	0.4	0.0	0.3	0.4	0.0
19	146	105	76	4	0	6	0.4	1.4	1.6	0.4	0.0	1.1	0.4	0.0
20	599	310	160	4	0	4	0.4	1.4	1.6	0.4	0.0	0.3	0.4	0.0
21	684	392	98	340	0	5	0.9	1.4	1.6	0.4	0.1	0.0	0.3	0.1
22	635	347	144	21	0	33	1.0	1.4	1.6	0.4	0.3	0.4	0.3	0.4
23	674	317	338	691	0	108	1.0	1.4	1.6	0.4	12.8	0.0	12.8	0.0
24	736	404	532	389	68	70	1.0	1.4	1.6	0.4	16.2	0.7	16.2	0.7
25	701	526	236	463	74	35	1.0	1.4	1.6	0.4	16.8	6.2	16.8	6.2
26	684	342	185	180	30	10	1.0	1.4	1.6	0.4	60.2	67.4	60.2	67.4
27	833	444	189	129	175	7	1.0	1.4	1.6	0.4	20.1	81.8	20.1	81.8
28	201	615	226	83	70	4	1.2	1.4	1.6	0.4	2.5	32.5	2.5	32.5
29	88	-	116	51	22	2	1.4	1.4	1.6	0.4	0.1	40.3	0.1	40.3
30	114	-	138	91	111	1	1.4	1.4	1.6	0.4	0.0	6.8	0.0	6.8
31	333	-	236	-	71	-	1.4	1.4	-	0.4	-	344.7	-	344.7
Mean	225		337	212	40	106	0.5	1.4	1.6	0.4	4.7	56.5	0.5	4.7
Min.	2		76	4	0	1	0.0	1.4	1.6	0.4	0.0	0.0	0.0	0.0
Max.	833		859	691	277	506	1.4	1.4	1.6	0.4	60.2	344.7	1.4	60.2
Annual Mean :	(m <sup>3</sup> /sec)												(10 <sup>6</sup> m <sup>3</sup> )	
Annual Total :														

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year : 1978		( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1		2.61	2.00	2.56	2.67	1.48	3.61	1.80	1.86	1.00	1.07	2.10	
2		2.15	2.36	1.88	2.10	1.45	3.75	1.66	1.79	0.93	1.10	1.05	
3		2.94	3.13	1.53	1.80	1.74	3.78	1.74	1.78	0.90	1.10	2.30	
4		2.16	3.70	1.66	1.72	1.39	3.68	1.75	3.83	0.88	5.20	3.25	
5		2.79	3.38	1.51	1.72	2.56	3.69	1.73	3.91	1.59	4.99	4.80	
6		3.38	1.88	0.75	1.68	2.57	3.79	1.59	3.36	1.20	2.80	2.60	
7		3.38	2.21	0.70	1.65	2.50	3.57	1.60	2.85	1.06	2.78	2.19	
8		3.10	2.46	1.32	1.63	2.49	3.46	1.49	2.75	1.06	2.46	3.64	
9		2.56	2.51	3.03	1.34	2.38	3.32	1.41	2.23	0.99	2.72	2.83	
10		3.74	1.93	2.68	1.23	2.36	2.96	1.36	2.65	0.99	3.13	3.18	
11		3.12	2.63	2.43	1.29	2.42	2.66	1.30	2.77	0.99	2.00	4.42	
12		2.85	1.69	2.14	1.15	2.12	2.70	1.19	2.37	0.98	1.87	2.91	
13		2.19	2.66	3.22	1.25	1.37	3.03	1.11	2.24	0.96	1.83	3.46	
14		2.02	3.59	2.43	1.17	2.02	2.91	0.98	2.15	0.93	2.00	2.95	
15		1.51	2.94	1.99	1.29	2.25	2.67	0.95	2.36	0.93	2.20	2.54	
16		2.89	4.29	1.74	2.82	2.03	2.52	0.97	2.16	0.81	2.02	1.98	
17		2.92	3.95	0.89	3.01	2.11	1.95	1.80	2.16	0.79	2.03	1.69	
18		1.94	1.97	1.11	2.83	6.59	1.66	2.01	1.44	0.77	2.17	2.67	
19		1.33	1.65	1.48	2.73	6.80	1.55	1.68	1.08	0.95	2.08	2.77	
20		3.97	3.53	1.35	2.67	3.08	1.54	2.07	2.08	0.93	2.30	3.30	
21		4.80	3.36	1.80	2.74	2.77	1.53	3.27	1.08	0.93	2.28	3.47	
22		5.30	4.41	1.63	1.41	2.74	1.50	3.32	1.16	0.92	2.27	3.44	
23		4.92	3.77	0.95	1.75	2.70	1.50	2.94	1.28	1.30	2.27	3.44	
24		2.41	2.62	0.66	1.68	2.66	2.13	1.61	1.13	1.63	2.26	1.60	
25		1.57	0.93	0.63	1.54	2.77	1.17	1.65	1.14	1.74	2.24	1.90	
26		1.47	0.96	0.83	1.63	3.27	1.17	1.68	1.13	1.70	2.11	1.82	
27		3.28	1.24	0.77	1.44	3.28	1.17	1.71	1.12	1.93	1.20	1.96	
28		3.28	0.86	1.41	1.44	3.32	1.16	1.72	1.11	3.36	1.20	2.26	
29		-	1.45	1.58	2.46	3.21	1.15	1.70	1.10	1.97	0.87	2.54	
30		-	1.50	0.94	1.20	3.57	1.14	1.74	1.08	2.39	0.90	3.35	
31		-	2.30	-	1.12	-	1.13	2.01	-	2.24	-	3.82	
Mean		2.88	2.50	1.59	1.81	2.72	2.37	1.73	1.97	1.28	2.22	2.78	
Min.		1.33	0.86	0.63	1.12	1.37	1.13	0.95	1.08	0.77	0.87	1.05	
Max.		5.30	4.41	3.22	3.01	6.80	3.79	3.32	3.91	3.36	5.20	4.80	
Annual Mean :	(m)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year : 1978		( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1		242	135	232	254	68	483	107	115	27	32	150	
2		158	194	118	150	65	523	89	105	22	34	30	
3		312	357	74	107	60	532	99	104	21	150	184	
4		160	509	89	96	59	503	100	547	19	1,037	386	
5		279	420	72	96	232	506	98	571	81	952	878	
6		420	118	13	91	234	535	81	415	42	281	240	
7		420	168	11	88	220	472	82	292	31	277	165	
8		349	213	52	85	218	441	70	270	31	213	491	
9		232	222	333	54	198	404	61	172	26	264	288	
10		520	125	256	44	194	317	56	250	26	357	369	
11		354	189	207	50	205	252	51	275	26	135	739	
12		292	93	157	38	154	260	41	196	26	116	305	
13		165	252	379	46	57	333	35	173	24	111	441	
14		138	477	207	39	138	305	26	158	22	135	314	
15		72	312	134	50	175	254	24	194	22	167	228	
16		301	694	99	285	140	224	25	160	16	138	132	
17		308	584	20	328	152	128	107	160	15	140	93	
18		126	131	35	288	1,693	89	136	64	14	162	254	
19		53	88	68	266	1,806	76	91	33	24	147	275	
20		590	461	55	254	345	75	146	147	22	184	399	
21		878	415	107	268	275	74	392	33	22	180	444	
22		1,079	736	85	61	268	71	404	39	22	178	436	
23		924	529	24	100	260	71	312	49	51	178	436	
24		203	244	9	91	252	155	83	36	85	177	82	
25		78	22	8	75	275	39	88	37	99	173	120	
26		67	24	17	85	392	39	91	36	94	152	109	
27		394	45	14	64	394	39	95	36	125	42	129	
28		394	18	61	64	404	39	96	35	415	42	177	
29		-	65	80	213	376	38	94	34	131	19	228	
30		-	71	23	42	472	37	99	33	200	21	412	
31		-	184	-	36	-	36	136	-	173	-	544	
Mean		340	261	101	123	326	237	110	159	63	206	306	
Min.		53	18	8	36	57	36	24	33	14	19	30	
Max.		1,079	736	379	328	1,806	535	404	571	415	1,037	878	
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year : 1979		(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	4.23	1.64	3.08	2.72	2.65	4.37	1.40	0.80	0.70	0.83	1.30	1.54	
2	4.09	2.61	2.93	2.44	3.50	3.62	1.16	0.80	0.70	0.95	1.06	1.80	
3	4.89	3.66	3.82	3.81	4.31	2.40	1.07	0.80	0.69	1.02	1.15	1.67	
4	3.12	3.77	2.91	4.04	3.95	2.27	1.01	0.79	0.68	0.91	1.54	2.12	
5	2.88	3.43	2.63	5.40	5.70	2.62	0.90	0.79	0.68	0.94	2.46	3.27	
6	2.63	2.56	4.02	5.31	6.20	2.21	0.88	0.79	0.68	1.06	2.30	3.23	
7	1.83	3.20	5.91	5.10	3.75	2.15	0.90	0.87	0.68	1.16	1.21	2.95	
8	2.08	4.07	4.51	3.65	3.28	1.75	0.90	0.89	0.68	0.88	3.47	2.33	
9	2.97	3.96	3.18	3.15	4.40	2.10	0.91	0.90	0.68	0.80	2.19	1.59	
10	3.27	3.67	3.67	4.28	3.66	2.45	1.28	0.81	0.68	0.73	1.75	1.42	
11	3.98	3.45	3.75	5.13	2.95	1.80	1.36	0.80	0.68	0.72	1.47	1.37	
12	4.29	2.44	3.73	4.15	2.15	1.58	1.28	0.80	0.68	0.70	1.32	1.18	
13	5.03	2.33	4.85	4.12	1.92	1.38	1.18	0.78	0.68	0.70	2.02	1.17	
14	5.57	4.02	5.01	4.72	1.68	1.25	1.08	0.78	0.68	0.70	4.12	1.03	
15	4.02	3.27	4.56	4.78	1.72	1.07	1.05	0.77	0.68	0.70	4.75	1.64	
16	2.56	4.39	3.02	4.35	2.26	1.85	0.98	0.75	0.68	0.70	2.92	1.88	
17	2.77	4.40	2.97	3.30	2.68	1.24	0.89	0.75	0.68	0.70	2.38	1.39	
18	2.67	3.48	2.92	2.79	3.18	1.00	0.87	0.73	0.68	0.70	1.82	1.86	
19	3.23	3.03	2.92	2.67	3.38	1.00	0.86	0.70	0.68	0.70	1.29	2.87	
20	3.08	5.43	3.74	3.93	3.57	0.94	0.85	0.70	0.68	0.70	1.11	2.94	
21	3.57	4.36	3.37	3.23	3.28	0.90	0.83	0.70	0.68	0.70	2.72	2.72	
22	3.20	4.36	2.67	3.39	4.70	0.90	0.82	0.70	0.68	0.70	1.01	2.78	
23	3.85	3.22	3.23	3.56	3.32	0.90	0.80	0.70	0.68	0.77	0.88	2.83	
24	3.32	4.67	3.22	4.29	2.92	0.90	0.80	0.70	0.96	0.91	1.43	3.33	
25	5.04	3.56	2.51	5.09	2.30	1.00	0.83	0.70	0.84	1.04	1.34	3.60	
26	5.30	3.57	3.45	4.33	2.12	1.00	0.79	0.70	0.86	1.04	1.30	4.73	
27	3.42	3.52	4.10	3.03	1.88	1.00	0.79	0.70	0.85	0.89	1.33	4.30	
28	2.39	-	4.90	3.03	2.40	1.12	0.79	0.70	1.15	0.93	1.31	2.82	
29	1.88	-	4.39	2.85	2.33	1.14	0.79	0.70	0.95	1.00	1.54	2.40	
30	1.84	-	3.08	-	1.90	-	0.80	0.70	1.08	-	-	2.27	
31	3.89	3.22	3.64	3.88	3.22	1.66	0.96	0.76	0.73	0.89	-	2.43	
Mean	1.83	1.83	2.51	2.44	1.68	0.90	0.79	0.70	0.68	0.70	1.03	1.03	
Min.	5.57	5.57	5.91	5.40	6.20	4.37	1.40	0.90	1.15	2.27	4.73	4.73	
Max.													
Annual Mean :	(m)												
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year : 1979		(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	584	78	308	238	225	623	53	10.7	6.6	12.2	44	67	
2	546	218	278	189	399	428	33	10.7	6.6	18.6	26	97	
3	777	437	476	474	606	182	26	10.7	6.2	22.9	32	81	
4	316	464	274	533	509	162	22	10.3	5.9	16.3	67	139	
5	268	383	221	942	1,046	220	16	10.3	5.9	18.0	192	348	
6	221	209	528	912	1,231	153	15	10.3	5.9	25.6	166	339	
7	129	302	449	479	1,036	100	14	10.3	5.9	161.7	75	562	
8	100	333	1,122	843	459	144	16	14.2	5.9	32.8	37	282	
9	134	541	663	435	350	90	16	15.2	5.9	14.7	393	171	
10	285	512	329	322	631	136	16	15.8	5.9	10.7	150	72	
11	348	440	489	598	437	191	42	11.2	5.9	7.7	90	55	
12	517	388	459	853	282	97	49	10.7	5.9	7.3	60	50	
13	600	189	454	562	144	71	42	10.7	5.9	6.6	46	34	
14	821	171	764	554	112	51	34	9.8	5.9	6.6	125	34	
15	1,001	814	814	725	82	40	27	9.8	5.9	6.6	554	24	
16	528	348	677	743	87	26	25	9.4	5.9	6.6	734	78	
17	209	628	296	617	160	103	20	8.6	5.9	6.6	276	107	
18	247	631	285	354	230	39	15	8.6	5.9	6.6	179	52	
19	229	395	276	251	329	22	14	7.7	5.9	6.6	99	104	
20	339	298	276	229	372	22	14	6.6	5.9	6.6	43	266	
21	308	953	457	504	416	18	13	6.6	5.9	6.6	29	280	
22	416	620	370	339	350	16	12	6.6	5.9	6.6	22	249	
23	333	620	229	374	719	16	12	6.6	5.9	6.6	22	249	
24	484	337	339	413	359	16	11	6.6	5.9	9.4	15	258	
25	359	710	337	600	276	16	11	6.6	19.2	16.3	56	361	
26	824	413	201	840	166	22	12	6.6	12.7	24.3	48	423	
27	909	416	388	611	139	22	10	6.6	13.7	24.3	44	728	
28	381	404	549	298	107	22	10	6.6	13.2	15.2	47	603	
29	181	-	780	298	182	30	10	6.6	32.0	17.5	45	256	
30	107	-	628	262	171	31	10	6.6	18.6	21.7	67	182	
31	101	-	308	-	109	-	11	6.6	-	27.0	-	162	
Mean	406	406	452	513	378	104	20	9.2	8.4	18.6	216	216	
Min.	100	100	201	189	82	16	10	6.6	5.9	6.6	24	24	
Max.	1,001	1,001	1,122	942	1,231	623	53	15.8	32.0	161.7	728	728	
Annual Mean :	(m <sup>3</sup> /sec)												
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )												

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.81	3.96	2.99	3.33	3.25	1.18	0.73	1.25	0.60	0.69	1.77	4.18
2	3.46	2.91	3.30	2.33	2.53	1.14	0.73	0.97	0.74	0.63	1.32	2.94
3	3.65	3.71	2.54	2.18	2.02	1.13	0.72	0.90	1.05	0.63	1.51	2.69
4	2.52	3.12	2.65	2.85	1.56	1.16	0.72	0.81	0.93	0.93	1.12	2.69
5	2.55	2.17	2.47	2.28	1.48	1.00	0.72	0.78	0.85	0.72	1.90	2.18
6	2.39	2.00	2.19	2.82	1.57	1.00	0.72	0.73	0.75	0.69	1.85	2.70
7	2.05	4.15	3.72	3.32	2.00	0.99	0.71	0.70	0.71	0.67	1.38	2.51
8	1.66	4.73	4.10	2.65	2.48	0.99	0.70	0.71	0.67	0.64	1.27	2.15
9	2.60	3.60	3.72	3.15	2.37	0.97	1.05	0.80	0.61	0.60	1.87	1.89
10	3.69	2.38	3.63	3.67	1.85	0.85	1.11	1.92	0.60	0.57	1.96	2.65
11	5.17	3.23	3.17	2.98	1.50	0.82	1.05	1.38	0.58	0.89	1.90	3.27
12	5.30	3.90	3.14	2.62	1.27	0.80	0.99	1.07	0.52	0.82	1.83	3.10
13	3.33	3.97	2.69	2.03	1.20	0.84	1.00	0.93	0.50	0.74	1.67	2.95
14	2.81	4.65	2.58	2.60	1.15	1.02	1.07	0.70	0.48	1.38	1.52	2.63
15	2.52	4.07	2.40	4.88	1.09	0.87	1.01	0.79	0.46	0.97	1.63	2.15
16	2.02	3.56	2.10	5.02	1.08	0.83	1.91	0.74	0.49	1.00	1.79	2.54
17	3.20	3.70	2.18	5.13	1.06	0.80	1.41	0.79	0.55	1.00	1.38	2.38
18	2.62	2.85	4.38	5.95	0.99	0.84	1.06	1.02	0.51	1.33	2.10	2.90
19	3.63	3.37	4.89	4.37	0.95	1.00	0.94	0.98	0.50	1.08	2.70	1.90
20	2.98	2.95	3.69	3.53	0.93	1.14	0.91	0.93	0.50	0.79	2.04	1.59
21	2.79	2.70	2.50	3.04	0.90	0.98	0.90	0.84	0.50	0.75	2.39	1.37
22	5.78	4.77	2.07	2.38	0.88	0.95	0.85	0.70	0.50	0.78	2.35	1.64
23	5.17	5.48	1.70	1.98	0.80	0.90	0.82	0.63	0.50	0.82	2.25	3.43
24	2.99	4.87	1.70	3.75	0.74	0.84	0.73	0.60	0.50	0.82	2.21	3.45
25	2.91	3.55	3.55	5.15	0.71	0.80	0.69	0.60	0.50	1.22	4.00	3.45
26	3.73	2.80	3.00	3.22	1.26	0.79	0.63	0.58	0.50	1.05	3.68	2.46
27	3.16	2.34	2.10	2.60	1.60	0.76	0.60	0.55	0.60	0.85	4.03	2.77
28	2.22	2.38	2.37	2.60	2.37	0.73	0.70	0.55	1.77	0.84	3.35	1.88
29	3.69	2.25	2.22	3.00	1.48	0.73	1.01	0.54	0.89	1.83	4.86	1.88
30	4.18	-	2.82	3.90	1.28	0.73	0.71	0.54	0.80	1.46	4.18	3.13
31	4.28	-	4.55	-	1.18	-	1.98	0.54	-	2.11	-	3.61
Mean	3.29	3.50	2.94	3.31	1.47	0.92	0.93	0.82	0.66	0.95	2.26	2.61
Min.	1.66	2.00	1.70	1.98	0.71	0.73	0.60	0.54	0.46	0.57	1.12	1.37
Max.	5.78	5.48	4.89	5.95	3.25	1.18	1.98	1.92	1.77	2.11	4.86	4.18

Annual Mean : 1.97 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	254	512	289	361	344	34	7.7	39.9	3.4	6	93	570
2	390	274	354	171	204	31	7.7	19.8	8.1	4	46	223
3	435	449	206	148	125	31	7.3	15.8	24.9	4	64	289
4	202	316	225	262	69	33	7.3	11.2	17.5	17	30	232
5	207	147	194	163	61	22	7.3	9.8	13.2	7	109	148
6	181	122	150	256	70	22	7.3	7.7	8.6	6	103	234
7	129	562	452	359	122	21	7.0	6.6	7.0	6	51	201
8	80	728	549	225	196	21	6.6	7.0	5.5	5	42	144
9	216	423	452	322	177	20	24.9	10.7	3.6	3	105	108
10	444	179	430	440	103	13	29.1	11.8	3.4	3	117	225
11	866	339	326	287	63	12	24.9	51.3	2.8	15	109	348
12	909	497	320	220	42	11	21.0	26.3	1.5	12	100	312
13	361	515	232	127	36	13	21.7	17.5	1.1	8	81	282
14	254	704	213	216	32	23	26.3	6.6	0.8	51	65	221
15	202	541	182	774	28	14	22.3	10.3	0.5	20	77	144
16	125	413	136	818	27	12	110.4	8.1	1.0	22	96	206
17	333	447	148	853	26	11	54.1	10.3	2.1	22	51	179
18	220	262	625	1,137	21	13	25.6	22.9	1.3	47	136	272
19	430	370	777	623	19	22	18.0	20.4	1.1	27	234	109
20	287	282	444	406	17	31	16.3	17.5	1.1	10	128	72
21	251	234	199	300	16	20	15.8	12.7	1.1	9	181	50
22	1,075	740	132	179	15	19	13.2	6.6	1.1	10	174	78
23	866	970	85	120	11	16	11.7	4.2	1.1	12	159	383
24	289	770	85	459	8	13	7.7	3.4	1.1	12	153	388
25	274	411	411	859	7	11	6.2	3.4	1.1	37	522	388
26	454	253	291	337	41	10	4.2	2.8	1.1	25	442	192
27	324	173	136	216	73	9	3.4	2.1	3.4	13	530	247
28	154	179	177	216	177	8	6.6	2.1	92.9	13	365	107
29	444	159	154	291	61	8	22.3	1.9	15.2	100	767	107
30	570	-	256	497	42	8	7.0	1.9	10.7	59	570	318
31	598	-	674	-	34	-	119.7	1.9	-	138	-	425
Mean	382	422	300	388	73	18	21.6	15.3	7.9	23	190	232
Min.	80	122	85	120	7	8	3.4	1.9	0.5	3	30	50
Max.	1,075	970	777	1,137	344	34	120	112	93	138	767	570

Annual Mean : 173 (m<sup>3</sup>/sec) Annual Total : 5,390 (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5.463 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.44	2.97	3.32	4.64	2.26	1.28	1.37	0.80	0.85	2.23	1.05	3.35
2	2.68	2.29	3.02	5.04	3.35	1.17	1.10	0.80	0.72	2.21	0.95	3.88
3	2.15	4.07	2.79	4.06	3.23	1.03	1.03	0.80	0.70	1.62	1.22	3.37
4	2.29	4.16	2.74	3.08	2.44	1.00	1.00	0.80	0.80	1.30	1.70	4.93
5	2.25	3.98	4.93	2.92	2.68	0.99	0.88	0.78	1.19	2.35	2.04	4.73
6	3.43	4.53	4.82	2.58	2.64	0.91	2.05	0.77	0.86	2.23	1.71	3.66
7	3.15	4.60	4.00	2.61	2.89	0.90	2.05	0.75	0.74	1.86	1.21	4.45
8	5.45	5.53	3.37	2.47	2.43	0.88	1.96	0.72	0.70	1.29	1.02	3.15
9	3.67	4.78	5.20	2.21	2.79	0.85	1.50	0.70	0.70	1.08	1.08	2.88
10	3.51	4.98	4.39	2.44	2.29	0.82	1.21	0.70	0.88	1.27	2.20	4.83
11	2.41	3.43	4.46	2.11	1.73	0.80	1.10	0.68	0.82	1.97	3.60	4.55
12	2.08	3.99	4.72	1.47	1.49	0.81	1.99	0.68	0.72	2.32	3.20	3.42
13	1.62	3.32	3.53	1.59	1.39	0.80	1.78	0.68	0.72	1.68	3.31	3.07
14	2.98	2.99	3.12	2.10	1.41	0.80	1.26	0.64	0.91	1.19	2.63	2.52
15	4.50	2.27	2.75	1.51	3.68	0.80	1.92	0.60	0.69	1.05	2.49	2.70
16	4.33	2.58	3.42	1.65	3.10	0.82	3.22	0.60	0.66	1.02	1.84	2.60
17	2.41	2.69	3.23	1.90	3.76	0.82	2.46	0.60	0.65	1.51	3.18	2.46
18	4.70	4.02	3.55	1.82	3.43	0.80	2.24	0.60	1.18	1.95	2.67	2.25
19	4.20	3.83	3.93	1.91	3.36	0.80	2.00	0.60	0.96	1.17	2.71	2.09
20	3.33	3.49	3.04	2.65	2.76	1.76	1.51	0.60	0.96	0.98	2.89	2.71
21	3.17	3.49	2.49	2.15	2.00	1.61	1.32	0.59	0.81	0.92	2.54	2.42
22	3.10	3.17	2.41	2.43	1.60	1.12	1.20	0.63	0.73	0.83	2.27	3.63
23	2.72	3.91	2.24	2.15	1.48	2.73	1.06	0.72	0.68	0.79	2.30	3.28
24	2.32	3.87	2.52	2.02	1.40	3.92	1.04	0.77	0.68	0.72	3.50	2.22
25	2.92	3.84	2.33	2.17	1.18	2.65	1.01	0.82	0.68	1.18	3.12	3.57
26	3.29	3.25	3.14	1.91	1.13	1.82	0.90	0.75	0.84	1.11	3.02	4.98
27	3.01	3.80	3.64	1.52	1.00	2.49	0.90	0.72	1.07	1.02	2.78	3.19
28	4.38	4.32	4.89	1.60	1.00	2.28	0.90	0.68	1.72	1.12	2.54	2.39
29	5.48	-	5.28	3.65	1.00	1.62	0.86	0.62	1.67	1.32	2.57	2.95
30	3.61	-	4.53	2.79	1.00	1.31	0.80	0.62	1.26	1.47	3.26	2.94
31	3.51	-	3.72	-	1.18	-	0.80	0.92	-	1.41	-	2.48
Mean	3.29		3.60	2.44	2.16	1.35	1.43	0.70	0.89	1.42	2.35	3.28
Min.	1.62		2.24	1.47	1.00	0.80	0.80	0.59	0.65	0.72	0.95	2.09
Max.	5.48		5.28	5.04	3.76	3.92	3.22	0.92	1.72	2.35	3.60	4.98
Annual Mean :	(m)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5.463 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	386	285	359	701	160	42	50	10.7	13.2	156	25	365
2	230	165	296	824	365	34	28	10.7	7.3	153	19	470
3	144	541	251	538	339	24	24	10.7	6.6	76	37	370
4	165	565	241	308	189	22	22	10.7	10.7	44	85	789
5	159	517	789	276	230	21	15	9.8	35.1	174	128	728
6	383	668	755	213	223	16	129	9.4	13.7	156	86	437
7	322	689	522	218	270	16	129	8.6	8.1	104	37	645
8	959	987	370	194	187	15	117	7.3	6.6	43	23	322
9	440	743	876	153	251	13	63	6.6	6.6	27	27	268
10	402	805	628	189	165	12	37	6.6	14.7	42	151	758
11	184	383	648	138	88	11	28	5.9	11.7	118	423	674
12	134	520	725	60	62	11	121	5.9	7.3	169	333	381
13	76	359	406	72	52	11	94	5.9	7.3	82	357	306
14	287	289	316	136	54	11	41	4.5	16.3	35	221	202
15	660	162	243	64	442	11	112	3.4	6.2	25	197	234
16	611	213	381	79	312	12	337	3.4	5.2	23	101	216
17	184	232	339	109	462	12	192	3.4	4.9	64	329	192
18	719	528	411	99	383	11	157	3.4	34.3	116	229	159
19	576	479	504	110	368	11	122	3.4	19.2	34	236	135
20	361	300	300	225	245	92	64	3.4	19.2	20	270	236
21	326	397	197	144	122	75	46	3.1	11.2	17	206	186
22	312	326	184	187	73	30	36	4.2	7.7	12	162	430
23	238	499	157	144	61	240	26	7.3	5.9	10	166	350
24	169	489	202	125	53	502	24	9.4	5.9	7	399	154
25	276	481	171	147	34	225	22	11.7	5.9	34	316	416
26	352	344	320	110	31	99	16	8.6	12.7	29	296	805
27	293	471	432	65	22	197	16	7.3	26.3	23	249	331
28	625	609	777	73	22	163	16	5.9	87.0	30	206	181
29	970	-	902	435	22	76	14	3.9	81.2	46	211	282
30	425	-	668	251	22	45	11	3.9	40.7	60	346	280
31	402	-	452	-	34	-	11	16.9	-	54	-	196
Mean	380		446	213	172	69	68	7	18	64	196	372
Min.	76		157	60	22	11	11	3	5	7	19	135
Max.	970		902	824	462	502	337	17	87	174	423	805
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.43	3.54	3.14	1.38	1.66	1.36	0.69	0.83	0.79	0.72	0.74	0.95
2	2.80	3.34	4.18	1.67	1.39	1.11	0.68	0.81	0.75	0.70	0.73	0.80
3	2.52	2.85	2.89	2.03	1.28	1.36	0.68	0.81	0.70	0.70	0.70	0.80
4	2.86	3.43	4.66	4.08	1.25	1.97	0.70	0.88	0.74	0.70	0.73	0.80
5	3.56	2.71	5.07	4.46	1.09	1.22	0.80	0.88	0.74	0.70	0.73	0.80
6	4.52	5.00	4.62	3.60	1.03	0.99	0.73	0.88	0.74	0.70	0.73	0.80
7	4.12	5.72	2.45	3.17	1.00	0.91	0.80	0.88	0.74	0.70	0.73	0.80
8	3.35	5.04	3.02	2.15	0.97	0.87	0.77	0.88	0.74	0.70	0.70	0.92
9	4.38	4.93	3.59	4.56	0.93	0.83	0.79	0.87	0.74	0.70	0.81	1.11
10	4.51	4.82	5.23	3.63	0.90	0.81	0.82	0.86	0.74	0.70	0.78	1.28
11	3.97	4.33	5.82	2.14	0.90	0.79	0.82	0.85	0.74	0.70	0.84	1.69
12	4.71	4.09	5.38	4.43	0.87	0.89	0.77	0.85	0.74	0.70	0.97	1.26
13	5.72	4.78	4.25	4.77	0.86	1.27	0.78	0.84	0.74	0.70	0.81	2.23
14	5.95	5.23	5.66	3.03	0.86	0.95	0.79	0.84	0.74	0.70	0.93	3.32
15	5.73	4.10	4.88	2.16	0.86	0.86	0.82	0.84	0.74	0.70	1.20	2.03
16	4.13	3.33	3.36	1.83	0.86	0.83	0.82	0.84	0.74	0.70	0.90	1.87
17	3.93	5.41	2.60	1.67	0.86	0.82	0.84	0.85	0.74	0.70	0.85	4.33
18	4.06	5.55	2.44	1.57	0.86	0.82	0.82	0.85	0.74	0.70	0.84	3.64
19	3.35	5.12	2.25	1.30	0.86	0.82	0.82	0.86	0.74	0.70	0.92	3.27
20	3.02	3.84	3.02	1.19	0.86	0.82	0.84	0.87	0.74	0.70	0.83	2.70
21	2.76	3.53	3.01	1.14	0.86	0.82	0.85	0.87	0.74	0.70	0.83	1.79
22	2.64	3.04	2.18	1.03	0.85	0.73	1.10	0.83	0.74	0.70	0.97	1.55
23	3.03	3.21	1.67	1.13	0.84	0.73	0.96	0.83	0.74	0.70	0.84	2.19
24	5.39	3.92	1.39	2.24	0.85	0.72	0.92	0.80	0.74	0.70	1.20	2.31
25	6.17	3.97	1.38	3.10	0.85	0.72	0.90	0.80	0.74	0.70	0.97	2.87
26	5.69	5.18	1.87	2.53	0.85	0.72	0.86	0.80	0.74	0.70	0.84	2.38
27	5.57	4.80	1.95	3.50	0.85	0.70	0.85	0.80	0.74	0.70	0.80	2.37
28	6.80	4.45	1.63	2.74	0.85	0.68	0.89	0.80	0.74	0.70	0.78	2.10
29	5.25	-	1.30	2.37	0.90	0.68	0.87	0.80	0.74	0.70	0.78	2.41
30	4.48	-	1.28	2.17	0.88	0.68	0.87	0.80	0.74	0.70	0.91	3.12
31	3.59	-	1.09	-	0.88	-	0.84	0.79	-	0.71	-	2.67
Mean	4.23	4.26	3.14	2.56	0.92	0.82	0.82	0.84	0.74	0.70	0.85	1.97
Min.	2.43	2.71	1.09	1.03	0.84	0.68	0.68	0.79	0.74	0.70	0.70	0.80
Max.	6.80	5.72	5.82	4.77	1.66	1.97	1.10	0.88	0.79	0.72	1.20	4.33

Annual Mean : 1.83 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	187	409	320	51	80	49	6	12	10.3	7.3	8.1	19
2	253	363	570	81	52	29	6	11	9.8	6.6	7.7	11
3	202	262	270	127	42	49	6	11	8.6	6.6	6.6	11
4	264	383	707	543	40	118	7	15	8.1	6.6	7.7	11
5	413	236	833	648	28	37	11	15	8.1	6.6	7.7	11
6	665	811	695	423	24	21	8	15	8.1	6.6	7.7	11
7	554	1,053	191	326	22	16	11	15	8.1	6.6	7.7	11
8	365	824	296	144	20	14	9	15	8.1	6.6	6.6	11
9	625	789	420	677	17	12	10	14	8.1	6.6	6.6	11
10	663	755	886	430	16	11	12	14	8.1	6.6	10	42
11	515	611	1,089	142	16	10	12	13	8.1	6.6	13	83
12	722	546	936	640	14	15	9	13	8.1	6.6	20	41
13	1,053	743	589	740	14	42	10	13	8.1	6.6	11	156
14	1,137	886	1,032	298	14	19	10	13	8.1	6.6	17	359
15	1,057	549	774	145	14	14	12	13	8.1	6.6	36	127
16	557	361	368	100	14	12	12	13	8.1	6.6	16	105
17	504	946	216	81	14	12	13	13	8.1	6.6	13	611
18	538	994	189	70	14	12	12	13	8.1	6.6	13	432
19	365	850	159	44	14	12	12	14	8.1	6.6	17	348
20	296	481	296	35	14	12	13	14	8.1	6.6	12	234
21	245	406	293	31	14	12	13	14	8.1	6.6	12	95
22	223	300	148	24	13	8	28	12	8.1	6.6	20	68
23	298	335	81	31	13	8	19	12	8.1	6.6	13	150
24	939	502	52	157	13	7	17	11	8.1	6.6	36	168
25	1,219	515	51	312	13	7	16	11	8.1	6.6	20	266
26	1,043	869	105	204	13	7	14	11	8.1	6.6	13	179
27	1,001	749	116	399	13	7	13	11	8.1	6.6	11	177
28	1,469	645	77	241	13	6	15	11	8.1	6.6	10	136
29	892	-	44	177	16	6	14	11	8.1	6.6	10	184
30	654	-	42	147	15	6	14	11	8.1	6.6	16	316
31	420	624	28	-	20	-	13	10	-	7.0	-	229
Mean	624	613	383	249	15	20	12	13	8	7	14	150
Min.	187	236	28	24	13	6	6	10	8	7	7	11
Max.	1,469	1,053	1,089	740	80	118	28	15	10	7	36	611

Annual Total : 5,472 (10<sup>6</sup> m<sup>3</sup>)

Annual Mean : 176 (m<sup>3</sup>/sec)



OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year : 1983		(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	4.02	2.20	4.38	1.95	1.42	1.52	1.30	1.10	1.04	1.05	2.33	1.35	
2	3.32	2.13	2.83	1.88	2.34	1.34	1.41	1.10	1.05	1.06	2.43	3.28	
3	3.42	3.07	2.25	2.10	2.59	1.78	1.34	1.10	1.04	1.09	2.48	2.10	
4	3.12	3.67	2.97	3.68	4.25	1.20	0.99	1.10	1.04	1.08	3.73	1.70	
5	3.08	3.00	2.68	3.13	3.20	1.14	0.91	1.06	1.03	1.17	2.53	1.40	
6	2.37	2.16	2.18	3.04	3.12	1.32	0.84	1.04	1.05	1.63	2.35	1.30	
7	6.10	4.17	2.30	2.23	3.48	1.53	0.79	1.04	1.03	1.41	2.07	1.42	
8	5.23	3.20	2.80	2.75	4.47	1.12	0.78	1.04	1.04	1.20	2.10	2.30	
9	4.43	2.62	3.63	2.85	3.95	1.06	0.78	1.04	1.04	1.13	2.93	2.23	
10	3.78	3.20	2.45	2.51	4.45	1.42	0.78	1.04	1.04	1.15	2.48	2.73	
11	3.62	2.92	2.33	3.08	4.07	2.29	0.90	1.04	1.04	1.14	2.52	2.27	
12	3.73	2.37	2.03	2.75	3.34	2.21	0.92	1.03	1.04	1.11	3.20	1.80	
13	3.03	2.97	2.22	2.58	3.82	1.41	0.79	1.03	1.04	1.15	2.65	1.59	
14	3.65	3.56	2.02	4.48	3.37	1.35	0.78	1.04	1.04	1.31	2.37	1.55	
15	2.75	3.45	2.10	4.45	3.25	1.29	0.80	1.03	1.04	1.27	2.25	2.04	
16	3.39	2.72	1.58	3.37	3.44	1.23	0.79	1.03	1.04	1.18	1.92	2.12	
17	3.12	2.82	2.10	3.83	3.00	1.20	0.76	1.03	1.04	1.12	1.70	2.25	
18	3.12	3.20	2.13	4.03	4.63	1.17	1.00	1.02	1.04	1.13	1.82	1.58	
19	2.59	2.81	2.10	3.12	3.60	1.12	1.00	1.05	1.04	1.55	1.79	1.30	
20	4.17	2.20	2.62	2.10	3.75	1.11	1.00	1.05	1.04	1.24	2.17	1.20	
21	3.50	2.91	3.72	1.66	3.57	1.10	1.00	1.05	1.04	1.22	3.28	1.57	
22	2.72	2.70	3.40	1.65	2.30	1.09	1.00	1.05	1.04	1.80	2.72	2.90	
23	2.25	4.00	3.33	1.55	3.23	1.07	1.00	1.04	1.04	1.65	2.03	3.38	
24	2.05	2.83	2.37	1.51	2.80	1.06	1.01	1.05	1.04	2.53	1.67	2.50	
25	1.85	1.80	2.03	1.37	2.42	1.06	1.10	1.04	1.05	2.97	1.80	3.62	
26	2.08	2.25	2.06	1.31	2.70	1.08	1.10	1.06	1.05	2.77	2.30	3.12	
27	2.08	2.77	2.13	1.37	2.52	1.08	1.10	1.06	1.05	1.81	2.85	3.55	
28	1.55	4.62	2.92	1.41	3.37	1.08	1.10	1.06	1.05	1.80	2.80	2.50	
29	1.83	-	2.07	1.41	2.49	1.43	1.10	1.06	1.05	3.13	1.78	4.22	
30	2.43	-	1.82	1.41	1.87	1.06	1.10	1.05	1.06	2.40	3.42	3.03	
31	1.64	-	1.65	-	1.68	-	1.10	1.04	-	1.87	-	2.47	
Mean	3.10	2.94	2.49	2.49	3.18	1.30	0.98	1.05	1.04	1.55	2.42	2.27	
Min.	1.55	1.80	1.58	1.31	1.42	1.06	0.76	1.02	1.03	1.05	1.67	1.20	
Max.	6.10	4.62	4.38	4.48	4.63	2.29	1.41	1.10	1.06	3.13	3.73	4.22	

Annual Mean : 2.07 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year : 1983		(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	528	151	625	116	55	65	44	28	24	25	171	49	
2	359	141	258	107	173	48	54	28	25	26	187	350	
3	381	306	159	136	214	94	48	28	24	28	196	136	
4	316	440	285	442	589	36	21	28	24	27	454	85	
5	308	291	230	318	333	31	16	26	24	34	204	53	
6	177	145	148	300	316	46	13	24	25	77	174	44	
7	1,193	567	166	156	395	66	10	24	24	54	132	55	
8	886	333	253	243	651	30	10	24	24	36	136	166	
9	640	220	430	262	509	26	10	24	24	31	278	156	
10	466	333	191	201	645	55	10	24	24	32	196	240	
11	428	276	171	308	541	165	16	24	24	31	202	162	
12	454	177	127	243	363	153	17	24	24	29	333	97	
13	298	285	154	213	476	54	10	24	24	32	225	72	
14	435	413	125	654	370	49	10	24	24	45	177	68	
15	243	388	136	645	344	43	11	24	24	42	159	128	
16	374	238	71	370	386	38	10	24	24	34	112	139	
17	316	256	136	479	291	36	9	24	24	30	85	159	
18	316	333	141	530	698	34	22	23	24	31	99	71	
19	214	254	136	316	423	30	22	25	24	68	95	44	
20	567	151	220	136	459	29	22	25	24	39	147	36	
21	399	274	452	80	416	28	22	25	24	37	350	70	
22	238	234	377	79	166	28	22	25	24	97	238	272	
23	159	522	361	68	339	26	22	24	24	79	127	372	
24	129	258	177	64	253	26	22	25	24	204	81	199	
25	103	97	127	50	186	26	28	24	25	285	97	428	
26	134	159	131	45	234	27	28	26	25	247	166	316	
27	134	247	141	50	202	27	28	26	25	98	262	411	
28	68	695	276	54	370	27	28	26	25	97	253	199	
29	100	-	132	54	197	56	28	26	25	318	94	581	
30	187	-	99	54	105	26	28	25	26	182	381	298	
31	78	-	79	-	82	-	28	24	-	105	-	194	
Mean	343	292	210	226	348	47	22	25	24	81	194	182	
Min.	68	97	71	45	55	26	9	23	24	25	81	36	
Max.	1,193	695	625	654	698	165	54	28	26	318	454	581	

Annual Total : 5,222 (10<sup>6</sup> m<sup>3</sup>)

Annual Mean : 166 (m<sup>3</sup>/sec)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	1984												Year
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
1	3.43	6.42	2.65	2.12	2.00	1.53	1.17	1.12	1.17	1.63	0.92	2.65	
2	2.45	6.65	4.15	2.00	1.79	1.52	2.15	1.10	1.24	1.68	0.94	2.41	
3	2.05	6.43	5.17	1.95	1.26	1.43	1.91	1.10	1.30	2.21	0.93	2.19	
4	2.74	5.72	5.23	1.95	1.80	1.33	1.48	1.11	1.32	2.19	0.91	2.40	
5	3.52	6.17	5.00	2.60	1.80	1.40	1.40	1.08	2.15	1.75	1.50	4.85	
6	4.00	6.14	4.20	2.93	1.76	1.41	1.40	1.11	2.29	1.68	1.03	5.02	
7	3.10	6.47	4.57	1.90	1.76	1.25	1.28	1.10	1.97	1.81	1.04	4.70	
8	3.02	6.07	3.95	2.69	1.74	1.22	1.22	1.04	1.81	1.87	0.91	3.64	
9	2.40	5.20	5.60	2.65	1.74	1.64	1.21	1.11	1.82	1.69	1.03	3.21	
10	2.53	5.13	5.72	3.62	1.74	1.14	1.19	1.14	2.07	1.61	0.96	2.53	
11	4.30	5.13	4.97	4.45	1.74	2.37	1.14	1.12	1.57	1.62	0.90	2.80	
12	5.10	5.30	3.20	4.80	1.74	2.16	1.10	1.10	2.35	1.90	0.93	2.80	
13	5.67	5.43	3.00	4.40	1.70	1.93	1.08	1.11	2.07	2.25	0.85	4.03	
14	5.47	4.53	3.11	3.55	1.70	1.40	1.05	1.11	1.90	2.05	1.13	4.38	
15	4.25	3.57	2.92	4.50	1.70	1.33	0.98	1.12	2.07	1.91	1.03	3.16	
16	3.90	2.83	4.55	4.95	1.70	1.25	0.91	1.13	2.40	1.73	1.05	3.00	
17	3.50	3.42	4.67	3.50	1.70	1.32	0.90	1.11	2.16	1.74	3.36	2.61	
18	3.63	3.66	3.80	3.08	1.99	1.19	1.05	1.11	2.03	1.92	1.32	2.28	
19	3.13	5.80	3.15	2.65	1.96	1.19	1.10	1.09	1.65	1.46	1.12	2.01	
20	2.80	4.27	3.40	2.18	2.12	1.20	1.14	1.10	1.48	1.43	1.28	1.83	
21	2.17	3.70	3.50	1.85	2.15	1.35	1.19	1.09	1.52	1.32	1.06	1.75	
22	3.50	3.13	2.70	1.80	1.91	1.18	1.16	1.05	1.82	1.51	0.91	1.74	
23	4.30	3.67	2.63	1.97	1.82	1.19	1.20	1.11	1.62	1.67	2.00	2.17	
24	5.32	3.30	2.35	2.00	2.08	1.16	1.20	1.17	1.42	1.52	1.86	1.95	
25	4.47	2.98	1.92	2.10	1.87	1.10	1.42	1.13	1.30	1.15	2.60	3.74	
26	3.63	2.90	1.55	2.22	1.71	1.08	1.11	1.33	1.30	1.10	2.92	4.63	
27	6.07	3.58	1.39	2.30	1.60	1.18	1.17	1.65	1.57	1.03	2.31	3.67	
28	4.80	3.40	2.02	2.20	1.87	1.03	1.42	1.54	2.34	0.95	1.69	4.00	
29	5.27	3.00	2.62	2.47	1.49	1.00	1.20	1.63	1.86	0.94	1.42	2.85	
30	4.47	-	2.20	2.26	1.83	1.00	1.20	1.32	1.72	0.93	1.79	2.30	
31	5.38	-	2.25	-	1.56	-	1.64	1.32	-	0.92	-	2.09	
Mean	3.88	4.68	3.49	2.79	1.78	1.35	1.25	1.18	1.78	1.59	1.39	2.99	
Min.	2.05	2.83	1.39	1.80	1.26	1.00	0.90	1.04	1.17	0.92	0.85	1.74	
Max.	6.07	6.65	5.72	4.95	2.15	2.37	2.15	1.65	2.40	2.25	3.36	5.02	

Annual Mean : 2.35 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	1984												Year
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
1	383	1,316	225	139	122	66	34	30	34	77	17	225	
2	191	1,408	562	122	95	65	144	28	39	82	18	184	
3	129	1,320	866	116	41	56	110	28	44	153	17	150	
4	241	1,053	886	116	97	47	61	29	46	150	16	182	
5	404	1,219	811	216	97	53	53	27	144	90	63	764	
6	522	1,208	576	278	92	54	53	29	165	82	24	818	
7	312	1,335	680	109	92	40	42	28	118	98	24	719	
8	296	1,181	509	232	89	37	37	24	98	105	16	432	
9	182	876	1,011	225	89	78	37	29	99	83	24	335	
10	204	853	1,053	428	89	31	35	31	132	75	19	204	
11	603	853	802	645	89	177	31	30	70	76	16	135	
12	843	909	333	749	89	145	28	28	174	109	17	253	
13	1,036	953	291	631	85	113	27	29	132	159	13	530	
14	966	668	314	411	85	53	25	29	109	129	31	625	
15	589	416	276	660	85	47	20	30	132	110	24	324	
16	497	258	674	795	85	40	16	31	182	88	25	291	
17	399	381	710	399	85	46	16	29	145	89	368	218	
18	430	437	471	308	121	35	25	29	127	112	46	163	
19	318	1,082	322	225	117	35	28	28	79	59	30	124	
20	253	595	377	148	139	36	31	28	61	56	42	100	
21	147	447	399	103	144	49	35	25	65	46	26	90	
22	399	318	234	97	110	34	33	25	99	64	16	89	
23	603	440	221	118	99	35	36	29	76	81	122	147	
24	915	354	174	122	134	33	36	34	55	65	104	116	
25	651	287	112	136	105	28	55	31	44	32	216	457	
26	430	272	68	154	86	27	29	47	44	28	276	698	
27	1,181	418	52	166	73	34	34	79	70	24	168	440	
28	749	377	125	151	105	24	55	67	173	19	83	522	
29	899	291	220	194	62	22	36	77	104	18	55	262	
30	651	-	151	160	100	22	36	46	87	17	95	166	
31	936	-	159	-	69	-	78	46	-	17	-	135	
Mean	528	758	441	278	96	52	42	35	98	77	67	319	
Min.	129	258	52	97	41	22	16	24	34	17	13	89	
Max.	1,181	1,408	1,053	795	144	177	144	79	182	159	368	818	

Annual Mean : 233 (m<sup>3</sup>/sec)

Annual Total : 7,240 (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	1985												Year	1985																								
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		Dec	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
1	1.90	3.20	3.85	3.41	3.41	2.95	1.05	1.10	1.22	1.00	1.74	3.33	1	109	333	484	379	99	282	25	28	37	22	89	361													
2	2.05	2.65	4.99	2.91	1.81	3.35	1.00	1.06	1.00	0.97	1.60	2.29	2	129	225	808	274	98	365	22	26	27	20	73	165													
3	1.90	3.17	3.48	2.49	1.72	2.89	1.18	1.21	1.00	0.90	1.59	2.29	3	109	326	395	197	87	270	34	37	27	16	72	165													
4	1.75	3.78	2.75	3.63	1.50	2.33	1.12	1.62	1.00	0.90	1.49	2.11	4	90	466	243	430	63	171	30	76	22	16	62	138													
5	1.69	3.80	5.89	2.88	1.42	1.96	1.05	1.25	0.97	0.93	1.52	1.99	5	83	471	1,115	268	55	117	25	40	20	17	65	121													
6	2.79	3.54	5.63	2.55	1.61	1.57	1.05	1.11	0.93	0.90	1.91	3.08	6	251	409	1,022	207	75	70	25	29	17	16	110	308													
7	3.19	2.75	6.28	2.20	2.49	1.41	1.12	1.10	1.00	0.90	2.30	3.52	7	331	243	1,261	151	197	54	30	28	22	16	166	404													
8	4.72	4.07	6.60	1.90	2.22	2.39	1.10	1.08	0.97	0.90	1.88	2.28	8	725	541	1,387	109	154	181	28	27	20	16	107	163													
9	3.39	4.42	6.59	1.90	2.56	2.73	1.08	1.10	1.04	0.93	1.46	2.01	9	374	637	1,383	109	209	240	27	28	24	17	59	124													
10	3.07	5.15	6.56	1.82	2.16	2.23	1.08	1.13	1.28	1.06	1.58	1.82	10	306	859	1,371	99	145	156	27	31	42	26	71	99													
11	3.02	6.02	6.17	1.92	1.92	1.63	1.05	1.38	1.16	1.00	1.28	1.74	11	296	1,163	1,219	112	71	77	25	51	33	22	42	89													
12	3.25	5.13	5.43	2.86	1.47	1.42	1.13	1.18	1.07	1.00	1.32	1.86	12	344	853	953	264	60	55	31	34	26	22	46	104													
13	4.16	4.40	4.27	3.95	1.87	1.35	1.28	1.09	1.00	0.94	1.52	2.18	13	565	631	595	509	105	49	42	22	18	65	148														
14	3.37	5.74	3.89	3.91	1.61	1.32	1.16	1.03	1.00	1.27	1.67	2.11	14	370	1,061	494	499	75	46	33	24	22	42	81	138													
15	3.51	4.53	3.77	3.62	1.55	1.30	1.10	1.45	1.00	1.52	1.71	1.84	15	402	668	464	428	68	44	28	58	22	65	86	101													
16	4.15	2.88	4.13	3.92	1.32	1.28	1.08	1.27	0.98	1.07	1.33	1.67	16	562	268	557	502	46	42	27	42	20	26	47	81													
17	3.92	2.31	4.01	4.42	1.57	1.23	1.08	1.21	1.00	1.72	1.24	1.66	17	502	168	525	637	70	38	27	37	22	87	39	80													
18	5.88	2.89	3.75	3.75	1.47	1.13	1.08	1.16	1.07	1.08	1.20	1.62	18	1,111	270	459	459	60	31	27	33	26	27	36	76													
19	5.27	3.52	3.45	3.76	1.41	1.07	1.06	1.12	1.02	1.08	1.21	1.67	19	899	404	388	462	54	26	26	29	22	23	86	147													
20	5.83	5.16	3.12	3.87	1.35	1.00	1.11	1.00	1.00	1.02	1.71	2.17	20	1,093	863	316	489	49	22	29	22	22	22	86	147													
21	4.95	3.05	2.93	3.10	1.33	1.79	1.07	1.00	1.00	1.96	1.76	2.02	21	795	302	278	312	47	95	26	22	22	117	92	125													
22	3.60	4.62	2.51	3.07	1.28	1.94	1.15	1.00	1.00	2.20	1.42	2.39	22	423	695	201	306	42	114	32	22	22	151	55	181													
23	3.12	5.90	2.27	2.99	1.28	1.48	1.05	1.03	0.97	2.18	1.33	1.94	23	316	1,118	162	289	42	61	25	24	20	148	47	114													
24	2.82	5.45	2.73	2.51	1.28	1.43	1.00	1.05	0.88	1.74	1.50	2.34	24	256	959	240	201	42	56	22	25	15	89	63	173													
25	5.22	3.90	3.19	3.05	1.30	1.61	1.53	1.02	0.80	2.09	1.80	3.46	25	882	497	331	302	44	75	66	23	11	135	97	390													
26	4.97	3.03	2.46	2.79	1.40	1.55	1.70	1.01	0.93	2.74	1.44	2.37	26	802	298	192	251	53	68	85	22	17	241	57	177													
27	4.47	3.07	2.40	2.83	1.66	1.22	1.35	1.05	1.00	1.93	2.70	2.40	27	651	306	182	258	80	37	49	25	22	113	234	182													
28	3.26	2.95	3.90	3.06	1.38	1.15	1.26	1.00	1.07	1.82	3.30	2.42	28	346	282	497	304	51	32	41	22	26	99	354	186													
29	3.14	-	3.45	3.06	1.29	1.10	1.21	1.00	1.02	2.22	4.14	3.93	29	320	-	388	304	43	28	37	22	23	154	559	504													
30	3.02	-	4.12	2.38	1.25	1.10	1.10	1.03	1.06	2.41	4.17	4.39	30	296	-	554	179	40	28	28	24	26	184	567	628													
31	3.23	-	4.92	-	1.56	-	1.10	1.54	-	2.21	-	3.54	31	339	-	786	-	69	-	28	32	67	153	-	409													
Mean	3.57	3.97	4.18	3.02	1.60	1.70	1.14	1.14	1.02	1.44	1.83	2.40	Mean	454	547	621	310	77	98	32	32	23	68	119	199													
Min.	1.69	2.31	2.27	1.82	1.25	1.00	1.00	1.00	0.80	0.90	1.20	1.62	Min.	83	168	162	99	40	22	22	22	11	16	36	76													
Max.	5.88	6.02	6.60	4.42	2.56	3.35	1.70	1.62	1.28	2.74	4.17	4.39	Max.	1,111	1,163	1,387	637	209	365	85	76	42	241	567	628													
Annual Mean :	2.25 (m)												Annual Mean :	215 (m <sup>3</sup> /sec)												Annual Total :	6,722 (10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.73	2.25	3.57	4.85	1.89	0.64	2.05	1.08	0.90	1.15	1.57	1.39
2	2.65	2.94	2.74	3.86	1.79	0.72	1.43	1.12	1.05	1.20	1.78	1.23
3	3.96	3.89	2.67	4.61	1.72	3.13	0.99	1.09	1.01	1.16	1.99	1.24
4	3.54	3.07	3.73	4.70	1.63	3.43	0.91	0.97	1.02	1.16	2.22	1.13
5	4.91	2.96	4.42	4.47	1.54	2.93	0.81	0.86	0.92	1.08	1.75	1.09
6	4.55	3.19	3.82	3.92	1.47	2.75	0.79	0.71	0.79	1.04	3.90	1.25
7	3.47	3.53	4.22	4.32	1.37	2.60	0.73	0.65	1.01	1.00	4.16	1.32
8	3.28	3.64	5.93	3.72	1.31	1.87	0.67	1.04	2.06	1.22	4.03	1.78
9	4.31	4.76	5.09	2.93	1.25	1.57	0.60	1.01	2.45	1.35	3.30	1.76
10	4.04	4.08	3.91	2.36	1.19	1.35	1.04	1.14	2.13	1.97	2.28	1.73
11	3.49	5.14	3.68	3.10	1.13	1.19	1.00	1.10	1.87	1.86	2.71	1.35
12	3.18	4.98	3.89	4.32	1.10	1.16	1.00	1.03	1.67	1.73	2.21	1.19
13	2.61	4.34	4.80	4.37	2.32	2.71	1.03	0.94	1.23	1.87	1.99	1.30
14	2.41	3.63	3.62	3.01	2.30	3.00	1.46	0.87	1.13	2.17	1.59	2.50
15	2.36	3.21	3.15	2.26	2.11	2.44	1.45	0.90	1.07	1.96	1.55	2.72
16	2.12	3.49	3.47	4.67	1.56	1.90	1.13	0.97	1.15	1.25	1.56	2.14
17	2.15	3.02	2.83	3.19	1.11	1.73	1.13	1.00	1.08	1.17	1.64	1.60
18	1.80	3.83	2.47	3.02	1.00	1.58	1.61	1.05	1.04	1.14	1.64	1.55
19	1.67	5.57	3.61	3.41	0.99	1.35	1.60	0.95	1.20	1.00	2.13	1.14
20	1.93	2.84	3.39	2.97	0.95	1.20	1.54	0.90	1.02	0.93	2.12	1.52
21	3.37	3.19	3.50	2.89	0.89	1.16	1.87	1.02	0.20	0.84	1.49	1.32
22	3.40	4.26	4.76	3.05	0.86	1.16	2.09	0.98	1.22	0.16	1.31	1.65
23	3.11	4.00	5.35	2.38	0.81	1.15	1.84	0.87	1.05	0.90	1.37	1.45
24	3.40	4.51	5.53	3.00	0.78	1.15	1.40	0.80	2.15	0.96	1.36	1.65
25	3.47	4.91	6.78	2.74	0.74	1.17	1.19	0.76	2.46	1.08	2.30	1.41
26	4.98	4.41	6.53	2.60	0.72	1.22	1.96	0.90	2.29	1.28	3.58	1.72
27	4.95	3.75	5.99	2.36	0.68	2.53	1.49	0.92	1.33	1.49	4.01	1.93
28	4.51	3.71	5.80	2.14	0.66	2.12	1.26	0.91	1.20	1.37	3.64	1.88
29	4.30	-	6.00	2.06	0.66	1.26	1.04	0.90	1.10	1.48	2.37	2.23
30	4.24	-	4.33	1.96	0.64	2.09	0.94	0.90	1.02	1.34	1.65	3.10
31	3.42	-	3.83	-	0.64	-	0.84	0.90	-	1.98	-	4.40
Mean	3.36	3.83	4.30	3.31	1.22	1.81	1.25	0.94	1.33	1.30	2.31	1.73
Min.	1.67	2.25	2.47	1.96	0.64	0.64	0.60	0.65	0.20	0.16	1.31	1.09
Max.	4.98	5.57	6.78	4.85	2.32	3.43	2.09	1.14	2.46	2.17	4.16	4.40

Annual Mean : 2.22 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	266	175	472	897	119	8	143	33	21	38	78	59
2	250	312	268	556	105	11	63	36	30	42	104	44
3	587	565	254	807	96	357	26	33	28	39	134	45
4	463	342	517	840	85	433	21	25	28	39	170	36
5	920	317	739	757	75	310	16	18	22	33	100	33
6	785	371	544	574	67	270	15	11	15	30	568	46
7	444	461	671	704	57	240	12	9	28	27	651	52
8	394	491	1,361	514	52	116	9	30	144	44	609	104
9	701	863	992	310	46	78	7	28	211	55	399	102
10	612	625	571	194	41	55	30	37	155	131	180	98
11	450	1,012	503	349	36	41	27	34	116	115	262	55
12	369	948	565	704	34	39	27	29	90	98	168	41
13	242	711	878	722	187	262	29	23	44	116	134	51
14	203	489	486	328	184	326	66	19	36	162	81	220
15	194	376	362	177	152	209	65	21	32	129	76	264
16	154	450	444	829	77	120	36	25	38	46	77	157
17	158	330	288	371	35	98	36	27	33	39	87	82
18	107	547	214	330	27	80	83	30	30	37	87	76
19	90	1,196	483	428	26	55	82	24	42	27	155	37
20	125	290	423	319	24	42	75	21	28	22	154	73
21	417	371	452	301	20	39	116	28	0	17	70	52
22	425	684	863	338	18	39	149	26	44	0	52	88
23	352	599	1,100	198	16	38	112	19	30	21	57	65
24	425	771	1,178	326	14	38	60	15	158	24	56	88
25	444	920	1,795	268	12	39	41	13	213	33	184	61
26	948	736	1,661	240	11	44	129	21	182	49	474	96
27	936	523	1,390	194	10	226	70	22	53	70	603	125
28	771	512	1,300	157	9	154	47	21	42	57	491	118
29	698	-	1,395	144	9	47	30	21	34	68	196	172
30	677	-	708	129	8	149	23	21	28	54	88	349
31	431	-	547	-	8	-	17	21	-	132	-	732
Mean	453	571	756	434	54	132	54	24	65	58	218	117
Min.	90	175	214	129	8	8	7	9	0	0	52	33
Max.	948	1,196	1,795	897	187	433	149	37	213	162	651	732

Annual Mean : 245 (m<sup>3</sup>/sec)

Annual Total : 7,637 (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	5.15	3.18	2.37	2.50	1.17	1.17	1.17	0.86	1.17	0.73	0.67	1.70
2	4.45	3.68	3.64	2.01	1.40	1.12	0.98	0.84	0.98	0.75	0.68	1.48
3	3.24	4.16	3.65	1.95	1.21	1.14	0.92	0.81	0.92	0.76	0.68	1.32
4	2.13	5.23	4.11	1.50	1.47	1.35	0.95	0.85	0.95	0.73	0.68	1.40
5	3.87	5.51	4.64	1.15	1.31	1.37	0.98	0.85	0.98	0.73	0.68	3.17
6	3.34	3.79	4.84	1.33	1.33	2.02	0.98	0.86	0.98	0.73	0.68	5.13
7	3.61	3.45	3.47	1.41	1.45	2.61	0.93	0.84	0.93	0.76	1.09	4.73
8	3.36	3.21	2.50	1.32	1.68	2.56	0.90	0.83	0.90	0.75	1.08	3.28
9	4.06	5.89	4.15	2.27	1.69	2.38	0.89	0.82	0.89	0.72	1.14	2.29
10	4.34	5.76	2.72	1.42	1.65	1.73	0.88	0.82	0.88	0.72	0.84	3.21
11	3.22	5.58	2.47	1.30	1.38	1.50	0.86	0.81	0.86	0.72	0.84	3.45
12	3.21	6.17	2.24	2.44	1.23	1.37	0.84	0.83	0.80	0.81	0.81	4.73
13	3.14	6.25	1.92	2.03	1.16	1.26	0.80	0.83	0.86	1.00	1.00	4.15
14	3.70	5.76	1.83	1.38	1.09	1.24	0.86	0.84	0.81	0.80	0.80	3.18
15	3.61	6.02	3.33	1.20	1.16	1.22	0.81	0.84	0.90	0.80	0.71	2.71
16	3.69	5.73	3.82	1.55	1.96	1.17	0.94	0.84	0.98	0.80	0.80	2.50
17	4.48	5.51	6.54	1.47	1.66	1.14	0.98	0.81	1.19	0.80	0.87	1.87
18	4.07	4.24	4.66	1.29	1.39	1.10	1.23	0.80	1.11	0.80	0.80	2.29
19	3.70	4.52	3.34	1.17	1.27	1.07	1.11	0.80	1.03	0.89	0.89	2.02
20	2.68	4.51	4.13	1.74	1.19	1.03	1.03	0.80	1.00	0.72	0.89	3.14
21	3.80	5.37	5.94	1.65	1.12	1.00	1.00	0.81	0.95	0.72	1.37	2.77
22	3.81	5.86	5.43	1.33	1.10	1.04	0.95	0.80	0.95	0.71	1.46	2.58
23	3.34	4.53	4.46	1.91	1.05	1.02	0.95	0.78	0.92	0.71	2.20	2.32
24	2.76	4.50	4.34	1.55	1.02	1.00	0.92	0.75	0.92	0.71	2.08	4.28
25	3.02	4.25	4.20	1.24	1.00	0.96	0.92	0.74	0.92	0.71	1.29	4.69
26	5.97	5.07	3.30	1.15	1.00	1.05	0.92	0.74	0.90	0.70	1.06	6.62
27	6.42	3.83	2.67	1.25	0.93	1.15	0.90	0.72	0.88	0.70	1.09	3.94
28	3.71	2.83	2.43	1.19	0.90	1.00	0.88	0.70	0.88	0.70	1.17	2.69
29	3.71	-	2.16	1.10	1.16	0.93	0.88	0.70	0.88	0.70	1.57	2.25
30	4.15	-	1.61	1.07	1.15	0.91	0.88	0.75	0.88	0.68	1.51	2.04
31	3.91	-	1.63	-	1.24	-	0.86	0.74	-	0.68	-	1.74
Mean	3.80	4.80	3.50	1.53	1.27	1.32	0.94	0.80	0.94	0.80	1.05	3.02
Min.	2.13	2.83	1.61	1.07	0.90	0.91	0.80	0.70	0.80	0.67	1.32	1.32
Max.	6.42	6.25	6.54	2.50	1.96	2.61	1.23	0.86	1.19	2.20	6.62	6.62
Annual Mean :	(m)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1,016	369	196	220	39	38	39	18	39	12	9	94
2	750	503	491	136	60	36	26	17	26	13	10	68
3	384	651	494	128	43	37	22	16	22	13	10	52
4	155	1,049	635	71	67	55	24	18	24	12	10	60
5	559	1,169	818	38	52	57	26	18	26	12	10	367
6	410	535	893	53	53	138	26	18	26	12	10	1,008
7	483	439	444	61	65	242	22	17	22	13	33	851
8	415	376	220	52	91	232	21	17	21	13	33	394
9	618	1,342	648	178	93	198	20	16	20	11	37	182
10	711	1,282	264	62	88	98	19	16	19	11	17	376
11	379	1,200	214	51	58	71	18	16	18	11	17	439
12	376	1,478	173	209	44	57	17	17	15	15	16	851
13	359	1,517	123	140	39	47	15	17	18	17	27	648
14	509	1,282	111	58	33	45	18	17	16	16	15	369
15	483	1,404	407	42	39	44	16	17	21	15	262	262
16	506	1,268	544	76	129	39	23	17	26	15	220	220
17	760	1,169	1,666	67	89	37	26	16	41	15	116	116
18	622	677	825	50	59	34	44	15	35	15	182	182
19	509	774	410	39	48	32	35	15	29	20	138	138
20	256	771	641	99	41	29	29	15	27	11	20	359
21	538	1,109	1,366	88	36	27	27	16	24	11	57	275
22	541	1,328	1,134	53	34	30	24	15	24	11	66	236
23	410	778	753	122	30	28	24	14	22	11	167	187
24	272	767	711	76	28	27	22	13	22	11	147	691
25	330	681	664	45	27	24	22	12	22	11	50	836
26	1,380	984	399	38	27	30	22	12	21	11	31	1,709
27	1,604	547	254	46	22	38	21	11	19	11	33	581
28	512	288	207	41	21	27	19	11	19	11	39	258
29	512	-	160	34	39	22	19	11	19	11	78	175
30	648	-	83	32	38	21	19	13	19	10	72	141
31	571	-	85	-	45	-	18	12	-	10	-	99
Mean	567	919	517	80	51	61	23	15	23	37	394	394
Min.	155	288	83	32	21	21	15	11	15	9	52	52
Max.	1,604	1,517	1,666	220	129	242	44	18	41	167	1,709	1,709
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	1988												Annual Mean :	2.06 (m)
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		
1	1.69	2.22	2.22	2.28	3.74	1.94	0.83	1.00	0.91	0.92	1.92	2.12		
2	1.53	2.45	2.22	2.81	1.32	1.13	0.75	1.04	0.90	0.92	1.73	3.16		
3	1.63	4.04	1.68	1.86	1.03	1.26	0.77	0.97	1.03	1.49	2.45			
4	1.42	2.19	1.68	2.05	2.01	1.17	1.04	1.08	1.01	0.78	1.24	2.25		
5	1.88	6.31	3.49	1.72	2.52	1.17	1.00	1.15	0.87	0.90	1.17	2.01		
6	3.18	6.34	2.75	1.35	3.35	1.08	0.92	1.18	0.81	0.97	1.52	1.76		
7	2.75	5.69	2.37	2.00	2.43	1.69	1.12	1.14	1.04	0.90	1.14	1.66		
8	1.84	4.61	2.55	1.82	2.67	2.93	1.02	1.22	1.01	1.02	1.11	1.44		
9	1.65	3.51	3.19	1.74	2.80	2.03	1.08	1.08	0.96	0.98	1.16	1.26		
10	1.58	4.34	5.65	2.85	1.78	1.78	1.01	1.14	1.01	0.98	1.30	1.05		
11	2.05	3.53	4.19	2.02	2.02	2.01	1.01	0.99	1.01	0.85	1.86	1.03		
12	2.67	6.91	3.37	1.92	2.94	2.29	0.88	0.99	1.00	1.00	3.16	1.40		
13	2.33	4.86	2.72	1.86	4.91	1.59	0.81	1.17	1.00	1.10	4.15	1.21		
14	1.79	4.30	2.51	1.55	3.88	1.30	0.73	1.02	1.03	1.15	2.14	2.04		
15	1.94	4.87	2.49	1.43	4.00	1.21	0.73	1.12	0.97	1.41	3.98	1.70		
16	1.87	4.79	2.03	1.22	2.84	1.81	0.79	1.00	0.92	1.58	4.81	1.36		
17	2.18	4.19	2.79	1.08	2.67	1.63	0.86	1.03	1.02	1.78	3.91	2.29		
18	3.73	3.59	2.94	1.07	2.81	1.58	1.02	0.97	1.01	1.43	3.64	1.96		
19	2.62	3.23	2.68	1.74	2.91	1.84	0.95	0.90	1.04	1.60	2.39	2.75		
20	2.83	2.43	3.45	5.06	2.26	1.77	0.90	0.95	0.95	1.65	1.99	2.78		
21	3.64	2.15	2.36	3.88	1.43	1.41	0.80	1.05	0.89	1.93	1.76	2.70		
22	5.17	1.91	2.77	2.22	2.04	1.33	0.86	1.00	1.03	1.57	1.78	4.84		
23	4.00	2.68	3.77	1.55	4.22	1.21	0.85	1.03	1.10	1.55	1.69	4.18		
24	3.04	2.16	4.34	1.17	5.14	1.17	0.88	0.98	1.07	1.27	1.89	2.92		
25	5.04	3.33	2.16	1.07	4.95	1.08	1.32	1.00	1.05	1.19	3.00	2.74		
26	4.53	4.51	2.66	0.91	4.35	1.04	1.02	0.92	1.03	1.23	3.34	1.98		
27	4.35	3.92	2.90	0.83	3.06	1.13	0.90	1.01	0.92	1.57	3.65	1.90		
28	4.77	3.02	2.02	0.73	1.72	0.90	1.00	0.99	0.86	1.70	2.33	2.41		
29	4.01	2.24	4.11	1.35	1.53	0.91	0.95	0.97	1.03	1.23	3.67	2.04		
30	4.60	-	4.83	2.89	1.74	0.82	1.01	1.00	0.91	2.17	2.74	2.44		
31	4.64	-	4.79	-	1.56	-	1.01	0.91	-	2.03	-	2.58		
Mean	2.93	3.86	3.02	1.92	2.74	1.45	0.93	1.03	0.98	1.30	2.39	2.21		
Min.	1.42	1.91	1.68	0.73	1.03	0.82	0.73	0.90	0.81	0.78	1.11	1.03		
Max.	5.17	6.91	5.65	5.06	5.14	2.93	1.32	1.22	1.10	2.17	4.81	4.84		

Annual Mean : 2.06 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	1988												Annual Total :	6,498 (10 <sup>6</sup> m <sup>3</sup> )
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		
1	93	170	180	520	126	56	17	27	21	22	123	154		
2	74	211	170	283	52	36	13	30	21	22	98	364		
3	85	612	91	115	29	47	14	25	25	29	70	211		
4	62	165	91	143	136	39	30	33	28	14	45	175		
5	118	1,548	450	96	224	39	27	38	19	21	39	136		
6	369	1,563	270	55	412	33	22	40	16	25	73	102		
7	270	1,250	196	135	207	93	36	37	30	21	37	89		
8	112	807	230	109	254	310	28	44	28	28	35	64		
9	88	455	371	99	281	140	33	33	24	26	39	47		
10	80	711	1,232	292	104	104	28	37	28	26	51	30		
11	143	461	661	138	138	136	28	26	28	18	115	29		
12	254	1,866	417	123	312	182	19	26	27	27	364	60		
13	189	901	264	115	920	81	16	39	27	34	648	43		
14	105	698	222	76	562	51	12	28	29	38	157	141		
15	126	905	218	63	599	43	12	36	25	61	593	94		
16	116	874	140	44	290	108	15	27	22	80	882	56		
17	163	661	279	33	254	85	18	29	28	104	571	182		
18	517	477	312	32	283	80	28	25	28	63	491	129		
19	244	381	256	99	305	112	24	21	30	82	200	270		
20	288	207	439	980	177	103	21	24	24	88	134	277		
21	491	158	194	562	63	61	15	30	20	125	102	260		
22	1,025	122	275	170	141	53	18	27	29	78	104	893		
23	599	256	529	76	671	43	18	29	34	76	93	657		
24	335	160	711	39	1,012	39	19	26	32	48	119	308		
25	972	407	160	32	936	33	52	27	30	41	326	268		
26	778	771	252	21	715	30	28	22	29	44	410	132		
27	715	574	303	17	340	36	21	28	22	78	494	120		
28	866	330	138	12	96	21	27	26	18	94	189	203		
29	603	173	635	55	74	21	24	25	29	44	500	141		
30	803	-	889	301	99	16	28	27	21	162	268	209		
31	818	-	874	-	77	-	28	21	-	140	-	236		
Mean	371	632	369	161	319	74	23	29	26	57	246	196		
Min.	62	122	91	12	29	16	12	21	16	14	35	29		
Max.	1,025	1,866	1,232	980	1,012	310	52	44	34	162	882	893		

Annual Mean : 209 (m<sup>3</sup>/sec)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.59	1.83	5.33	2.18	1.76	2.19	0.98	1.04	1.19	0.98	1.92	1.70
2	2.02	2.17	4.74	2.03	1.07	6.23	1.35	0.91	1.08	1.05	2.73	1.57
3	1.79	3.23	3.21	2.14	2.26	3.91	1.20	0.82	0.98	1.29	2.24	1.49
4	4.18	2.64	2.85	4.20	1.96	2.78	0.94	1.73	1.15	1.15	1.64	1.35
5	4.56	2.33	2.20	3.40	1.80	2.84	0.81	1.67	1.03	1.15	1.49	1.43
6	3.60	2.43	2.14	2.87	2.01	3.39	0.48	1.04	0.94	1.04	2.31	1.31
7	4.07	2.07	1.90	2.49	1.88	2.51	0.84	2.78	0.99	1.08	2.70	1.32
8	4.17	2.37	2.35	3.32	2.25	2.03	1.44	2.30	0.95	0.97	2.87	1.29
9	3.89	2.74	3.36	2.25	2.03	1.74	2.98	1.74	0.91	1.02	3.10	3.31
10	4.43	2.69	2.69	1.99	3.33	1.34	1.93	1.40	1.00	0.97	2.67	2.50
11	5.81	3.97	2.15	1.80	3.06	2.73	1.63	1.15	1.25	0.94	1.98	2.11
12	6.18	4.65	2.89	2.76	2.44	3.48	2.74	1.04	1.02	1.16	1.76	1.81
13	3.65	6.37	2.64	2.55	3.00	2.91	2.41	0.92	1.00	1.02	1.64	1.56
14	4.41	6.73	2.04	1.74	2.45	3.02	1.28	0.91	0.97	1.22	2.13	2.45
15	3.43	5.66	1.93	1.27	2.46	2.45	1.39	1.27	0.92	1.29	2.31	3.00
16	3.00	4.87	1.84	1.16	2.45	1.53	1.39	1.10	1.27	1.56	2.54	2.43
17	2.45	4.94	1.72	2.27	2.02	1.09	1.15	1.22	1.13	1.91	2.45	1.74
18	2.43	5.01	1.35	2.53	2.10	1.21	1.02	1.08	0.95	1.50	2.32	1.76
19	2.40	4.90	2.43	2.13	1.43	1.96	3.81	1.11	0.86	1.21	1.62	1.48
20	2.31	4.65	2.45	1.03	2.06	1.68	5.08	1.15	0.79	1.21	1.49	1.47
21	2.34	4.28	2.13	0.94	1.94	1.37	3.30	1.16	0.75	1.38	1.45	2.05
22	2.94	3.52	1.85	0.91	1.02	1.45	3.13	1.06	0.84	1.21	1.17	2.38
23	3.63	3.15	1.62	1.51	1.13	1.38	1.83	0.73	0.73	1.15	1.14	3.05
24	3.32	3.60	1.06	1.93	1.96	1.24	1.33	1.08	0.79	1.08	1.15	2.75
25	4.44	4.60	1.37	1.46	1.94	1.04	1.57	1.01	0.94	1.05	1.17	2.03
26	3.37	3.87	2.24	1.23	2.04	1.00	2.18	1.01	0.81	1.09	1.27	1.74
27	3.60	3.36	2.83	1.86	2.18	1.25	2.12	1.04	1.01	1.13	1.12	1.92
28	2.60	5.27	3.27	0.95	3.07	1.18	2.09	0.97	1.01	1.41	1.15	1.92
29	2.31	-	2.27	0.83	3.49	1.12	1.66	0.99	0.82	2.18	1.18	2.07
30	2.09	-	2.29	1.59	4.48	1.03	1.36	1.07	0.94	2.14	1.40	2.40
31	1.88	-	2.19	-	3.06	-	1.15	1.15	-	1.81	-	2.08
Mean	3.35	3.85	2.43	1.98	2.26	2.10	1.82	1.21	0.97	1.27	1.87	1.98
Min.	1.79	1.83	1.06	0.83	1.02	1.00	0.48	0.73	0.73	0.94	1.12	1.29
Max.	6.18	6.73	5.33	4.20	4.48	6.23	5.08	2.78	1.27	2.18	3.10	3.31
Annual Mean :	2.09 (m)											

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	238	111	1,091	163	102	165	26	30	41	26	123	94
2	138	155	855	140	32	1,507	55	21	33	30	266	78
3	105	392	376	157	177	571	42	16	26	30	173	70
4	657	248	292	664	129	277	23	98	38	38	87	55
5	789	189	167	425	107	290	16	90	29	38	70	63
6	480	207	157	296	136	423	3	30	23	30	185	52
7	622	146	120	218	118	222	17	277	26	33	260	52
8	654	196	192	404	175	140	64	184	24	25	296	50
9	565	268	415	175	140	99	321	99	21	28	349	402
10	742	258	258	134	407	54	125	60	27	25	254	220
11	1,305	590	158	107	340	266	85	38	46	23	132	152
12	1,483	822	301	272	209	447	268	30	28	39	102	108
13	494	1,578	248	230	326	305	203	22	27	28	87	77
14	736	1,768	141	99	211	330	49	21	25	44	155	211
15	433	1,236	125	48	213	211	59	48	22	50	185	326
16	326	905	112	39	211	74	59	34	48	77	228	207
17	211	932	96	178	150	33	38	44	36	122	211	99
18	207	960	55	226	138	43	28	33	24	71	187	102
19	201	916	207	155	63	129	541	35	18	43	84	68
20	185	822	211	29	144	91	988	38	15	43	70	67
21	191	691	155	23	126	57	399	39	13	58	65	143
22	312	458	114	21	28	65	357	31	17	43	39	198
23	489	362	84	72	36	58	111	12	12	38	37	338
24	404	480	31	125	129	45	53	33	15	33	38	270
25	746	803	57	66	126	30	78	28	23	30	39	140
26	417	559	173	44	141	27	163	28	16	33	48	99
27	480	415	288	115	163	46	154	30	28	36	36	123
28	240	1,066	392	24	342	40	149	25	28	61	38	123
29	185	-	178	17	450	36	89	26	16	163	40	146
30	149	-	182	81	760	29	56	32	23	157	60	201
31	118	-	165	-	340	-	38	38	-	108	-	147
Mean	461	626	239	158	199	204	150	50	26	52	131	145
Min.	105	111	17	17	28	27	3	12	12	23	36	50
Max.	1,483	1,768	1,091	664	760	1,507	988	277	48	163	349	402
Annual Mean :	203 (m <sup>3</sup> /sec)											
Annual Total :	6,332 (10 <sup>6</sup> m <sup>3</sup> )											

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.93	6.60		1.20	3.32	1.49	1.19	0.95	0.89	0.89	1.20	1.81
2	3.85	3.87		1.78	3.28	1.35	1.15	0.92	0.89	1.38	1.10	2.26
3	2.75	3.12		2.27	2.75	1.63	1.16	0.92	0.88	1.26	1.00	3.32
4	2.40	2.20		1.80	1.73	1.60	1.36	0.93	0.91	1.05	0.92	3.71
5	4.05	2.35		2.90		1.36	1.68	0.96	0.90	1.00	0.92	2.96
6	3.93	2.23		3.05		1.44	2.02	0.94	0.89	0.96	0.87	2.11
7	3.35	2.78		3.25		1.27	1.58	0.95	1.14	1.00	0.89	2.19
8	2.37	2.67		3.22		1.19	1.31	0.97	1.08	1.01	1.11	1.52
9	1.85	3.23		4.25		1.12	1.22	0.99	0.92	0.93	0.96	1.43
10	2.28	2.62		4.35	1.11	1.09	1.18	0.99	1.27	0.89	0.90	1.58
11	2.57	2.62		4.27	1.65	0.71	1.13	0.94	1.04	0.89	0.95	1.29
12	2.65	2.32		3.25	1.72	1.00	1.04	0.92	1.05	0.89	0.96	1.41
13	2.70	2.22		3.20	2.45	1.02	1.08	1.33	0.85	0.95	2.01	2.01
14	2.23	2.13		4.20	2.63	0.99	1.09	1.00	1.00	0.85	1.04	3.82
15	2.85	2.20		3.20	1.49	0.98	1.07	0.95	0.93	0.87	1.01	3.38
16	3.30	2.33		2.35	1.33	0.99	1.06	0.95	0.92	0.87	0.99	3.48
17	2.45	2.42		2.30	1.58	1.00	1.02	1.15	0.90	1.08	1.03	2.09
18	4.58	2.38		2.05	1.62	0.98	0.99	1.12	0.89	0.98	0.99	3.21
19	3.62	3.23	3.70	2.05	1.77	0.99	1.00	1.17	0.89	0.89	1.00	4.85
20	5.18	4.28	2.18	2.07	1.22	0.99	0.98	1.21	0.90	0.88	1.52	3.98
21	6.10	4.42	2.35	2.20	1.17	0.98	0.98	1.17	0.91	0.87	1.38	2.33
22	6.15	4.33	3.47	2.20	1.25	0.83	0.99	1.15	0.95	0.86	1.25	4.06
23	6.08	4.33	3.22	2.25	1.85	1.42	1.14	1.20	1.10	0.86	1.05	3.23
24	4.80	4.72	3.18	2.20	1.97	1.81	1.06	1.10	1.00	1.07	1.10	2.91
25	3.65	4.72	3.17	2.13	1.62	2.36	0.99	1.04	0.95	1.68	1.31	2.86
26	4.73		3.13	2.10	1.80	1.70	0.97	0.98	0.95	2.06	1.68	2.26
27	4.70		2.72	2.80	1.73	1.64	0.48	1.12	0.92	1.54	1.38	3.73
28	3.30		2.68	2.77	2.60	1.52	0.97	0.95	1.23	1.20	3.78	3.08
29	2.55	-	2.13	2.25	1.97	1.38	0.97	0.96	0.83	1.21	1.43	3.08
30	3.43	-		3.75	1.70	1.27	0.96	0.90	0.83	1.28	1.97	2.02
31	3.10	-		-	1.98	-	0.95	0.89	-	1.45	-	3.27
Mean	3.56			2.72		1.27	1.12		0.96	1.08	1.14	2.77
Min.	1.85			1.20		0.71	0.48		0.83	0.85	0.87	1.29
Max.	6.15			4.35		2.36	2.02		1.33	2.06	1.97	4.85
Annual Mean :	(m)											
Annual Mean :	(m <sup>3</sup> /sec)											Annual Total : (10 <sup>6</sup> m <sup>3</sup> )

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	310	1,698		42	404	70	41	24	20	20	42	108
2	553	559		104	394	55	38	22	20	20	58	34
3	270	354		178	270	85	39	22	19	47	27	404
4	201	167		107	98	82	56	22	21	30	22	512
5	615	192		303		56	91	24	21	27	22	317
6	578	172		338		64	138	23	20	24	19	152
7	412	277		386		48	80	24	37	27	20	165
8	196	254		379		41	52	25	26	28	35	73
9	114	381		681		36	44	26	22	22	24	63
10	180	244		715	35	33	40	26	48	20	21	80
11	234	244		687	88	11	36	23	30	20	24	50
12	250	187		386	96	27	30	22	30	20	24	61
13	260	170		374	211	28	33	53	18	24	136	136
14	172	155		664	246	26	33	27	18	30	544	544
15	292	167		374	70	26	32	24	22	19	28	420
16	399	189		192	53	26	31	24	22	19	26	447
17	211	205		184	80	27	28	38	21	33	29	149
18	796	198		143	84	26	26	36	20	26	26	376
19	486	381	509	143	103	26	27	39	20	20	27	897
20	1,029	691	163	146	44	26	26	43	21	19	73	593
21	1,443	739	192	167	39	26	26	39	21	19	58	189
22	1,468	708	444	167	46	17	26	38	24	18	46	618
23	1,433	708	379	175	114	62	37	42	34	18	30	381
24	878	848	369	167	131	108	31	34	27	32	34	305
25	494	848	367	155	84	194	26	30	24	91	52	294
26	851		357	150	107	94	25	26	24	144	91	177
27	840		264	281	98	87	3	36	22	75	58	517
28	399		256	275	240	73	25	24	21	44	42	532
29	230		155	175	131	58	25	24	17	43	63	345
30	433		523	94	48	48	24	21	17	49	131	138
31	349		132			-	24	20	65	-	392	392
Mean	528			292		53	38		25	36	39	310
Min.	114			42		11	3		17	18	19	50
Max.	1,468			715		194	138		53	144	131	897
Annual Mean :	(m <sup>3</sup> /sec)											Annual Total : (10 <sup>6</sup> m <sup>3</sup> )



**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	3.80	2.44	4.46	2.30	3.25	1.15	1.02	0.90	0.86	0.85	0.90	1.41
2	4.21	2.78	4.45	3.21	3.40	1.17	1.02	0.90	0.88	0.85	0.88	1.51
3	4.03	2.42	3.71	2.98	2.12	1.23	1.02	0.90	0.88	0.85	0.86	3.18
4	3.05	4.33	4.08	3.33	1.75	1.23	1.02	0.90	0.89	0.85	0.89	2.99
5	3.20	4.39	3.01	3.90	1.57	1.25	1.02	0.90	0.89	0.85	1.01	2.35
6	2.81	4.73	2.00	2.92	1.63	1.20	1.00	0.90	0.89	0.85	1.33	3.85
7	3.13	5.00	2.00	3.37	1.50	1.10	1.00	0.89	0.88	0.85	0.99	3.48
8	2.76	3.10	2.28	3.63	1.40	1.06	1.00	0.90	0.88	0.85	0.92	3.69
9	3.05	4.69	2.85	2.10	1.40	1.00	1.00	0.90	0.87	0.85	0.89	3.16
10	4.07	4.28	2.70	1.66	1.41	1.00	1.00	0.88	0.86	0.85	1.16	2.60
11	4.90	5.71	2.47	2.53	1.55	1.02	1.00	0.88	0.86	0.86	1.18	1.80
12	3.26	6.71	2.21	2.50	1.45	1.00	1.00	0.88	0.86	0.87	1.26	2.91
13	4.63	6.42	2.08	1.52	1.42	1.00	1.00	0.88	0.86	0.87	1.50	2.71
14	4.87	7.43	2.03	2.18	1.40	1.02	0.98	0.87	0.85	0.87	1.51	2.43
15	4.91		2.11	1.70	1.38	1.02	0.95	0.88	0.85	0.87	1.15	2.13
16	3.25	5.50	2.13	2.28	1.37	1.02	0.95	0.90	0.85	0.89	1.14	1.78
17	2.66	4.98	2.78	2.10	1.27	1.02	0.95	0.89	0.85	0.89	1.41	1.34
18	3.96	4.74	2.53	2.10	1.25	1.02	0.98	0.87	0.85	0.89	1.43	1.16
19	4.55	4.95	2.55	2.68	1.21	1.02	0.95	0.86	0.85	0.90	1.33	1.05
20	3.17	5.03	2.48	2.30	1.25	1.02	0.94	0.86	0.85	0.90	1.24	2.26
21	4.06	4.85	2.63	2.15	1.10	1.02	0.90	0.87	0.85	0.88	2.13	2.33
22	3.86	4.77	1.91	3.32	1.10	1.02	0.90	0.87	0.85	0.87	2.55	2.11
23	3.85	4.79	1.75	3.35	1.15	1.02	0.90	0.87	0.85	0.86	2.18	1.88
24	4.75	4.04	1.38	3.68	1.10	1.02	0.90	0.87	0.86	0.86	2.06	1.38
25	4.57	3.79	1.38	3.18	1.15	1.02	0.90	0.87	0.85	0.86	2.04	1.93
26	3.13	3.58	1.32	2.58	1.21	1.02	0.90	0.87	0.85	1.19	1.94	4.26
27	2.16	4.75	1.20	2.05	1.20	1.02	0.92	0.87	0.85	1.05	1.55	2.88
28	1.90	5.17	1.13	2.03	1.20	1.02	0.92	0.85	0.85	0.90	3.53	3.95
29	1.90	-	1.10	2.51	1.20	1.02	0.91	0.85	0.85	0.86	2.51	3.26
30	2.84	-	1.20	2.05	1.20	1.02	0.90	0.85	0.85	0.89	1.99	2.65
31	2.36	-	2.30	-	1.15	1.02	0.90	0.85	-	0.92	-	2.54
Mean	3.54		2.33	2.61	1.48	1.06	0.96	0.88	0.86	0.86	1.52	2.48
Min.	1.90		1.10	1.52	1.10	1.00	0.90	0.85	0.85	0.85	0.86	1.05
Max.	4.91		4.46	3.90	3.40	1.25	1.02	0.90	0.89	1.19	3.53	4.26

Annual Mean : (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	538	209	753	184	386	31	21	14	12	12	14	55
2	667	277	750	376	425	32	21	14	13	12	13	66
3	609	205	512	321	154	38	21	14	13	12	12	369
4	338	708	625	407	100	38	21	14	14	12	14	324
5	374	729	328	568	74	39	21	14	14	12	21	192
6	283	851	135	308	81	35	20	14	14	12	47	553
7	357	956	135	417	65	27	20	14	13	12	19	447
8	272	349	180	489	54	24	20	14	13	12	15	506
9	338	836	292	150	54	20	20	14	13	12	14	364
10	622	691	260	89	55	20	20	13	12	12	32	240
11	916	1,259	214	226	71	21	20	13	12	12	33	107
12	389	1,757	168	220	60	20	20	13	12	12	33	40
13	814	1,604	147	68	56	20	20	13	12	13	65	262
14	905	2,166	140	163	54	21	19	13	12	13	66	207
15	920		152	94	52	21	17	13	12	13	31	155
16	386	1,165	155	180	51	21	17	14	12	14	30	104
17	252	948	277	150	41	21	17	14	12	14	55	48
18	587	855	226	150	39	21	19	13	12	14	57	32
19	785	936	230	256	36	21	17	12	12	14	47	23
20	367	968	216	184	39	21	16	12	12	14	38	177
21	618	897	246	158	27	21	14	13	12	13	155	189
22	556	866	122	404	27	21	14	13	12	13	230	152
23	553	874	100	412	31	21	14	13	12	12	163	118
24	859	612	52	503	27	21	14	13	12	12	144	52
25	792	535	52	369	31	21	14	13	12	12	141	125
26	357	474	46	236	36	21	14	13	12	34	126	684
27	160	859	35	143	35	21	15	13	12	23	71	299
28	120	1,025	29	140	35	21	15	12	12	14	461	584
29	120	-	27	222	35	21	15	12	12	12	222	389
30	290	-	35	143	35	21	14	12	12	14	134	250
31	194	-	184	-	31	-	14	12	15	-	-	228
Mean	495		220	258	74	24	18	13	12	14	84	245
Min.	120		27	68	27	20	14	12	12	12	12	23
Max.	920		753	568	425	39	21	14	14	34	461	684

Annual Mean : (m<sup>3</sup>/sec)

Annual Total : (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)												Annual Mean : (m)
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	2.51	2.83	2.16	3.41	2.35	3.30	0.98	0.86	3.83	1.11	1.67	4.60	
2	2.73	2.91	1.95	4.71	2.23	3.13	0.97	0.89	2.12	1.17	1.95	2.96	
3	2.45	3.96	2.18	3.35	2.10	2.55	1.00	1.21	1.70	1.43	2.10	4.90	
4	2.45	2.58	2.00	4.76	1.81	1.82	1.25	1.33	1.60	1.31	1.74	3.96	
5	1.90	3.43	1.70	4.46	1.93	1.63	1.53	1.20	1.73	1.18	1.35	4.93	
6	1.53	2.95	2.78	3.21	1.70	1.64	1.17	1.08	2.15	1.24	1.23	3.76	
7	1.43	3.48	3.71	2.53	1.55	2.07	1.04	1.02	2.18	1.16	1.22	2.48	
8	2.00	3.33	2.91	2.23	1.29	3.42	1.07	1.00	2.35	1.49	1.24	2.01	
9	2.89	4.16	2.65	2.31	1.23	2.65	1.12	0.95	2.01	1.77	1.15	1.76	
10	3.06	3.55	3.15	2.81	1.18	1.72	1.07	0.90	1.71	2.90	1.16	4.68	
11	3.23	2.35	3.53	3.51	1.15	1.79	1.03	0.87	1.33	2.37	1.30	4.25	
12	4.80	2.23	3.42	2.51	1.19	1.42	1.01	0.87	1.30	2.31	1.83	3.00	
13	3.49	3.56	3.45	2.43	1.16	1.35	1.00	0.87	1.30	1.55	1.74	2.83	
14	3.09	4.86	4.31	2.38	1.24	1.26	1.00	0.86	1.42	1.63	1.45	2.60	
15	2.90	2.86	3.63	2.40	1.68	1.19	1.00	0.86	1.42	1.56	1.36	3.21	
16	2.86	2.83	4.76	2.53	1.81	1.14	0.99	0.85	1.31	1.38	1.98	5.28	
17	2.50	3.50	5.16	5.71	1.43	1.12	0.97	0.85	1.32	1.47	3.14	3.81	
18	2.14	3.66	5.30	4.81	1.22	1.10	0.95	0.85	1.30	1.39	4.45	2.55	
19	1.91	3.45	4.05	4.53	1.55	1.10	0.95	0.85	1.20	1.24	3.33	2.12	
20	2.35	5.40	4.00	3.53	1.12	1.09	0.95	0.86	1.14	1.46	2.35	1.85	
21	2.25	4.11	3.61	4.30	1.06	1.15	0.94	0.86	1.13	1.50	2.23	1.72	
22	2.25	5.20	3.18	3.66	1.08	1.14	0.93	1.06	1.09	1.39	2.21	1.63	
23	3.86	3.20	2.86	3.00	1.08	1.12	0.92	1.50	1.05	1.24	3.28	1.57	
24	4.33	2.23	2.93	3.35	1.08	1.09	0.90	1.48	1.05	1.24	2.64	2.22	
25	3.10	1.93	2.60	3.48	1.12	1.03	0.90	1.22	1.49	1.40	2.75	2.31	
26	2.85	1.71	3.19	2.56	1.37	1.02	0.88	1.43	1.64	2.10	2.86	2.36	
27	4.21	1.70	2.48	3.30	2.06	1.00	0.85	2.25	1.29	2.98	3.71	1.91	
28	3.48	2.31	2.00	2.46	1.57	1.00	0.84	2.07	1.18	1.96	3.10	1.66	
29	2.71	-	1.90	2.05	2.09	1.04	0.84	2.81	1.12	2.00	2.55	2.43	
30	3.41	-	3.21	2.11	3.41	0.99	0.84	4.11	1.12	2.30	4.35	2.60	
31	2.78	-	8.00	-	2.88	-	0.85	-	-	2.00	-	1.91	
Mean	2.82	3.22	3.31	3.28	1.60	1.57	0.99		1.55	1.65	2.25	2.90	
Min.	1.43	1.70	1.70	2.05	1.06	0.99	0.84		1.05	1.11	1.15	1.57	
Max.	4.80	5.40	8.00	5.71	3.41	3.42	1.53		3.83	2.98	4.45	5.28	

Annual Mean : (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)												Annual Total : (10 <sup>6</sup> m <sup>3</sup> )
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	222	288	160	428	192	399	19	12	547	28	90	803	
2	266	305	128	844	172	357	18	14	154	32	128	317	
3	211	587	163	412	150	230	20	36	94	57	150	916	
4	211	236	135	863	108	109	39	47	77	45	99	587	
5	120	433	94	753	125	81	69	35	98	33	49	928	
6	69	314	277	376	94	87	32	26	158	38	38	526	
7	57	447	512	226	71	146	23	21	163	32	37	216	
8	135	407	305	172	43	431	25	20	192	64	38	136	
9	301	651	250	185	38	250	29	17	136	103	31	102	
10	340	466	362	283	33	96	25	14	95	303	32	833	
11	381	192	461	455	31	105	22	13	47	196	44	681	
12	878	172	431	222	34	56	21	13	44	185	111	326	
13	450	469	439	207	32	49	20	13	44	71	99	288	
14	347	901	701	198	38	40	20	12	56	81	60	240	
15	303	294	489	201	91	34	20	12	56	72	50	376	
16	294	288	863	226	108	30	19	12	45	52	132	1,070	
17	220	452	1,020	1,259	57	29	18	12	46	62	359	541	
18	157	497	1,079	882	37	27	17	12	44	53	750	230	
19	122	439	615	778	71	27	17	12	35	38	407	154	
20	192	1,121	599	461	29	26	17	12	30	61	192	114	
21	175	635	483	698	24	31	16	12	29	65	172	96	
22	175	1,037	369	497	26	30	16	24	26	53	168	81	
23	556	374	294	326	26	29	15	65	23	38	394	74	
24	708	172	310	412	26	26	14	63	23	38	248	170	
25	349	125	240	447	29	22	14	37	64	54	270	185	
26	292	95	371	232	51	21	13	57	87	150	294	194	
27	667	94	216	399	144	20	12	175	43	321	512	122	
28	447	185	135	213	74	20	11	146	33	129	349	89	
29	262	-	120	143	149	23	11	283	29	135	230	207	
30	428	-	376	152	428	19	11	635	29	184	715	240	
31	277	-	2,521	-	299	-	12	-	-	135	-	122	
Mean	310	417	468	432	91	95	20		85	94	208	354	
Min.	57	94	94	143	24	19	11		23	28	31	74	
Max.	878	1,121	2,521	1,259	428	431	69		547	321	750	1,070	

Annual Mean : (m<sup>3</sup>/sec)

Annual Total : (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	2.14	3.48	2.20	4.78	2.17	1.68	1.29	1.03	1.02	1.19	1.21	2.65
2	3.38	2.85	2.15	4.51	3.10	1.64	1.28	1.03	1.02	1.20	1.20	3.95
3	2.62	2.78	2.21	4.78	3.91	1.61	1.25	1.04	1.03	1.20	1.20	4.49
4	2.17	6.41	2.28	4.53	2.40	1.57	1.25	1.04	1.03	1.19	1.20	2.87
5	2.35	6.58	2.43	3.63	2.13	1.53	1.25	1.06	1.03	1.19	1.19	2.49
6	2.22	7.20	2.45	4.88	2.16	1.57	1.25	1.06	1.03	1.19	1.19	2.26
7	3.99	7.01	2.27	4.35	2.21	1.64	1.24	1.06	1.03	1.19	1.19	3.56
8	3.15	6.06	2.18	3.78	2.12	1.80	1.24	1.05	1.07	1.19	1.20	3.09
9	2.93	4.28	2.15	3.45	1.98	2.21	1.24	1.05	1.03	1.20	1.20	3.24
10	3.42	3.16	2.27	5.05	1.89	1.82	1.20	1.05	1.03	1.21	1.44	2.74
11	2.91	2.83	2.85	4.75	1.86	1.79	1.21	1.05	1.02	1.20	1.43	2.52
12	3.52	2.93	3.88	4.43	1.69	3.85	1.19	1.05	1.02	1.20	1.39	3.06
13	4.90	2.71	3.66	3.90	1.63	2.91	1.19	1.05	1.02	1.21	2.25	3.34
14	3.06	2.45	4.45	3.73	1.65	2.33	1.18	1.06	1.02	1.23	2.74	2.97
15	2.05	2.31	3.80	4.43	1.59	2.32	1.15	1.06	1.02	1.24	2.60	2.52
16	2.13	2.23	3.00	3.51	1.57	2.37	1.15	1.06	1.02	1.24	2.60	1.83
17	2.86	2.31	2.46	2.46	1.54	2.22	1.14	1.05	1.02	1.27	2.57	1.73
18	2.65	3.28	3.38	2.98	1.52	3.36	1.12	1.05	1.02	1.33	2.13	1.75
19	4.21	3.06	4.36	2.60	1.50	3.16	1.12	1.06	1.02	1.48	2.00	2.05
20	3.46	2.61	2.83	2.46	1.50	2.73	1.12	1.05	1.03	1.37	2.63	2.74
21	2.93	3.33	2.91	2.45	1.47	2.52	1.10	1.05	1.03	1.35	2.28	2.79
22	5.46	2.95	4.16	2.58	1.45	2.46	1.09	1.04	1.03	1.34	2.43	2.81
23	5.49	2.73	3.20	2.36	1.49	2.51	1.09	1.03	1.04	1.30	3.25	4.19
24	5.38	2.55	2.83	2.28	1.49	2.35	1.09	1.03	1.04	1.32	2.77	3.08
25	4.44	2.43	3.46	2.23	1.46	2.24	1.09	1.03	1.05	1.25	3.15	2.75
26	4.36	2.65	3.60	2.18	1.48	2.07	1.07	1.02	1.05	1.24	2.77	2.37
27	4.38	2.72	2.95	2.12	1.53	1.83	1.07	1.02	1.05	1.24	2.30	2.14
28	5.05	2.45	3.11	2.06	1.54	1.56	1.05	1.02	1.04	1.24	2.78	1.65
29	5.75	-	3.81	1.95	1.78	1.40	1.05	1.02	1.04	1.23	2.43	1.57
30	7.33	-	4.05	2.00	1.92	1.33	1.05	1.02	1.05	1.23	2.93	1.53
31	2.78	-	3.61	-	1.72	-	1.04	1.02	-	1.23	-	1.65
Mean	3.66	3.51	3.06	3.37	1.85	2.15	1.16	1.04	1.03	1.25	1.25	2.66
Min.	2.05	2.23	2.15	1.95	1.45	1.33	1.04	1.02	1.02	1.19	1.19	1.53
Max.	7.33	7.20	4.45	5.05	3.91	3.85	1.29	1.06	1.07	1.48	1.48	4.49
Annual Mean :	(m)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	157	447	167	870	162	91	43	22	21	34	36	250
2	420	292	158	771	349	87	42	22	21	35	35	584
3	244	277	168	870	571	79	39	23	22	35	35	764
4	162	1,599	180	778	201	74	39	23	22	34	35	296
5	192	1,687	207	489	155	69	39	24	22	34	34	218
6	170	2,031	211	909	160	74	39	24	22	34	34	177
7	596	1,922	178	715	168	87	38	24	22	34	34	469
8	362	1,424	163	532	154	107	38	23	25	34	35	347
9	310	691	158	439	132	168	38	23	22	35	35	384
10	431	364	178	976	119	109	35	23	22	36	58	268
11	305	288	292	859	115	105	36	23	21	35	57	224
12	458	310	562	742	93	553	34	23	21	35	53	340
13	916	262	497	568	81	305	34	23	21	36	175	410
14	340	211	750	517	88	189	33	24	21	38	268	319
15	143	185	538	742	76	187	31	24	21	38	240	224
16	155	172	326	455	74	196	31	24	21	38	240	111
17	294	185	213	213	70	170	30	23	21	41	234	98
18	250	394	420	321	68	415	29	23	21	47	155	100
19	667	340	718	240	65	364	29	24	21	63	135	143
20	441	242	288	213	65	266	29	23	22	51	246	268
21	310	407	305	211	62	224	27	23	22	49	180	279
22	1,147	314	651	236	60	213	26	23	22	48	207	283
23	1,161	266	374	194	64	222	26	22	23	44	386	661
24	1,113	230	288	180	64	192	26	22	23	46	275	345
25	746	207	441	172	61	173	26	22	23	39	362	270
26	718	250	480	163	63	146	25	21	23	38	275	196
27	725	264	314	154	69	111	25	21	23	38	184	157
28	976	211	352	144	70	72	23	21	23	38	277	88
29	1,277	-	541	128	104	54	23	21	23	38	207	74
30	2,107	-	615	135	123	47	23	21	23	38	310	69
31	277	-	483	-	96	-	23	21	23	38	-	88
Mean	567	552	362	464	123	172	32	23	22	39	39	274
Min.	143	172	158	128	60	47	23	21	21	34	69	69
Max.	2,107	2,031	750	976	571	553	43	24	25	63	63	764
Annual Mean :	(m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1	1.73	2.47	4.23	3.06	1.56	1.18	1.15	1.13	1.07	1.05	1.16	2.24
2	2.04	4.86	3.66	2.75	1.52	1.18	1.15	1.12	1.06	1.05	1.20	2.15
3	0.97	4.68	3.28	4.89	1.49	1.18	1.15	1.10	1.06	1.05	1.19	1.74
4	2.06	6.00	5.23	6.48	1.49	1.18	1.15	1.14	1.06	1.05	1.39	1.61
5	2.13	5.23	5.20	5.53	2.05	1.18	1.15	1.12	1.06	1.05	2.11	1.50
6	2.17	3.68	4.93	2.83	2.11	1.18	1.15	1.12	1.05	1.05	1.87	2.05
7	2.25	3.32	5.93	2.42	1.57	1.19	1.15	1.12	1.05	1.05	1.72	3.54
8	2.53	3.14	6.75	2.12	1.50	1.18	1.15	1.10	1.05	1.06	1.51	4.62
9	3.60	3.58	6.50	2.20	1.49	1.18	1.15	1.10	1.05	1.06	1.22	2.98
10	5.33	3.28	5.46	2.64	1.48	1.18	1.15	1.10	1.05	1.06	1.15	3.58
11	4.46	4.06	4.80	2.75	1.40	1.18	1.15	1.10	1.05	1.06	1.61	3.10
12	3.45	3.77	6.87	3.01	1.84	1.18	1.15	1.10	1.05	1.07	1.22	2.38
13	2.48	3.95	6.28	2.07	2.13	1.18	1.15	1.09	1.05	1.07	1.15	2.27
14	3.47	5.08	4.58	3.26	1.81	1.18	1.15	1.09	1.05	1.10	1.30	2.35
15	3.23	3.37	4.45	3.95	1.47	1.18	1.15	1.09	1.05	1.10	1.61	2.14
16	5.35	2.59	4.92	3.49	1.38	1.17	1.15	1.09	1.05	1.10	1.25	2.96
17	6.59	3.09	3.61	2.82	1.34	1.17	1.15	1.09	1.05	1.10	1.22	2.28
18	3.81	2.64	3.25	2.34	1.27	1.16	1.15	1.09	1.05	1.10	1.22	2.05
19	3.90	3.93	5.36	2.06	1.24	1.16	1.15	1.09	1.05	1.10	1.75	1.73
20	3.32	3.95	6.81	2.21	1.19	1.16	1.15	1.09	1.05	1.10	2.52	1.34
21	3.22	2.85	4.84	2.12	1.19	1.16	1.15	1.09	1.05	1.10	1.94	1.32
22	2.78	2.51	3.53	2.07	1.19	1.16	1.15	1.08	1.05	1.10	1.97	2.10
23	3.29	3.93	6.36	2.00	1.19	1.16	1.15	1.07	1.05	1.10	1.77	1.59
24	3.68	4.08	6.88	2.01	1.19	1.15	1.15	1.07	1.05	1.10	1.77	1.27
25	2.69	3.97	7.01	2.33	1.19	1.15	1.15	1.07	1.05	1.10	1.49	1.10
26	2.83	4.26	6.13	2.21	1.19	1.15	1.15	1.07	1.05	1.10	1.70	1.08
27	2.78	4.78	5.38	2.76	1.18	1.15	1.15	1.07	1.05	1.10	1.73	1.08
28	4.56	5.16	4.33	2.71	1.18	1.15	1.15	1.07	1.05	1.10	2.11	1.08
29	4.64	-	4.83	2.03	1.18	1.15	1.15	1.07	1.05	1.10	2.77	1.08
30	6.32	-	4.46	2.73	1.18	1.15	1.15	1.07	1.05	1.12	2.56	1.10
31	4.58	-	3.86	-	1.18	-	1.15	1.07	-	1.15	-	1.41
Mean	3.42	3.86	5.15	2.77	1.43	1.17	1.15	1.09	1.05	1.05	1.64	2.03
Min.	0.97	2.47	3.25	0.31	1.18	1.15	1.15	1.07	1.05	1.05	1.15	1.08
Max.	6.59	6.00	7.01	6.48	2.13	1.19	1.15	1.14	1.07	1.15	2.77	4.62

Annual Mean : 2.15 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )												
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	98	214	674	340	72	33	33	31	29	25	23	32	173
2	141	901	497	270	68	33	33	31	29	24	23	35	158
3	18	833	394	912	64	33	33	31	27	24	23	34	99
4	144	1,395	1,049	1,635	64	33	33	31	30	24	23	53	79
5	155	1,049	1,037	1,178	143	33	33	31	29	24	23	152	65
6	162	503	928	288	152	33	33	31	29	23	23	116	143
7	175	404	1,361	205	74	34	34	31	29	23	23	96	463
8	226	359	1,778	154	65	33	33	31	27	23	24	66	811
9	480	474	1,645	167	64	33	33	31	27	23	24	37	321
10	1,091	394	1,147	248	63	33	33	31	27	23	24	31	474
11	753	618	878	270	54	33	33	31	27	23	24	79	349
12	412	529	1,844	0	112	33	33	31	27	23	25	37	198
13	216	584	1,533	146	155	33	33	31	26	23	25	31	178
14	444	988	796	389	108	33	33	31	26	23	27	44	192
15	381	417	750	584	62	33	33	31	26	23	27	79	157
16	1,100	238	924	450	52	32	32	31	26	23	27	39	317
17	1,693	347	483	285	48	32	32	31	26	23	27	37	180
18	541	248	386	191	41	32	32	31	26	23	27	37	143
19	568	578	1,104	144	38	32	32	31	26	23	27	100	98
20	404	584	1,811	168	34	32	32	31	26	23	27	224	48
21	379	292	893	154	34	32	32	31	26	23	27	126	46
22	277	222	461	146	34	32	32	31	26	23	27	131	150
23	397	579	1,573	135	34	32	32	31	25	23	27	103	76
24	503	625	1,850	136	34	31	31	31	25	23	27	103	41
25	258	590	1,922	189	34	31	31	31	25	23	27	64	27
26	288	684	1,458	168	34	31	31	31	25	23	27	94	26
27	277	870	1,113	272	33	31	31	31	25	23	27	98	26
28	789	1,020	708	262	33	31	31	31	25	23	27	152	26
29	818	-	889	140	33	31	31	31	25	23	27	275	26
30	1,553	-	753	266	33	31	31	31	25	23	29	232	27
31	796	-	556	-	33	-	-	-	-	-	-	-	55
Mean	501	591	1,071	330	61	32	31	31	26	24	26	91	167
Min.	18	214	366	0	33	31	31	31	25	23	23	31	26
Max.	1,693	1,395	1,922	1,635	155	34	31	31	30	25	31	275	811

Annual Total : 7,709 (10<sup>6</sup> m<sup>3</sup>)

Annual Mean : 246 (m<sup>3</sup>/sec)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.23	4.70	4.15	2.68	3.66	1.46	1.46	1.25	1.11	1.25	1.56	3.75
2	2.41	4.60	5.12	2.96	3.28	1.24	1.19	1.25	1.11	1.10	1.68	2.60
3	3.33	5.74	6.13	2.66	2.35	1.22	1.14	1.25	1.10	1.10	1.66	2.95
4	3.41	6.84	4.88	2.44	2.04	1.22	1.14	1.25	1.10	1.10	1.88	2.35
5	2.99	4.82	4.30	2.34	2.19	1.22	1.14	1.25	1.09	1.10	1.83	2.05
6	2.99	5.38	3.56	3.68	1.86	1.22	1.14	1.25	1.08	1.10	2.19	3.35
7	3.99	4.23	3.72	4.91	1.69	1.40	1.15	1.22	1.08	1.10	1.92	3.26
8	3.26	4.31	4.65	3.55	1.68	1.94	1.16	1.22	1.08	1.10	3.20	4.20
9	2.69	3.50	3.63	2.68	1.89	3.15	1.16	1.22	1.08	1.10	2.66	3.46
10	4.09	2.96	2.93	2.91	1.77	2.34	1.19	1.22	1.08	1.10	2.44	5.60
11	5.45	4.01	4.05	2.28	3.34	1.86	1.20	1.22	1.08	1.19	2.50	5.20
12	4.92	6.39	2.96	2.05	2.88	1.84	1.20	1.22	1.09	1.18	2.29	4.46
13	4.01	6.27	2.66	1.96	2.42	1.82	1.23	1.08	1.13	1.19	3.25	4.96
14	2.95	5.58	3.31	1.92	1.97	1.76	1.24	1.08	1.14	1.39	3.27	4.10
15	2.54	4.59	3.14	1.80	1.73	1.65	1.24	1.08	1.16	1.89	2.77	3.68
16	1.90	3.33	4.01	2.68	1.56	1.93	1.25	1.08	1.16	1.71	5.76	3.71
17	1.74	4.10	4.28	3.69	1.45	1.70	1.25	1.11	1.08	2.63	5.77	3.72
18	1.74	2.81	4.51	3.43	1.78	1.54	1.25	1.12	1.10	2.29	4.77	3.18
19	1.98	3.02	5.20	2.82	1.84	1.75	1.61	1.12	1.09	2.22	3.50	3.06
20	2.37	4.61	4.78	2.62	1.71	2.50	1.26	1.12	1.08	2.15	3.65	2.78
21	3.21	3.70	3.17	2.24	2.66	2.75	1.25	1.12	1.05	1.28	5.72	2.71
22	5.24	2.78	2.76	1.80	1.87	3.70	1.26	1.12	1.08	1.93	5.03	2.80
23	3.53	3.83	4.91	1.59	1.75	3.89	1.29	1.12	1.08	1.77	3.88	2.76
24	3.48	3.65	4.43	1.56	1.54	2.41	1.30	1.12	1.10	2.18	3.55	2.63
25	4.98	5.30	3.71	1.67	1.55	2.34	1.34	1.12	1.10	2.68	3.25	2.65
26	3.71	3.99	3.24	1.58	1.51	1.77	1.48	1.12	1.11	2.34	4.32	2.53
27	3.73	4.70	3.88	1.44	1.51	1.82	1.35	1.10	1.12	1.73	4.70	2.44
28	4.20	5.04	2.91	1.48	1.20	2.08	1.28	1.10	1.18	1.54	4.08	2.17
29	3.13	-	2.76	1.65	1.20	1.90	1.23	1.10	1.16	1.73	3.32	2.18
30	2.69	-	4.18	3.72	1.20	1.72	1.18	1.11	1.11	1.54	3.63	2.04
31	2.70	-	3.80	-	1.23	-	1.12	1.12	-	1.50	-	1.88
Mean	3.25	4.46	3.93	2.47	1.95	1.97	1.25	1.16	1.10	1.59	3.36	3.20
Min.	1.23	2.78	2.66	1.44	1.20	1.22	1.12	1.08	1.05	1.10	1.56	1.88
Max.	5.45	6.84	6.13	4.91	3.66	3.89	1.61	1.25	1.18	2.68	5.77	5.60
Annual Mean :	2.47 (m)											

Annual Mean : 2.47 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	41	892	652	193	469	67	67	43	30	43	80	500
2	138	846	1,102	260	348	42	37	43	30	29	98	176
3	363	1,451	1,696	189	128	40	32	43	29	29	95	257
4	387	2,189	979	144	78	40	32	43	29	29	131	128
5	267	950	713	126	101	40	32	43	28	29	122	80
6	267	1,243	435	476	128	40	32	43	27	29	101	369
7	589	684	490	994	99	60	33	40	27	29	138	342
8	342	718	869	432	98	142	34	40	27	29	562	672
9	196	416	459	193	133	310	34	40	27	29	189	403
10	628	260	252	247	112	126	37	40	27	29	144	1,368
11	1,282	596	612	115	366	128	38	40	27	37	156	1,144
12	999	1,869	260	80	240	124	38	40	28	36	117	783
13	596	1,788	189	146	140	121	41	27	32	37	339	1,019
14	257	1,356	357	138	148	111	42	27	32	58	345	631
15	164	841	308	117	106	93	42	27	34	133	214	476
16	135	363	596	84	80	140	43	27	34	103	1,463	486
17	112	631	705	479	66	101	43	30	27	182	1,469	490
18	107	223	805	393	114	78	43	31	29	117	926	319
19	150	275	1,144	225	124	109	87	31	28	105	416	286
20	131	850	931	180	103	156	44	31	27	94	465	216
21	327	483	316	109	189	209	43	31	25	46	1,439	200
22	1,166	216	211	117	129	483	44	31	27	140	1,055	221
23	425	529	994	85	109	551	47	31	27	112	547	211
24	409	465	769	80	78	138	48	31	29	99	431	182
25	1,030	1,198	486	96	79	126	53	31	29	193	339	187
26	486	589	336	83	74	112	70	31	30	126	722	162
27	493	892	547	64	74	121	54	29	31	106	892	144
28	672	1,060	247	70	38	84	46	29	36	78	624	97
29	305	-	211	93	38	135	41	29	34	106	360	99
30	196	-	664	490	38	104	36	30	30	78	459	78
31	198	-	518	-	41	-	31	-	72	-	131	-
Mean	415	853	608	217	131	138	43	34	29	76	481	382
Min.	41	216	189	64	38	40	31	27	25	29	80	78
Max.	1,282	2,189	1,696	994	469	551	87	43	36	193	1,469	1,368
Annual Mean :	284 (m <sup>3</sup> /sec)											
Annual Total :	8,832 (10 <sup>6</sup> m <sup>3</sup> )											

Annual Mean : 284 (m<sup>3</sup>/sec)

Annual Total : 8,832 (10<sup>6</sup> m<sup>3</sup>)

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.86	2.99	2.15	1.75	1.35	1.40	1.41	1.03	1.19	1.21	2.30	1.88
2	2.09	2.36	2.64	1.74	1.38	1.36	1.25	1.03	1.19	1.22	2.45	2.09
3	2.53	3.02	2.57	1.87	1.41	1.46	1.23	1.03	1.18	1.81	2.15	2.19
4	2.47	2.70	3.36	1.83	1.43	1.60	1.23	1.03	1.18	1.91	2.04	2.30
5	2.40	3.07	6.06	1.73	1.43	1.42	1.22	0.99	1.18	1.89	2.86	3.77
6	2.44	4.33	3.77	1.75	1.20	1.40	1.22	0.99	1.19	1.37	3.19	4.42
7	2.35	4.59	2.88	1.71	1.20	1.40	1.22	0.98	1.18	1.51	3.25	2.63
8	3.12	3.26	3.56	1.54	1.20	1.40	1.23	0.98	1.19	1.97	3.51	2.21
9	3.24	5.28	4.00	1.39	1.20	1.40	1.23	0.98	1.19	2.01	3.43	3.48
10	2.55	3.81	3.52	1.53	1.19	1.40	1.23	0.99	1.19	1.90	3.31	2.59
11	2.20	4.10	3.58	1.76	1.19	1.39	1.23	2.50	1.18	1.83	2.66	2.35
12	2.32	4.79	3.78	2.50	1.19	1.38	1.24	2.24	1.18	1.55	2.94	2.30
13	3.23	4.03	3.78	1.52	1.03	1.38	1.22	2.09	1.18	1.53	2.89	3.04
14	3.30	3.49	3.94	1.76	1.03	1.50	1.24	1.76	1.18	1.74	2.37	3.44
15	2.78	3.51	5.54	2.69	1.02	1.38	1.23	1.49	1.18	1.93	2.49	2.80
16	2.85	3.34	4.52	3.81	1.21	1.55	1.23	1.46	1.18	2.08	2.71	2.50
17	3.23	3.09	3.75	3.88	1.83	1.38	1.24	1.65	1.18	1.75	3.54	3.13
18	4.21	2.51	2.69	3.24	1.49	1.38	1.25	1.46	1.18	1.77	2.71	4.72
19	3.47	2.60	2.47	2.91	1.41	1.37	1.25	1.29	1.18	1.79	3.10	3.77
20	4.53	3.32	2.74	3.11	1.37	1.37	1.23	1.29	1.18	1.77	3.16	2.50
21	4.41	4.35	2.63	2.69	1.43	1.37	1.22	1.28	1.18	1.80	2.66	2.16
22	3.65	3.44	3.04	2.53	1.51	1.37	1.16	1.29	1.18	2.17	2.57	2.04
23	2.82	4.45	3.81	3.70	1.39	1.37	1.16	1.28	1.22	2.27	2.52	1.93
24	3.66	4.03	4.17	2.56	1.52	1.38	1.16	1.26	1.22	2.11	2.52	1.87
25	4.10	4.15	3.13	1.94	1.69	1.37	1.15	1.25	1.21	2.28	2.52	1.87
26	3.37	5.03	2.88	1.71	1.52	1.37	1.05	1.21	1.20	2.15	3.47	3.26
27	3.48	3.42	2.83	1.60	2.89	1.36	1.05	1.26	1.21	3.08	2.72	2.40
28	3.42	2.71	2.39	1.55	1.94	1.38	1.05	1.43	1.21	2.31	1.88	2.96
29	4.01	2.50	2.31	1.50	1.80	1.37	1.01	1.45	1.21	2.29	1.29	1.91
30	3.05	-	1.95	1.46	1.94	1.39	1.03	1.19	1.21	2.17	1.40	2.07
31	2.84	-	1.84	-	1.61	-	1.03	1.19	-	2.52	-	2.07
Mean	3.10	3.63	3.30	2.18	1.45	1.40	1.19	1.33	1.19	1.93	2.69	2.67
Min.	1.86	2.36	1.84	1.39	1.02	1.36	1.01	0.98	1.18	1.21	1.29	1.87
Max.	4.53	5.28	6.06	3.88	2.89	1.60	1.41	2.50	1.22	3.08	3.54	4.72

Annual Mean : 2.17 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	73	263	100	64	36	39	40	19	27	28	116	75
2	94	122	185	63	38	37	30	19	27	29	132	94
3	163	271	170	74	40	43	29	19	26	69	100	104
4	135	197	362	71	41	53	29	19	26	77	89	116
5	127	283	1,552	62	41	40	29	18	26	76	232	489
6	131	694	489	64	28	39	29	18	27	37	315	730
7	121	801	237	61	28	39	29	18	26	46	331	183
8	296	334	421	48	28	39	29	17	27	83	406	106
9	328	1,123	569	38	28	39	29	17	27	87	382	397
10	167	502	409	48	27	39	29	18	27	77	348	174
11	105	605	428	65	27	38	30	109	26	71	189	121
12	118	889	492	138	27	38	30	109	26	49	251	116
13	325	580	492	47	19	38	29	94	26	48	239	276
14	345	400	547	65	19	46	30	65	26	63	123	385
15	214	406	1,258	195	19	38	29	45	26	79	137	219
16	230	356	771	502	28	49	29	43	26	93	199	138
17	325	288	482	526	71	38	30	56	26	64	415	299
18	647	159	195	328	45	38	30	43	26	66	199	857
19	394	176	135	244	40	37	30	32	26	67	291	489
20	776	350	206	294	37	37	29	32	26	66	307	138
21	726	702	183	195	41	37	29	32	26	68	189	101
22	450	385	276	163	46	37	25	32	26	102	170	89
23	223	742	502	466	38	37	25	32	29	113	161	79
24	453	580	632	169	47	38	25	31	29	96	161	74
25	605	624	299	80	59	37	25	30	28	114	161	74
26	365	1,000	237	61	47	37	20	28	28	100	394	334
27	397	379	226	53	239	37	20	31	28	286	201	127
28	379	199	126	49	80	38	20	41	28	117	75	256
29	572	138	117	46	68	37	18	42	28	115	32	77
30	278	-	81	43	80	38	19	27	28	102	39	92
31	228	-	71	-	53	-	19	27	-	161	-	92
Mean	316	479	395	144	47	39	27	38	27	85	213	223
Min.	73	122	71	38	19	37	18	17	26	28	32	74
Max.	776	1,123	1,552	526	239	53	40	138	29	286	415	857

Annual Total : 5,287 (10<sup>6</sup> m<sup>3</sup>)

Annual Mean : 169 (m<sup>3</sup>/sec)

OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.97	2.23	3.30	1.78	1.88	1.32	0.78	0.81	0.67	0.72	0.87	1.99
2	3.04	2.04	2.55	1.73	1.62	1.30	0.77	0.81	0.68	0.72	0.87	1.62
3	3.05	3.93	2.91	1.73	1.95	0.98	0.78	0.81	0.68	0.72	0.90	1.62
4	2.23	3.59	2.81	1.83	1.65	0.96	0.77	0.82	0.68	0.72	0.96	1.62
5	3.49	4.85	3.85	1.73	1.43	0.96	0.77	0.82	0.68	0.72	0.88	1.62
6	2.46	4.27	4.88	1.73	1.32	0.96	0.77	0.81	0.68	0.72	0.67	1.62
7	1.86	2.77	3.41	1.73	1.31	0.96	0.79	0.81	0.68	0.74	0.66	1.62
8	4.42	4.26	2.46	1.72	1.47	0.98	0.79	0.83	0.68	0.74	0.66	1.20
9	4.06	5.39	2.42	2.34	1.57	0.99	0.79	0.83	0.68	0.74	0.68	1.20
10	3.71	3.55	2.19	2.47	1.83	0.99	0.79	0.80	0.68	0.74	0.74	1.14
11	5.41	2.29	2.47	1.96	2.69	0.99	0.78	0.80	0.68	0.74	0.74	1.20
12	3.22	1.38	2.97	2.50	3.14	1.02	0.78	0.68	0.68	0.74	0.74	1.33
13	2.18	3.07	2.23	2.36	2.41	1.62	0.78	0.68	0.68	0.76	0.74	1.46
14	3.05	4.68	1.96	2.56	1.93	1.08	0.80	0.68	0.68	0.76	0.74	4.20
15	4.51	4.23	1.94	4.00	1.72	1.09	0.80	0.68	0.68	0.74	0.75	2.90
16	3.84	2.54	1.92	2.98	1.77	1.08	0.79	0.68	0.68	0.74	0.77	2.43
17	2.74	2.37	1.91	2.55	1.63	1.09	0.79	0.68	0.68	0.74	0.76	1.76
18	2.52	2.10	1.90	2.77	1.49	1.09	0.80	0.68	0.68	0.74	0.76	1.67
19	3.38	3.75	1.95	2.97	1.44	1.09	0.80	0.68	0.68	0.74	0.76	1.67
20	2.67	3.29	2.06	2.35	1.40	1.09	0.80	0.68	0.68	0.73	0.76	1.64
21	2.58	3.36	1.80	2.28	2.25	1.09	0.80	0.68	0.68	0.72	0.76	1.49
22	2.79	7.47	1.93	2.06	2.89	1.08	0.79	0.68	0.68	0.72	0.76	0.99
23	2.51	3.34	1.86	1.83	2.79	1.06	0.80	0.68	0.68	0.72	0.76	1.00
24	4.31	2.43	1.69	1.89	1.81	1.06	0.81	0.68	0.68	0.72	0.76	1.00
25	3.05	2.50	1.83	1.85	1.67	1.06	0.81	0.68	0.68	0.72	0.76	1.69
26	2.69	4.21	1.58	1.42	1.54	1.05	0.80	0.68	0.69	0.72	0.77	1.40
27	2.41	3.29	1.55	1.43	1.31	1.05	0.80	0.68	0.69	0.90	0.77	1.21
28	2.27	4.77	1.86	1.42	1.30	1.05	0.80	0.68	0.70	0.86	0.77	1.07
29	2.45	-	1.81	1.34	1.32	1.05	0.80	0.68	0.72	0.86	0.77	1.00
30	2.22	-	1.86	1.39	1.31	0.79	0.80	0.68	0.72	0.86	0.77	1.12
31	2.23	-	1.25	-	1.31	-	0.80	0.68	-	0.86	-	1.14
Mean	3.01	3.50	2.29	2.09	1.78	1.07	0.79	0.73	0.68	0.75	0.77	1.57
Min.	1.86	1.38	1.25	1.34	1.30	0.79	0.77	0.68	0.67	0.72	0.66	0.99
Max.	5.41	7.47	4.88	4.00	3.14	1.62	0.81	0.83	0.72	0.90	0.96	4.20

Annual Mean : 1.59 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	83	108	345	66	75	34	9.9	10.8	6.7	8.1	12.9	85
2	276	89	167	62	54	33	9.5	10.8	7.0	8.1	12.9	54
3	278	544	244	62	81	17	9.9	10.8	7.0	8.1	14.0	54
4	108	431	221	71	56	16	9.5	11.2	7.0	8.1	16.3	54
5	400	916	516	62	41	16	9.5	11.2	7.0	8.1	13.3	54
6	134	670	930	62	34	16	9.5	10.8	7.0	8.1	6.7	54
7	73	212	376	62	34	16	10.2	10.8	7.0	8.6	6.4	54
8	730	666	134	62	44	17	10.2	11.5	7.0	8.6	6.4	28
9	591	1,179	129	120	50	18	10.2	11.5	7.0	8.6	7.0	28
10	469	418	104	135	71	18	10.2	10.5	7.0	8.6	8.6	24
11	1,190	115	135	82	195	18	9.9	10.5	7.0	8.6	8.6	28
12	323	38	258	138	301	19	9.9	7.0	7.0	8.6	8.6	35
13	103	283	108	122	128	54	9.9	7.0	7.0	9.2	8.6	43
14	278	840	82	169	79	22	10.5	7.0	7.0	9.2	8.6	643
15	767	655	80	569	62	22	10.5	7.0	7.0	8.6	8.9	242
16	513	165	78	261	66	22	10.2	7.0	7.0	8.6	9.5	130
17	206	123	77	167	55	22	10.2	7.0	7.0	8.6	9.2	65
18	161	95	77	212	45	22	10.5	7.0	7.0	8.6	9.2	58
19	367	482	81	258	42	22	10.5	7.0	7.0	8.6	9.2	58
20	191	342	91	121	39	22	10.5	7.0	7.0	8.3	9.2	55
21	172	362	68	114	110	22	10.5	7.0	7.0	8.1	9.2	45
22	217	2,504	79	91	239	22	10.2	7.0	7.0	8.1	9.2	18
23	159	356	73	71	217	21	10.5	7.0	7.0	8.1	9.2	18
24	686	130	59	76	69	21	10.8	7.0	7.0	8.1	9.2	18
25	278	138	71	72	58	21	10.8	7.0	7.0	8.1	9.2	59
26	195	647	51	40	48	20	10.5	7.0	7.2	14.0	9.5	39
27	128	342	49	41	34	20	10.5	7.0	7.0	14.0	9.5	28
28	113	880	73	40	33	20	10.5	7.0	7.5	12.5	9.5	21
29	132	-	69	35	34	20	10.5	7.0	8.1	12.5	9.5	18
30	107	-	73	38	34	10	10.5	7.0	8.1	12.5	9.5	23
31	108	-	30	-	34	-	10.5	7.0	-	12.5	-	24
Mean	308	490	159	116	79	21	10	8	7	9	10	70
Min.	73	38	30	35	33	10	10	7	7	8	6	18
Max.	1,190	2,504	930	569	301	54	11	11	8	14	16	643

Annual Mean : 107 (m<sup>3</sup>/sec)

Annual Total : 3,309 (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.04	2.66	3.68	4.46	3.58	1.83	1.84	2.49	1.10	1.68	3.77	2.28
2	1.03	2.77	3.99	4.48	3.51	1.77	2.95	1.10	1.70	2.85	2.11	2.11
3	1.03	2.53	3.81	3.65	3.16	4.27	1.95	2.95	1.10	1.70	4.35	2.06
4	0.94	2.72	3.79	2.84	2.83	3.99	1.81	3.14	1.10	1.70	4.01	2.28
5	0.89	2.70	3.84	2.45	2.76	3.10	1.76	1.76	1.10	1.20	3.57	2.21
6	0.93	3.46	3.89	2.35	2.70	2.73	1.76	1.76	1.10	1.20	3.57	2.15
7	0.98	3.84	3.63	2.48	3.26	2.64	2.21	1.75	1.10	2.84	3.18	2.37
8	0.29	3.91	3.07	4.51	2.39	1.97	2.18	1.75	1.10	2.46	2.46	2.07
9	1.75	4.05	3.55	3.03	2.43	2.25	2.27	1.75	1.10	1.96	2.12	2.05
10	2.57	2.94	4.88	2.72	2.38	2.18	2.55	1.71	1.10	2.62	2.00	1.87
11	2.30	3.28	3.62	4.82	2.07	2.26	1.96	1.72	1.10	1.78	2.09	1.86
12	1.75	3.59	3.78	6.76	2.42	2.26	3.14	1.72	1.10	1.58	2.10	1.85
13	1.69	3.11	3.49	5.17	2.60	2.19	2.20	1.72	1.10	1.37	2.15	1.77
14	1.68	2.27	2.71	3.40	2.29	2.28	2.47	1.70	1.10	1.35	1.87	1.70
15	1.99	1.97	3.69	4.36	2.04	2.43	2.25	1.65	1.10	1.28	2.33	1.70
16	1.89	3.64	4.34	4.58	1.90	3.86	1.97	1.53	1.10	1.28	3.27	2.12
17	2.50	2.98	3.40	3.87	1.84	4.25	2.23	1.10	1.10	1.45	4.10	2.43
18	4.31	2.81	2.43	3.35	1.97	3.23	2.12	1.10	1.10	1.59	3.98	2.01
19	2.80	3.36	3.63	3.61	1.91	3.72	2.08	1.10	1.10	2.10	3.47	3.82
20	2.72	3.27	4.59	3.07	1.84	2.85	2.09	1.10	1.10	2.38	2.94	3.09
21	2.72	4.22	3.68	2.48	1.76	2.58	2.21	1.10	1.10	2.45	2.49	3.01
22	2.72	3.67	3.05	2.31	1.68	4.62	1.81	1.10	1.10	2.93	2.17	2.93
23	2.72	4.60	4.97	2.33	1.59	3.81	1.99	1.10	1.10	2.77	2.09	3.01
24	2.72	3.47	5.17	2.48	1.53	3.31	2.16	1.10	1.10	2.91	2.04	2.73
25	2.72	3.31	3.56	2.40	1.45	3.07	2.23	1.10	1.15	2.87	2.04	2.26
26	2.70	3.50	2.75	2.51	1.67	2.99	2.22	1.10	1.15	2.65	2.05	2.58
27	2.71	3.66	3.30	3.52	1.80	4.02	1.46	1.10	1.14	2.42	2.04	3.33
28	2.77	3.45	3.96	2.68	2.59	3.33	4.03	1.10	1.70	2.36	2.04	2.77
29	2.36	-	4.31	2.43	1.94	2.05	3.60	1.10	1.79	2.99	2.07	2.52
30	2.25	-	3.59	3.98	1.81	2.29	2.47	1.10	1.69	2.39	2.13	3.18
31	2.32	-	3.57	-	1.80	-	2.14	1.10	-	3.83	-	4.89
Mean	2.06	3.28	3.73	3.44	2.24	2.97	2.22	1.57	1.17	1.12	2.71	2.48
Min.	0.29	1.97	2.43	2.31	1.45	1.83	1.46	1.10	1.10	1.20	1.87	1.70
Max.	4.31	4.60	5.17	6.76	3.58	4.62	4.03	3.14	1.79	3.83	4.35	4.89
Annual Mean :	2.50 (m)											

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	13	193	431	685	403	72	73	163	16	57	458	130
2	13	214	525	693	385	184	66	250	16	62	230	106
3	13	170	469	423	297	618	86	250	16	59	646	99
4	9	204	463	228	226	525	70	292	16	59	531	130
5	8	200	478	156	212	283	65	65	16	21	401	120
6	9	371	494	141	200	206	65	65	16	21	401	111
7	11	478	417	161	321	189	120	64	16	228	302	144
8	5	500	276	704	147	88	116	64	16	158	158	101
9	64	544	395	268	153	125	128	64	16	87	107	98
10	177	248	849	204	145	116	173	60	16	186	92	77
11	133	326	415	824	101	127	87	61	16	67	103	76
12	64	406	460	1,819	152	127	292	61	16	48	105	75
13	58	286	379	972	182	117	118	61	16	32	111	66
14	57	128	202	356	131	130	160	59	16	30	77	59
15	91	88	434	649	97	153	125	54	16	26	137	59
16	79	420	642	730	80	484	88	44	16	26	323	107
17	165	257	356	487	73	611	123	16	16	38	560	153
18	631	222	153	343	88	314	107	16	16	49	522	93
19	220	346	417	412	81	443	102	16	16	105	374	472
20	204	323	734	276	73	230	103	16	16	145	248	281
21	204	600	431	161	65	179	120	16	16	156	163	263
22	204	429	272	134	57	745	70	16	16	246	114	246
23	204	738	886	137	49	469	91	16	16	214	103	263
24	204	374	972	161	44	333	113	16	16	242	97	206
25	204	333	398	148	38	276	123	16	16	19	127	179
26	200	382	210	166	56	259	121	16	16	98	179	338
27	202	426	331	387	69	534	38	16	18	152	97	338
28	214	369	515	197	180	338	537	16	59	142	97	214
29	142	-	631	153	85	98	409	16	68	259	101	168
30	125	-	406	522	70	131	160	16	58	147	109	302
31	136	-	401	-	69	-	110	16	-	475	-	853
Mean		342	466	423	140	284	134	62	21	128	232	184
Min.		88	153	134	38	72	38	16	16	21	77	59
Max.		738	972	1,819	403	745	537	292	68	475	646	853
Annual Mean :	2.50 (m <sup>3</sup> /sec)											
Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )											



OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(Gauge Reading, Unit : m)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.62	3.09	4.21	2.44	1.92	1.20	1.20	1.05	1.00	1.00	2.13	1.85
2	3.40	3.69	3.50	2.16	2.56	1.20	1.20	1.00	1.00	1.00	2.21	1.95
3	2.80	4.84	2.76	2.03	1.99	1.20	1.20	1.00	1.00	1.00	2.57	2.03
4	3.60	4.43	2.56	2.02	2.20	1.20	1.20	1.00	1.00	1.00	3.82	2.48
5	3.16	3.29	2.56	2.01	4.50	1.20	1.20	1.00	1.00	1.00	3.85	3.28
6	2.53	3.39	2.63	2.02	2.71	1.20	1.20	1.00	1.00	1.00	2.58	3.16
7	3.27	4.46	3.48	3.40	2.05	1.20	1.20	1.00	1.00	1.00	1.85	2.89
8	3.51	3.47	4.22	3.11	1.95	1.20	1.20	1.00	1.00	1.00	1.36	2.65
9	5.40	3.17	4.07	2.29	2.20	1.20	1.20	1.00	1.00	1.00	1.33	2.75
10	4.20	4.71	3.48	2.16	2.23	1.20	1.20	1.00	1.00	1.15	1.41	3.04
11	4.38	4.49	4.19	2.65	2.27	1.20	1.20	1.00	1.00	2.03	2.32	3.27
12	3.58	3.27	3.41	2.21	1.99	1.20	1.20	1.00	1.00	2.70	1.85	3.70
13	3.60	3.45	4.21	4.70	1.96	1.20	1.20	1.00	1.00	2.65	1.63	4.32
14	3.37	3.64	5.05	3.65	1.96	1.20	1.20	1.00	1.00	2.50	1.85	3.97
15	2.85	4.49	3.96	3.57	1.96	1.20	1.20	1.00	1.00	2.25	1.88	4.07
16	3.46	4.13	4.63	3.52	1.96	1.20	1.20	1.00	1.00	2.27	1.95	3.84
17	3.93	3.97	4.09	3.43	1.96	1.20	1.20	1.00	1.00	2.16	2.09	3.12
18	3.68	3.81	4.96	3.36	1.93	1.20	1.20	1.00	1.00	2.03	2.21	2.69
19	4.14	4.51	4.61	3.41	1.92	1.20	1.00	1.00	1.00	2.07	1.99	2.40
20	5.09	5.13	4.23	4.17	1.85	1.20	1.00	1.00	1.00	2.11	1.53	2.04
21	3.90	6.06	3.61	3.47	1.84	1.20	1.00	1.00	1.00	2.09	2.03	2.15
22	3.90	4.90	3.50	3.19	1.80	1.20	1.00	1.00	1.00	2.08	3.23	4.01
23	4.71	5.79	3.24	2.66	1.63	1.20	1.00	1.00	1.00	2.16	3.71	4.51
24	4.00	3.47	4.60	2.09	1.55	1.20	1.00	1.00	1.00	2.28	3.68	4.48
25	6.11	5.07	4.19	2.01	1.55	1.20	1.38	1.00	1.00	2.51	3.43	4.55
26	5.69	4.51	3.03	1.80	1.55	1.20	1.20	1.00	1.00	2.36	2.96	4.83
27	4.66	3.65	2.63	1.86	1.55	1.20	1.20	1.00	1.00	2.35	2.64	4.89
28	3.89	5.41	2.54	1.99	1.55	1.20	1.18	1.00	1.00	2.32	2.41	4.59
29	4.07	-	2.42	1.87	1.25	1.20	1.15	1.00	1.00	2.25	2.21	4.43
30	4.20	-	3.94	1.95	1.26	1.20	1.15	1.00	1.00	2.20	1.90	4.75
31	3.26	-	3.10	-	1.20	-	1.10	1.00	-	2.16	-	4.18
Mean	3.93	4.22	3.66	2.71	1.96	1.20	1.16	1.00	1.00	1.86	2.35	3.45
Min.	2.53	3.09	2.42	1.80	1.20	1.20	1.00	1.00	1.00	1.00	1.33	1.85
Max.	6.11	6.06	5.05	4.70	4.50	1.20	1.38	1.05	1.00	2.70	3.85	4.89

Annual Mean : 2.38 (m)

Note : " " : No data is available

OBSERVED DAILY DISCHARGE AT KAJANGAN STATION

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	(unit : m <sup>3</sup> /sec)											
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	440	288	647	131	78	28	28	20	18	18	98	72
2	373	463	403	101	169	28	28	18	18	18	106	81
3	219	911	210	88	85	28	28	18	18	18	170	88
4	434	734	169	88	105	28	28	18	18	18	506	136
5	307	342	169	87	763	28	28	18	18	18	516	339
6	163	370	183	88	199	28	28	18	18	18	172	307
7	336	746	397	373	90	28	28	18	18	18	72	239
8	406	394	651	294	81	28	28	18	18	18	37	187
9	1,184	309	594	115	105	28	28	18	18	18	35	208
10	643	853	397	101	108	28	28	18	18	25	40	276
11	714	759	639	187	113	28	28	18	18	88	118	336
12	428	336	376	106	85	28	28	18	18	197	72	466
13	434	388	647	849	82	28	28	18	18	187	55	690
14	365	447	1,010	450	82	28	28	18	18	138	72	558
15	230	759	554	425	82	28	28	18	18	110	75	594
16	391	617	818	409	82	28	28	18	18	113	81	513
17	544	558	602	382	82	28	28	18	18	101	94	296
18	459	502	967	362	79	28	28	18	18	88	106	195
19	620	767	810	376	78	28	28	18	18	92	85	127
20	1,029	1,048	655	632	72	28	28	18	18	96	48	89
21	533	1,552	437	394	71	28	28	18	18	94	88	100
22	533	939	403	315	68	28	28	18	18	93	325	572
23	853	1,396	328	189	55	28	28	18	18	101	469	767
24	569	394	805	94	49	28	28	18	18	114	459	755
25	1,582	1,019	639	87	49	28	38	18	18	139	382	784
26	1,340	767	273	68	49	28	28	18	18	122	256	907
27	831	450	183	73	49	28	28	18	18	121	185	934
28	530	1,190	165	85	49	28	26	18	18	118	128	801
29	594	-	129	74	30	28	25	18	18	110	106	734
30	643	-	547	81	31	28	25	18	18	105	77	871
31	334	-	291	-	28	-	22	18	-	101	-	635
Mean	583	689	487	237	102	28	26	18	18	84	168	441
Min.	163	288	129	68	28	28	18	18	18	35	72	72
Max.	1,582	1,552	1,010	849	763	28	38	20	18	197	516	934

Annual Mean : 240 (m<sup>3</sup>/sec)

Annual Total : 7,494 (10<sup>6</sup> m<sup>3</sup>)

1582:5-Jan.

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	2000												Year	
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		Dec
1	3.23	3.50	3.81	3.38	2.68	2.49	2.03	1.33	2.12	1.93	3.27	1.93	3.27	
2	2.93	3.53	3.77	3.49	2.67	2.43	2.05	1.29	1.92	1.78	2.44	1.78	2.44	
3	2.55	3.82	4.12	4.05	2.75	2.41	2.06	1.27	1.70	1.59	1.59	1.52	1.59	
4	2.44	4.89	4.66	4.02	2.71	2.92	2.05	1.25	1.53	1.47	2.79	1.47	2.79	
5	2.43	4.87	3.80	3.76	2.90	2.94	2.05	1.24	1.42	1.38	2.18	1.38	2.18	
6	2.45	4.84	4.22	3.45	3.03	2.73	2.06	1.23	1.37	1.34	1.71	1.34	1.71	
7	2.85	4.32	4.09	4.11	3.10	2.93	2.04	1.19	1.31	1.46	1.46	1.26	1.46	
8	3.43	4.92	4.19	4.01	3.01	3.02	2.04	1.17	1.28	1.63	1.63	1.18	1.63	
9	2.75	4.13	4.82	3.89	2.78	2.81	2.04	1.18	1.23	1.14	2.61	1.14	2.61	
10	3.24	4.91	5.42	3.74	2.67	2.57	2.01	1.17	1.19	2.43	2.43	1.09	2.43	
11	2.69	4.11	4.52	4.22	2.63	2.45	1.89	1.17	1.13	2.64	2.64	1.69	2.64	
12	2.55	3.69	3.93	4.04	2.58	2.28	1.80	1.16	1.09	4.20	4.20	2.26	4.20	
13	3.15	3.59	4.29	3.83	2.46	2.24	1.77	1.17	1.08	3.39	3.39	2.79	3.39	
14	2.82	3.21	4.98	4.35	2.39	2.21	1.73	1.17	1.07	4.52	4.52	4.16	4.52	
15	2.59	2.89	4.85	4.24	2.33	2.19	1.67	1.26	1.10	3.84	3.84	3.76	3.84	
16	2.55	2.74	3.68	4.33	2.32	2.15	1.56	1.33	1.11	3.42	3.42	2.89	3.42	
17	2.36	2.62	3.94	4.18	2.50	2.12	1.28	1.33	1.11	3.49	3.49	2.89	3.49	
18	3.21	2.50	4.31	4.43	2.33	2.09	1.27	1.27	1.16	2.30	2.30	2.71	2.30	
19	2.52	2.19	4.71	4.22	2.37	2.12	1.28	1.21	1.22	2.57	2.57	2.71	2.57	
20	3.98	2.18	4.33	3.74	3.90	2.15	1.27	1.18	1.21	2.97	2.97	2.26	2.97	
21	4.59	3.99	4.05	3.80	3.76	2.14	1.26	1.16	1.18	2.60	2.60	1.71	2.60	
22	4.34	3.48	3.50	3.61	5.82	2.12	1.25	1.12	1.15	2.46	2.46	1.58	2.46	
23	4.46	3.96	3.64	3.81	4.60	2.09	1.26	1.08	1.11	3.13	3.13	1.46	3.13	
24	4.99	4.83	3.50	3.93	3.74	2.06	1.24	1.06	1.09	3.52	3.52	1.70	3.52	
25	3.78	4.00	3.64	3.85	3.57	2.05	1.23	1.04	1.13	3.80	3.80	1.94	3.80	
26	3.78	3.83	3.95	3.74	2.86	2.04	1.25	1.04	1.18	3.76	3.76	1.72	3.76	
27	2.85	3.45	3.50	3.69	2.71	2.04	1.35	1.62	1.21	3.41	3.41	1.65	3.41	
28	2.54	3.79	3.54	3.54	2.65	2.04	1.38	2.01	1.29	2.67	2.67	1.54	2.67	
29	2.61	3.73	3.59	3.18	2.91	2.03	1.37	1.82	1.35	2.46	2.46	1.45	2.46	
30	3.59	-	3.48	3.05	2.63	2.04	1.36	1.73	1.71	1.86	1.86	1.37	1.86	
31	3.97	-	3.43	-	2.54	-	1.34	2.03	-	1.29	-	1.29	1.29	
Mean	3.17	3.74	4.07	3.86	2.96	2.33	1.62	1.30	1.29	2.84	2.84	1.92	2.84	
Min.	2.36	2.18	3.43	3.05	2.32	2.03	1.23	1.04	1.07	1.46	1.46	1.09	1.46	
Max.	4.99	4.92	5.42	4.43	5.82	3.02	2.06	2.03	2.12	4.52	4.52	4.16	4.52	
Annual Mean :	(m)												Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	2000												Year	
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		Dec
1	326	404	504	367	192	137	88	35	97	79	337	79	337	
2	248	412	490	400	191	131	90	32	78	132	67	132	67	
3	167	506	612	588	208	128	91	31	60	52	47	52	47	
4	131	933	831	576	199	246	90	30	47	217	43	217	43	
5	131	924	500	485	242	251	90	30	40	103	38	103	38	
6	133	910	649	387	272	203	91	29	37	61	36	61	36	
7	231	691	600	609	292	248	90	27	33	43	31	43	31	
8	381	948	640	572	268	272	90	26	32	55	27	55	27	
9	209	615	901	531	214	221	90	27	29	178	25	178	25	
10	329	942	1,193	480	190	170	86	26	27	131	22	131	22	
11	196	608	773	652	183	132	75	26	24	184	59	184	59	
12	167	464	543	582	173	114	68	26	22	643	111	643	111	
13	304	430	679	508	150	110	65	26	22	370	216	370	216	
14	223	321	975	700	125	106	62	26	21	770	628	770	628	
15	174	240	914	658	119	104	58	31	22	511	486	511	486	
16	166	205	460	695	118	100	50	35	23	380	239	380	239	
17	123	180	546	634	139	97	32	35	23	400	196	400	196	
18	320	139	686	735	119	95	31	31	25	116	200	116	200	
19	161	104	855	649	123	97	32	28	28	170	199	170	199	
20	563	103	694	480	532	100	31	26	28	258	111	258	111	
21	801	565	586	499	487	99	31	25	27	177	61	177	61	
22	699	398	403	437	1,411	97	30	23	25	134	51	134	51	
23	746	556	446	502	805	94	31	22	23	300	43	300	43	
24	983	908	403	543	480	91	30	20	22	410	60	410	60	
25	491	569	447	516	423	91	29	20	24	499	80	499	80	
26	493	510	550	480	233	89	30	20	27	485	62	485	62	
27	231	389	404	462	199	89	36	54	28	376	56	376	56	
28	165	495	394	416	186	90	38	87	32	190	48	190	48	
29	178	475	431	312	243	88	37	70	36	133	42	133	42	
30	430	-	396	278	183	89	37	62	61	73	37	73	37	
31	559	-	383	-	164	-	35	89	-	-	33	-	33	
Mean	337	517	609	525	286	133	57	35	34	263	111	263	111	
Min.	123	103	363	278	118	88	29	20	21	43	22	43	22	
Max.	983	948	1,193	735	1,411	272	91	89	97	770	628	770	628	
Annual Mean :	(m <sup>3</sup> /sec)												Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5.463 km<sup>2</sup>  
 Operated by : PBS

Year	( Gauge Reading, Unit : m )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.39	3.64	2.61	4.05	2.48	2.74	1.26	1.19	1.17	1.23	2.15	1.63
2	1.45	3.29	2.83	4.26	3.87	3.47	1.38	1.21	1.17	1.34	1.93	1.58
3	1.51	3.47	3.28	3.96	3.39	2.50	1.28	1.19	1.19	1.46	2.23	1.55
4	2.01	3.59	3.03	3.90	3.45	2.96	1.24	1.19	1.19	2.12	3.00	1.53
5	2.71	3.89	2.91	3.75	3.42	2.45	1.25	1.19	1.18	2.06	2.65	1.51
6	3.70	4.04	4.14	3.98	3.22	2.32	1.19	1.18	1.20	1.82	2.32	1.55
7	4.19	4.99	4.49	4.82	2.88	2.70	1.20	1.18	1.17	1.80	2.01	1.52
8	3.90	4.96	4.13	4.66	2.70	2.40	1.19	1.18	1.17	3.87	1.83	1.49
9	4.06	6.17	4.25	4.41	2.58	3.01	1.19	1.19	1.18	3.70	1.62	1.47
10	4.26	6.86	4.02	3.87	2.46	2.73	1.18	1.18	1.19	3.69	1.51	1.46
11	4.66	5.08	3.63	3.61	2.37	2.75	1.19	1.20	1.16	1.90	1.29	1.35
12	3.92	3.61	4.66	3.71	2.18	2.98	1.21	1.18	1.15	1.60	1.58	1.37
13	3.62	3.77	4.09	3.80	2.03	2.95	1.42	1.20	1.16	1.35	1.19	1.35
14	2.62	3.21	3.15	3.92	1.91	2.95	1.30	1.17	1.17	1.24	1.22	1.25
15	2.51	4.15	2.96	4.21	1.73	2.89	1.23	1.19	1.14	3.08	1.22	1.28
16	2.71	4.15	2.70	4.33	1.55	3.01	1.19	1.18	1.15	3.78	3.20	1.23
17	2.65	3.98	2.69	4.41	1.40	2.86	1.72	1.17	1.14	2.64	2.89	1.18
18	2.62	4.33	2.70	4.14	1.36	2.76	1.67	1.18	1.15	2.50	3.07	1.12
19	2.85	4.98	3.44	4.25	1.96	2.72	1.74	1.16	1.14	1.83	3.81	1.17
20	3.92	5.18	3.84	3.94	2.10	2.50	1.81	1.16	1.15	2.00	4.21	1.22
21	3.25	5.33	3.83	3.45	3.02	2.19	1.86	1.17	1.15	2.83	4.19	1.21
22	4.40	3.51	3.94	3.24	2.74	1.94	1.87	1.18	1.16	2.65	3.89	1.17
23	4.14	3.14	4.26	3.28	2.44	3.11	1.96	1.17	1.16	2.50	3.57	1.14
24	4.12	2.86	4.47	3.07	2.31	2.51	1.84	1.16	1.15	2.81	3.21	1.11
25	3.71	2.59	4.80	2.87	2.63	1.91	1.78	1.16	1.17	3.02	2.87	1.16
26	3.67	2.24	4.71	2.60	2.35	1.81	1.67	1.17	1.22	3.15	2.66	1.24
27	3.46	1.83	4.72	2.42	2.04	1.54	1.58	1.16	1.21	3.28	2.25	1.28
28	4.10	2.38	4.50	2.17	1.93	1.46	1.46	1.15	1.21	3.38	1.95	1.23
29	4.05	-	4.34	2.06	1.89	1.37	1.35	1.17	1.23	3.36	1.83	1.35
30	3.87	-	4.43	1.92	2.04	1.31	1.26	1.17	1.25	3.20	1.74	1.43
31	3.75	-	4.25	-	2.34	-	1.19	1.18	-	3.18	-	2.85
Mean	3.33	3.97	3.80	3.64	2.41	2.48	1.44	1.18	1.18	2.53	2.44	1.39
Min.	1.39	1.83	2.61	1.92	1.36	1.31	1.18	1.15	1.14	1.23	1.19	1.11
Max.	4.66	6.86	4.80	4.82	3.87	3.47	1.96	1.21	1.25	3.87	4.21	2.85

Annual Mean : 2.48 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5.463 km<sup>2</sup>  
 Operated by : PBS

Year	( unit : m <sup>3</sup> /sec )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	38	448	178	587	136	206	31	27	26	29	100	55
2	42	343	225	666	524	393	38	28	26	35	79	51
3	46	394	338	554	369	138	32	27	27	43	109	49
4	87	432	274	533	388	255	30	27	27	97	266	48
5	199	529	245	481	378	132	30	27	26	91	186	46
6	466	583	622	560	324	118	27	27	28	70	118	49
7	640	983	759	904	236	124	28	27	27	68	87	47
8	533	965	615	833	196	127	27	27	26	522	71	45
9	589	1,616	664	725	172	267	27	27	26	466	54	44
10	666	2,066	577	523	134	204	26	26	27	464	46	43
11	831	1,024	444	437	123	201	27	27	25	77	32	36
12	539	437	830	469	103	261	28	27	25	52	51	37
13	439	488	602	498	88	254	40	27	25	36	27	36
14	180	320	303	539	78	254	33	26	26	30	28	30
15	158	623	257	647	63	240	29	27	25	287	28	32
16	199	623	197	692	49	267	27	27	25	491	317	29
17	187	562	194	726	39	232	62	26	24	185	240	26
18	181	695	197	622	36	211	58	26	25	139	283	23
19	229	975	386	664	82	202	63	26	25	71	501	26
20	542	1,071	514	549	95	139	69	25	25	86	647	29
21	331	1,150	509	388	270	104	73	26	25	226	640	28
22	722	406	546	329	205	80	74	26	25	187	530	26
23	620	301	665	338	132	294	82	26	25	139	426	24
24	612	233	752	284	117	159	71	25	25	220	321	23
25	469	174	893	236	183	77	66	25	26	272	234	26
26	457	110	855	177	121	69	58	26	29	304	189	30
27	390	70	859	129	90	49	51	26	28	338	110	32
28	605	125	764	102	79	43	43	25	28	367	81	29
29	587	-	699	92	76	37	36	26	29	362	71	36
30	524	-	734	79	89	33	31	26	30	317	63	41
31	477	-	662	-	120	-	27	-	-	312	-	230
Mean	406	634	528	479	164	173	43	26	26	206	198	42
Min.	38	70	178	79	36	33	26	25	24	29	27	23
Max.	831	2,066	893	904	524	393	82	28	30	522	647	230

Annual Mean : 244 (m<sup>3</sup>/sec)      Annual Total : 7,595 (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	2002												Annual Mean :			
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(m <sup>3</sup> /sec)	(10 <sup>6</sup> m <sup>3</sup> )	(m <sup>3</sup> /sec)
1	3.34	2.75	3.07	3.81	3.07	1.95	1.18	1.16	1.09	0.93	0.89	0.90	0.82			
2	2.89	2.66	2.92	4.49	1.81	2.56	1.17	1.08	0.93	0.89	0.89	0.92	0.86			
3	2.77	2.54	2.74	3.95	2.01	2.29	1.16	1.07	0.94	0.90	0.90	0.98	1.05			
4	2.74	2.88	2.22	3.07	2.26	2.14	1.16	1.05	0.93	0.87	0.87	0.96	1.04			
5	2.82	4.44	2.29	4.79	2.26	1.94	1.14	1.04	0.92	0.86	0.86	1.16	1.08			
6	2.75	4.14	2.24	3.87	2.26	1.60	1.15	1.02	0.92	0.85	0.85	1.21	1.12			
7	3.42	4.57	2.12	3.01	2.08	1.38	1.13	1.02	0.91	0.85	0.85	1.24	1.11			
8	2.51	3.98	2.26	2.80	2.01	1.28	1.14	1.00	0.92	0.83	0.83	1.19	1.15			
9	2.18	4.09	2.32	2.53	1.98	1.26	1.13	0.98	0.93	0.82	0.82	1.16	1.52			
10	1.59	5.12	2.57	2.23	1.85	1.24	1.14	0.97	0.92	0.79	0.79	1.12	1.97			
11	2.09	4.81	2.90	2.27	2.66	1.25	1.12	0.97	0.91	0.79	0.79	1.08	2.08			
12	2.61	4.57	4.18	2.17	2.91	1.24	1.13	0.97	0.90	0.78	0.78	1.12	2.63			
13	1.51	3.87	3.69	2.38	2.55	1.22	1.13	0.97	0.89	0.78	0.78	1.16	2.80			
14	1.60	4.36	3.48	2.63	2.20	1.20	1.11	0.97	0.88	0.78	0.78	1.14	2.76			
15	2.89	4.80	3.69	2.41	1.97	1.19	1.12	0.96	0.88	0.77	0.77	1.17	2.67			
16	2.53	5.01	3.51	2.70	1.94	1.18	1.12	0.95	0.90	0.76	0.76	1.21	4.46			
17	2.10	4.51	2.92	2.54	1.83	1.18	1.13	0.97	0.90	0.75	0.75	1.24	3.86			
18	2.81	4.23	2.81	4.17	1.72	1.19	2.30	0.96	0.90	0.75	0.75	1.32	3.45			
19	4.03	4.63	2.79	4.06	1.60	1.17	2.01	0.95	0.90	0.75	0.75	1.54	3.12			
20	4.00	4.41	3.02	4.28	1.45	1.18	1.21	0.95	0.90	0.75	0.75	1.48	2.93			
21	4.74	3.91	3.97	2.86	1.33	1.17	1.14	0.95	0.90	0.75	0.75	1.38	2.63			
22	4.35	3.68	3.55	2.71	1.25	1.17	1.13	0.95	0.89	0.75	0.75	1.31	2.46			
23	5.20	3.91	2.71	2.55	1.23	1.18	1.13	0.95	0.90	0.75	0.75	1.22	2.45			
24	4.96	4.38	2.53	2.44	1.19	1.18	1.12	0.95	0.90	0.75	0.75	1.15	2.53			
25	4.23	3.81	2.38	2.35	1.21	1.16	1.11	0.94	0.88	0.75	0.75	1.08	2.65			
26	4.02	3.63	2.20	2.24	1.18	1.17	1.10	0.95	0.89	0.75	0.75	0.98	4.40			
27	4.24	3.44	3.48	2.20	1.18	1.16	1.11	0.94	0.89	0.75	0.75	0.93	3.36			
28	3.47	3.32	4.20	2.15	1.19	1.17	1.09	0.94	0.89	0.75	0.75	0.87	3.59			
29	3.41	-	4.45	2.08	1.14	1.16	1.09	0.94	0.89	0.75	0.75	0.85	3.44			
30	3.76	-	3.69	1.91	1.13	1.17	1.09	0.93	0.89	0.75	0.75	0.84	4.26			
31	3.76	-	3.54	-	1.14	-	1.08	0.93	-	0.75	0.75	-	4.55			
Mean	3.20	4.02	3.05	2.92	1.76	1.35	1.20	0.98	0.90	0.79	0.79	1.13	2.54			
Min.	1.51	2.54	2.12	1.91	1.13	1.16	1.08	0.93	0.88	0.75	0.75	0.84	0.82			
Max.	5.20	5.12	4.45	4.79	2.91	2.56	2.30	1.09	0.94	0.90	0.90	1.54	4.55			
Annual Mean :	1.99 (m)												(m <sup>3</sup> /sec)	Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )	

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	2002												Annual Mean :			
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	(m <sup>3</sup> /sec)	(10 <sup>6</sup> m <sup>3</sup> )	(m <sup>3</sup> /sec)
1																
2																
3																
4																
5																
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31																
Mean																
Min.																
Max.																
Annual Mean :													(m <sup>3</sup> /sec)	Annual Total :	(10 <sup>6</sup> m <sup>3</sup> )	

Note : " " : No data is available

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	2003												( Gauge Reading, Unit : m )												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	3.71	5.02	4.69	3.74	1.21	0.94	1.09	1.03	0.95	0.92	1.17	1.35	3.71	5.02	4.69	3.74	1.21	0.94	1.09	1.03	0.95	0.92	1.17	1.35	
2	4.56	4.98	3.88	2.62	2.60	0.96	1.09	1.02	0.95	0.93	1.04	1.65	4.56	4.98	3.88	2.62	2.60	0.96	1.09	1.02	0.95	0.93	1.04	1.65	
3	4.27	3.91	3.81	2.45	2.59	0.95	1.08	1.01	0.94	0.95	1.00	2.99	4.27	3.91	3.81	2.45	2.59	0.95	1.08	1.01	0.94	0.95	1.00	2.99	
4	3.72	3.41	4.80	1.85	1.62	0.96	1.07	1.01	0.94	0.95	1.04	2.70	3.72	3.41	4.80	1.85	1.62	0.96	1.07	1.01	0.94	0.95	1.04	2.70	
5	4.56	3.34	4.85	1.65	1.52	0.99	1.07	0.99	0.94	0.94	0.99	2.91	4.56	3.34	4.85	1.65	1.52	0.99	1.07	0.99	0.94	0.94	0.99	2.91	
6	3.57	3.27	4.82	1.46	1.54	0.98	1.06	0.97	0.93	0.95	0.94	3.16	3.57	3.27	4.82	1.46	1.54	0.98	1.06	0.97	0.93	0.95	0.94	3.16	
7	2.74	2.64	4.62	1.40	1.47	0.98	1.06	0.97	0.93	0.95	0.89	2.94	2.74	2.64	4.62	1.40	1.47	0.98	1.06	0.97	0.93	0.95	0.89	2.94	
8	2.21	4.36	4.34	2.98	1.59	0.99	1.05	0.97	0.92	0.96	0.83	3.80	2.21	4.36	4.34	2.98	1.59	0.99	1.05	0.97	0.92	0.96	0.83	3.80	
9	1.52	4.18	4.28	2.91	1.70	0.99	1.04	0.97	0.92	1.03	0.79	4.35	1.52	4.18	4.28	2.91	1.70	0.99	1.04	0.97	0.92	1.03	0.79	4.35	
10	1.32	2.75	3.91	1.73	1.48	0.98	1.04	0.97	0.92	1.05	0.76	3.22	1.32	2.75	3.91	1.73	1.48	0.98	1.04	0.97	0.92	1.05	0.76	3.22	
11	1.53	2.72	3.43	1.64	3.71	0.98	1.04	0.97	0.92	0.99	0.72	2.61	1.53	2.72	3.43	1.64	3.71	0.98	1.04	0.97	0.92	0.99	0.72	2.61	
12	1.54	2.91	3.56	1.48	3.25	0.99	1.04	0.97	0.93	0.98	0.69	2.24	1.54	2.91	3.56	1.48	3.25	0.99	1.04	0.97	0.93	0.98	0.69	2.24	
13	2.62	3.46	3.42	1.41	2.61	1.04	1.04	0.97	0.93	0.95	0.68	1.96	2.62	3.46	3.42	1.41	2.61	1.04	1.04	0.97	0.93	0.95	0.68	1.96	
14	2.43	4.63	2.81	1.96	1.91	1.03	1.04	0.97	0.93	0.92	0.75	2.00	2.43	4.63	2.81	1.96	1.91	1.03	1.04	0.97	0.93	0.92	0.75	2.00	
15	2.06	4.38	2.71	1.61	1.67	1.04	1.03	0.96	0.95	0.90	0.82	2.08	2.06	4.38	2.71	1.61	1.67	1.04	1.03	0.96	0.95	0.90	0.82	2.08	
16	1.78	4.66	2.70	1.51	1.52	1.05	1.03	0.96	0.94	0.90	1.10	2.02	1.78	4.66	2.70	1.51	1.52	1.05	1.03	0.96	0.94	0.90	1.10	2.02	
17	1.31	4.66	3.49	1.45	1.34	1.06	1.03	0.96	0.97	0.88	1.57	2.01	1.31	4.66	3.49	1.45	1.34	1.06	1.03	0.96	0.97	0.88	1.57	2.01	
18	1.24	4.72	4.03	1.41	1.25	1.07	1.02	0.96	0.98	0.87	1.43	2.85	1.24	4.72	4.03	1.41	1.25	1.07	1.02	0.96	0.98	0.87	1.43	2.85	
19	1.19	4.85	3.76	1.33	1.19	1.12	1.02	0.96	0.98	0.86	2.71	2.85	1.19	4.85	3.76	1.33	1.19	1.12	1.02	0.96	0.98	0.86	2.71	2.85	
20	1.17	4.67	3.50	1.35	1.18	1.38	1.02	0.96	0.97	0.86	2.57	2.71	1.17	4.67	3.50	1.35	1.18	1.38	1.02	0.96	0.97	0.86	2.57	2.71	
21	3.97	4.16	4.16	1.31	1.09	1.37	1.02	0.96	0.96	0.84	2.53	2.84	3.97	4.16	4.16	1.31	1.09	1.37	1.02	0.96	0.96	0.84	2.53	2.84	
22	4.01	3.84	4.50	1.36	0.99	1.29	1.02	0.96	0.95	0.83	2.50	2.93	4.01	3.84	4.50	1.36	0.99	1.29	1.02	0.96	0.95	0.83	2.50	2.93	
23	3.90	4.06	3.46	1.32	0.94	1.25	1.02	0.95	0.94	0.82	2.25	2.92	3.90	4.06	3.46	1.32	0.94	1.25	1.02	0.95	0.94	0.82	2.25	2.92	
24	3.72	4.44	2.79	1.27	0.93	1.19	1.02	0.95	0.95	0.80	2.35	2.89	3.72	4.44	2.79	1.27	0.93	1.19	1.02	0.95	0.95	0.80	2.35	2.89	
25	3.45	4.25	2.51	1.20	0.91	1.17	1.02	0.95	0.94	0.82	3.02	4.97	3.45	4.25	2.51	1.20	0.91	1.17	1.02	0.95	0.94	0.82	3.02	4.97	
26	4.21	4.40	2.47	1.27	0.91	1.15	1.02	0.95	0.93	0.95	2.70	4.09	4.21	4.40	2.47	1.27	0.91	1.15	1.02	0.95	0.93	0.95	2.70	4.09	
27	4.14	4.83	2.36	1.33	0.92	1.12	1.02	0.95	0.92	0.92	2.18	3.83	4.14	4.83	2.36	1.33	0.92	1.12	1.02	0.95	0.92	0.92	2.18	3.83	
28	4.20	-	2.43	1.27	0.92	1.10	1.02	0.95	0.93	0.90	1.63	2.65	4.20	-	2.43	1.27	0.92	1.10	1.02	0.95	0.93	0.90	1.63	2.65	
29	3.95	-	2.37	1.19	0.93	1.10	1.02	0.95	0.92	0.94	1.44	2.78	3.95	-	2.37	1.19	0.93	1.10	1.02	0.95	0.92	0.94	1.44	2.78	
30	3.81	-	3.64	-	0.91	-	1.02	0.95	-	0.95	-	4.26	3.81	-	3.64	-	0.91	-	1.02	0.95	-	0.95	-	4.26	
31	2.93	4.01	3.62	1.70	1.54	1.07	1.04	0.97	0.94	0.92	1.47	2.88	2.93	4.01	3.62	1.70	1.54	1.07	1.04	0.97	0.94	0.92	1.47	2.88	
Mean	1.17	2.64	2.36	1.19	0.91	0.94	1.02	0.95	0.92	0.80	0.68	1.35	1.17	2.64	2.36	1.19	0.91	0.94	1.02	0.95	0.92	0.80	0.68	1.35	
Min.	4.56	5.02	4.85	3.74	3.71	1.38	1.09	1.03	0.98	1.05	3.02	4.97	4.56	5.02	4.85	3.74	3.71	1.38	1.09	1.03	0.98	1.05	3.02	4.97	
Max.																									

Annual Mean : 1.92 (m)

Note : " " : No data is available

**OBSERVED DAILY DISCHARGE AT KAJANGAN STATION**

Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	2003												( unit : m <sup>3</sup> /sec )											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1																								
2																								
3																								
4																								
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29																								
30																								
31																								
Mean																								
Min.																								
Max.																								

Annual Mean : (m<sup>3</sup>/sec)

Annual Total : (10<sup>6</sup> m<sup>3</sup>)

**OBSERVED DAILY WATER LEVEL AT KAJANGAN STATION**

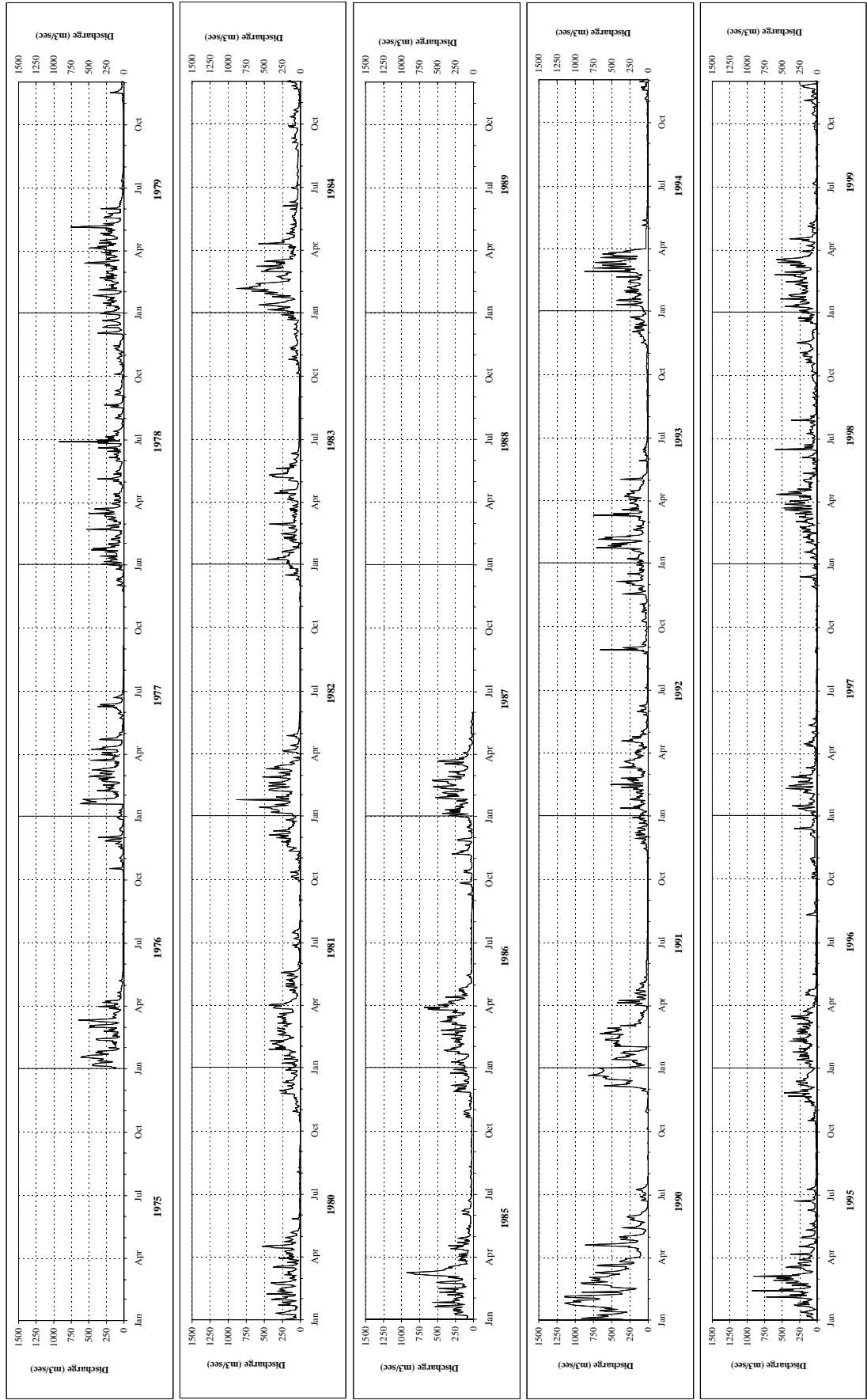
Basin : Upper Solo  
 River : Bengawan Solo  
 Zero Gauge (SHVP) : 50.75 m  
 Catchment Area : 5,463 km<sup>2</sup>  
 Operated by : PBS

Year	2004												Annual Total :		
	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	Min.
1	3.02	4.85	3.50	2.25	1.75	2.25	1.07	0.98	0.87	0.86	1.65	5.64	3.15	1.95	4.80
2	3.00	3.95	2.95	2.25	1.59	1.97	1.07	0.97	0.87	0.85	1.41	5.48	1.95	1.78	4.80
3	2.98	2.93	3.00	2.15	1.50	1.85	1.06	0.98	0.86	0.86	1.21	3.90	4.80	5.19	4.90
4	2.47	5.19	3.70	2.14	1.45	1.67	1.07	0.97	0.86	0.87	1.05	4.76	4.80	5.19	4.90
5	2.49	4.26	3.53	2.10	1.46	1.57	1.17	0.96	0.86	0.88	1.04	3.72	4.80	5.19	4.90
6	2.60	2.95	3.51	2.07	1.42	1.25	1.23	0.96	0.86	0.88	1.03	3.39	4.80	5.19	4.90
7	2.45	2.87	3.45	2.04	1.35	1.24	1.22	0.96	0.85	0.87	1.71	2.71	4.80	5.19	4.90
8	2.47	3.02	3.57	2.07	1.38	1.20	1.19	0.95	0.85	0.87	1.62	3.08	4.80	5.19	4.90
9	4.25	3.45	4.62	2.09	1.35	1.20	1.16	0.95	0.85	0.86	1.57	2.71	4.80	5.19	4.90
10	3.37	2.85	4.57	2.23	1.30	1.29	1.15	0.95	0.85	0.86	2.34	2.62	4.80	5.19	4.90
11	3.76	2.47	4.75	3.17	1.25	1.20	1.31	0.94	0.84	0.86	2.81	2.48	4.80	5.19	4.90
12	3.55	2.52	4.25	2.90	1.24	1.20	1.39	0.94	0.84	0.86	2.62	2.39	4.80	5.19	4.90
13	2.96	1.98	4.90	2.56	1.20	1.19	2.28	0.95	0.84	0.85	2.52	4.12	4.80	5.19	4.90
14	2.45	2.20	4.82	2.10	1.20	1.17	2.17	0.95	0.84	0.84	2.22	3.58	4.80	5.19	4.90
15	1.95	1.85	3.90	2.00	1.20	1.15	2.35	0.94	0.84	0.84	1.96	3.13	4.80	5.19	4.90
16	2.15	1.90	3.55	1.90	1.19	1.15	2.25	0.93	0.83	0.83	1.72	2.71	4.80	5.19	4.90
17	3.62	2.53	3.29	1.85	2.00	1.13	2.20	0.94	0.83	0.83	1.44	2.46	4.80	5.19	4.90
18	3.95	1.87	4.07	1.80	1.85	1.13	1.55	0.93	0.83	0.79	1.57	2.64	4.80	5.19	4.90
19	2.55	1.78	3.90	1.71	1.79	1.14	1.47	0.93	0.84	0.79	1.55	4.27	4.80	5.19	4.90
20	2.10	2.00	3.50	1.57	1.75	1.13	1.38	0.92	0.84	0.84	1.72	2.29	4.80	5.19	4.90
21	1.95	3.75	3.75	1.56	1.69	1.10	1.25	0.91	0.84	0.85	1.57	3.68	4.80	5.19	4.90
22	2.64	3.54	2.59	3.15	1.57	1.10	1.20	0.90	0.83	0.89	2.78	4.28	4.80	5.19	4.90
23	2.50	3.98	2.25	3.00	1.50	1.09	1.17	0.89	0.84	0.92	4.34	4.24	4.80	5.19	4.90
24	3.90	4.85	2.08	2.95	1.47	1.09	1.16	0.89	0.84	1.05	3.84	4.71	4.80	5.19	4.90
25	3.95	3.52	1.97	2.85	1.40	1.10	1.10	0.89	0.85	1.08	3.91	4.17	4.80	5.19	4.90
26	4.20	3.90	1.85	2.90	1.32	1.09	1.07	0.89	0.84	1.04	3.59	3.54	4.80	5.19	4.90
27	4.27	4.20	1.69	2.55	1.40	1.08	1.02	0.89	0.85	1.05	3.54	4.24	4.80	5.19	4.90
28	4.80	3.90	1.95	2.47	1.39	1.08	1.01	0.89	0.85	1.13	3.59	5.00	4.80	5.19	4.90
29	3.97	3.75	2.26	2.20	1.57	1.07	1.01	0.88	0.86	1.19	3.57	4.46	4.80	5.19	4.90
30	3.85	-	2.55	2.00	2.40	1.07	1.02	0.88	0.85	2.08	4.30	5.31	4.80	5.19	4.90
31	3.40	-	2.50	-	2.30	-	1.01	0.87	-	1.82	-	3.77	4.80	5.19	4.90
Mean	3.15	3.18	3.32	2.29	1.52	1.27	1.35	0.93	0.85	0.97	2.33	3.73	3.15	1.95	4.80
Min.	1.95	1.78	1.69	1.56	1.19	1.07	1.01	0.87	0.83	0.79	1.03	2.29	1.95	1.78	1.69
Max.	4.80	5.19	4.90	3.17	2.40	2.25	2.35	0.98	0.87	2.08	4.34	5.64	4.80	5.19	4.90
Annual Mean :	2.07 (m)												Annual Total : (10 <sup>6</sup> m <sup>3</sup> )		

Note : " " : No data is available

**CHAPTER 3 WATER LEVEL AND DISCHARGE DATA**

**3.3 Discharge Hydrograph**

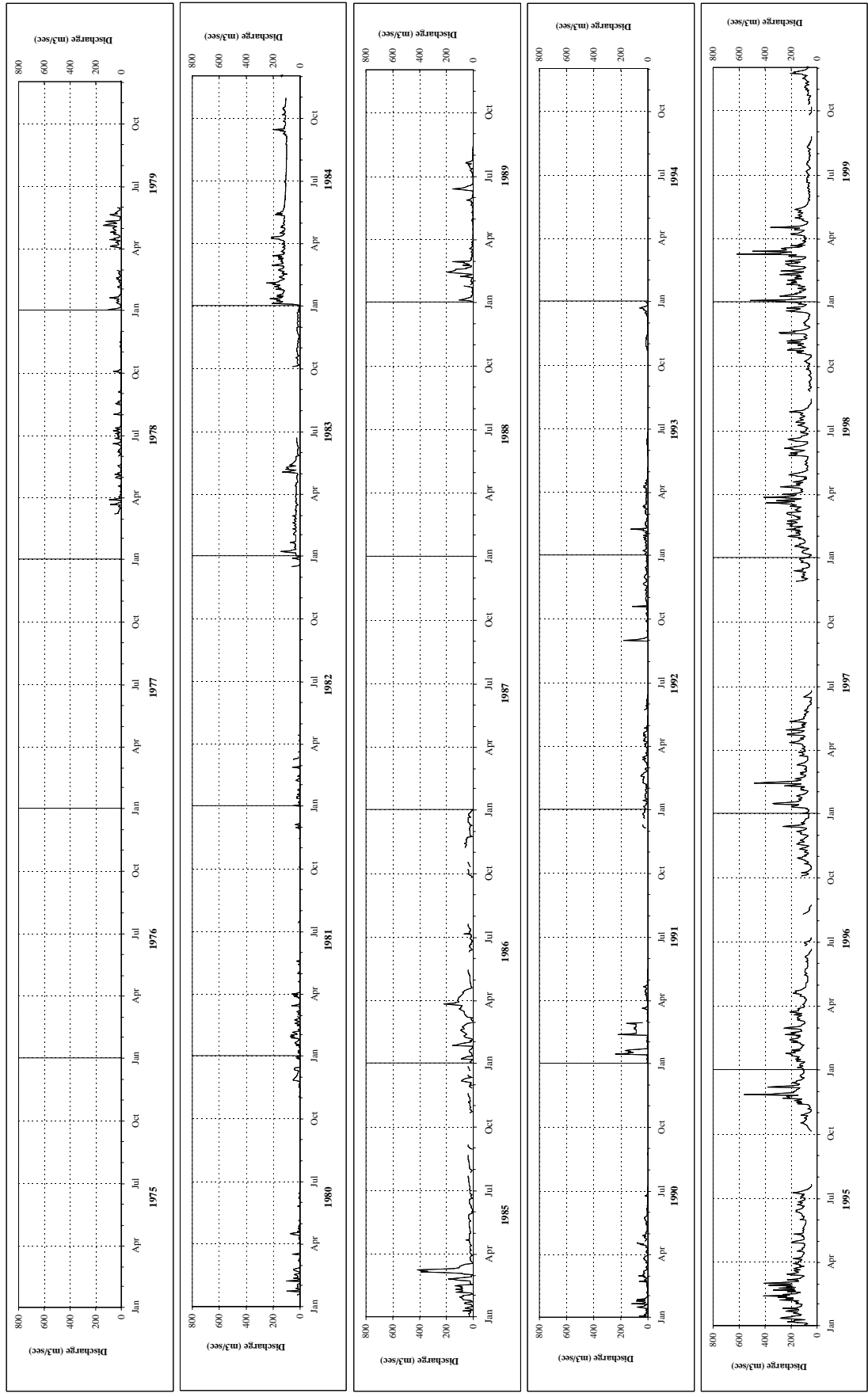


Source : - Observed Water Level Record ( by PBS )  
 - H - Q curves prepared by PBS

Station : JURUG  
 River : UPPER SOLO  
 Catchment Area : 3,220 km<sup>2</sup>  
 Available data : 1976 - 1999

**Observed Daily Discharge Hydrograph at Major WL Stations**

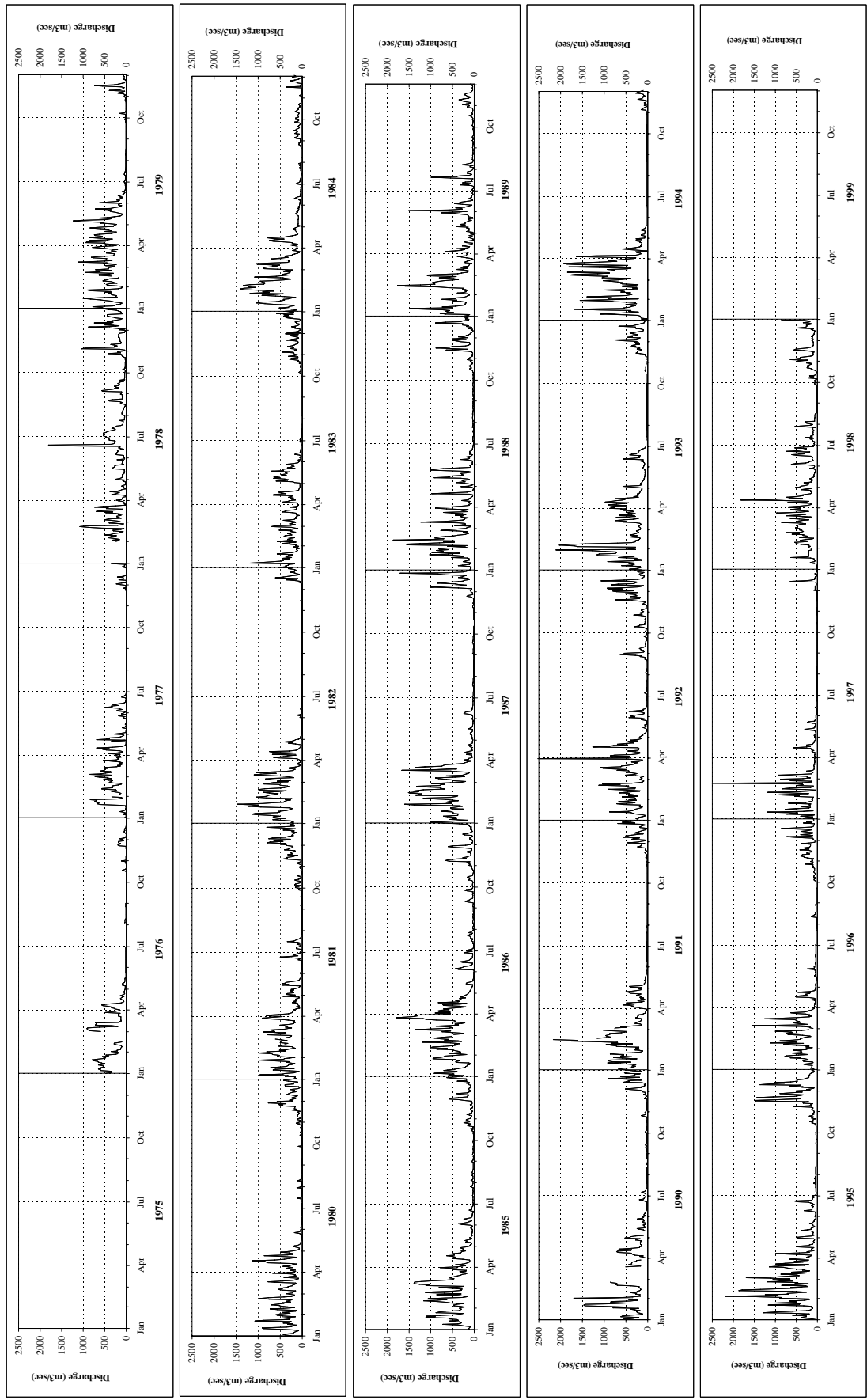




Station : JARUM  
 River : UPPER SOLO  
 Catchment Area : 833 km<sup>2</sup>  
 Available data : 1976 - 1999

Source : - Observed Water Level Record ( by PBS )  
 - H - Q curves prepared by PBS

**Observed Daily Discharge Hydrograph at Major WL Stations**



Source : - Observed Water Level Record ( by PBS )  
 - H - Q curves prepared by PBS

Station : KAJANGAN  
 River : UPPER SOLO  
 Catchment Area : 5,463 km<sup>2</sup>  
 Available data : 1976 - 1998

**Observed Daily Discharge Hydrograph at Major WL Stations**

***CHAPTER 4***  
***OPERATION RECORD OF WATER USAGE***

***CHAPTER 4 OPERATION RECORD OF WATER USAGE***

***4.1 Wonogiri Multipurpose Dam***

**Wonogiri Dam Operation Data Record in 2000**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/1/1	10	0	0	0	1.9	13.0	*			134.48		0		3,257,280			3,257,280
2000/1/2	5	6	0	0	2.6	0.0	*			134.46		0		3,283,200			3,283,200
2000/1/3	5	25	0	13	9.3	0.0	*			134.45		0		3,283,200			3,283,200
2000/1/4	30	1	0	0	6.1	0.0	*			134.46		0		3,283,200			3,283,200
2000/1/5	29	4	0	29	10.3	11.0	*			134.50		0		3,283,200			3,283,200
2000/1/6	0	21	0	4	6.1	6.0	*			134.48		0		3,283,200			3,283,200
2000/1/7	13	14	0	0	6.3	16.0	*			134.44		0		3,283,200			3,283,200
2000/1/8	14	0	0	0	2.7	0.0	*			134.38		0		3,283,200			3,283,200
2000/1/9	12	0	0	0	2.3	0.0	*			134.42		0		3,256,560			3,256,560
2000/1/10	0	6	0	4	2.1	85.0	*			134.68		0		3,304,800			3,304,800
2000/1/11	0	2	0	0	0.5	22.0	*			134.70		0		4,140,720			4,140,720
2000/1/12	0	8	0	29	5.8	9.0	*			134.78		0		3,635,280			3,635,280
2000/1/13	0	0	0	0	0.0	0.0	*			134.71		0		3,300,480			3,300,480
2000/1/14	0	0	0	0	0.0	4.0	*			134.65		0		3,682,080			3,682,080
2000/1/15	0	0	0	0	0.0	0.0	*			134.58		0		3,666,240			3,666,240
2000/1/16	0	0	0	0	0.0	0.0	*			134.51		0		3,464,640			3,464,640
2000/1/17	0	0	0	0	0.0	0.0	*			134.43		0		3,335,040			3,335,040
2000/1/18	0	9	0	0	2.4	0.0	*			134.37		0		2,373,120			2,373,120
2000/1/19	0	19	0	0	5.1	0.0	*			134.30		0		2,514,240			2,514,240
2000/1/20	0	1	25	12	12.1	0.0	*			134.29		0		2,514,240			2,514,240
2000/1/21	10	23	0	14	9.8	41.0	*			134.44		0		3,826,080			3,826,080
2000/1/22	12	10	0	33	9.1	5.0	*			134.48		0		3,725,280			3,725,280
2000/1/23	5	15	0	2	5.2	35.0	*			134.51		0		4,249,440			4,249,440
2000/1/24	6	7	0	11	4.4	0.0	*			134.49		0		2,845,440			2,845,440
2000/1/25	0	0	20	2	8.5	0.0	*			134.44		0		2,838,960			2,838,960
2000/1/26	0	0	0	2	0.3	0.0	*			134.42		0		2,427,120			2,427,120
2000/1/27	0	1	5	0	2.3	0.0	*			134.39		0		3,078,720			3,078,720
2000/1/28	39	5	0	9	10.0	0.0	*			134.39		0		2,925,360			2,925,360
2000/1/29	0	0	7	0	2.9	0.0	*			134.37		0		3,669,840			3,669,840
2000/1/30	0	25	0	0	6.7	0.0	*			134.37		0		5,037,840			5,037,840
2000/1/31	0	41	0	0	10.9	31.0	*			134.36		0		4,867,200			4,867,200
Total/Average	190	243	57	164	145.8	278.0	0.0	#DIV/0!	#DIV/0!	134.47		0		104,918,400	0.00		104,918,400

Note : \* \* \* \* : No data is available

**Wonogiri Dam Operation Data Record in 2000**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/2/1	8	23	15	21	16.5	0.0	*			134.42		0		3,751,920			3,751,920
2000/2/2	85	22	31	33	39.3	27.0	*			134.64		0		3,507,840			3,507,840
2000/2/3	7	0	18	4	9.3	0.0	*			134.83		0		3,507,840			3,507,840
2000/2/4	39	27	73	64	53.0	60.0	*			135.24		0		3,627,360			3,627,360
2000/2/5	36	29	19	39	27.5	25.0	*			135.51		7,200,000		5,056,560			12,256,560
2000/2/6	0	0	20	21	10.9	0.0	*			135.45		8,640,000		5,192,640			13,832,640
2000/2/7	24	31	24	25	26.0	18.0	*			135.53		8,640,000		5,218,560			13,858,560
2000/2/8	42	26	26	2	26.1	21.0	*			135.68		8,640,000		5,209,920			13,849,920
2000/2/9	9	12	7	11	9.2	6.0	*			135.72		8,640,000		5,218,560			13,858,560
2000/2/10	0	23	9	0	9.9	28.0	*			135.66		12,240,000		5,218,560			17,458,560
2000/2/11	16	0	0	0	3.1	0.0	*			135.52		9,360,000		5,218,560			14,578,560
2000/2/12	0	0	0	25	3.1	0.0	*			135.42		8,640,000		5,218,560			13,858,560
2000/2/13	0	17	0	3	4.9	14.0	*			135.39		8,640,000		5,218,560			13,858,560
2000/2/14	0	0	0	4	0.5	0.0	*			135.35		1,440,000		5,045,760			6,485,760
2000/2/15	0	14	0	2	4.0	0.0	*			135.39		0		5,011,200			5,011,200
2000/2/16	0	0	6	2	2.7	0.0	*			135.39		0		5,011,200			5,011,200
2000/2/17	0	0	0	1	0.1	0.0	*			135.34		0		5,011,200			5,011,200
2000/2/18	64	0	0	21	15.0	0.0	*			135.31		0		5,011,200			5,011,200
2000/2/19	0	7	0	0	1.9	0.0	*			135.34		0		4,421,520			4,421,520
2000/2/20	39	0	15	0	13.8	0.0	*			135.51		0		4,337,280			4,337,280
2000/2/21	8	12	55	101	40.2	30.0	*			135.71		0		4,893,840			4,893,840
2000/2/22	56	0	17	25	21.0	0.0	*			135.84		0		4,849,920			4,849,920
2000/2/23	38	31	80	34	53.0	35.0	*			136.09		0		4,926,240			4,926,240
2000/2/24	0	0	29	1	12.1	0.0	*			136.20		0		4,924,800			4,924,800
2000/2/25	39	34	0	65	24.8	42.0	*			136.34		0		4,924,800			4,924,800
2000/2/26	0	0	57	7	24.5	0.0	*			136.40		6,840,000		4,964,400			11,804,400
2000/2/27	34	25	0	27	16.6	22.0	*			136.51		8,640,000		5,028,480			13,668,480
2000/2/28	0	0	0	2	0.3	10.0	*			136.42		8,640,000		5,028,480			13,668,480
2000/2/29	0	0	0	17	2.1	0.0	*			136.42		8,640,000		5,028,480			13,668,480
Total/Average	544	333	501	557	469.4	338.0	0.0	#DIV/0!	#DIV/0!	135.58		106,200,000		134,555,760		0.00	240,755,760

Note : " \* " : No data is available

**Wonogiri Dam Operation Data Record in 2000**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/3/1	19	23	4	14	13.2	8.0	*			136.33		8,640,000		5,028,480			13,668,480
2000/3/2	25	0	0	5	5.5	13.0	*			136.30		12,600,000		5,132,160			17,732,160
2000/3/3	3	38	0	21	13.4	0.0	*			136.33		12,960,000		5,365,440			18,325,440
2000/3/4	62	42	0	11	24.6	28.0	*			136.35		12,960,000		5,425,920			18,385,920
2000/3/5	36	0	0	31	10.9	58.0	*			136.35		12,960,000		5,313,600			18,273,600
2000/3/6	32	9	7	26	14.8	0.0	*			136.33		12,960,000		5,408,640			18,368,640
2000/3/7	11	1	6	4	5.4	71.0	*			136.25		15,480,000		5,291,280			20,771,280
2000/3/8	0	0	0	17	2.1	0.0	*			136.03		17,280,000		5,300,640			22,580,640
2000/3/9	0	45	0	4	12.5	25.0	*			135.95		17,280,000		5,348,160			22,628,160
2000/3/10	0	2	0	20	3.0	55.0	*			135.78		15,300,000		5,425,920			20,725,920
2000/3/11	5	0	10	4	5.6	18.0	*			135.55		12,960,000		5,425,920			18,385,920
2000/3/12	16	0	9	0	6.8	0.0	*			135.46		12,960,000		5,387,040			18,347,040
2000/3/13	10	19	0	2	7.3	0.0	*			135.46		8,640,000		5,270,400			13,910,400
2000/3/14	70	34	0	50	28.9	21.0	*			135.55		8,640,000		5,270,400			13,910,400
2000/3/15	7	12	4	25	9.3	27.0	*			135.70		8,640,000		5,270,400			13,910,400
2000/3/16	0	10	0	25	5.8	0.0	*			135.64		8,640,000		5,270,400			13,910,400
2000/3/17	0	0	20	0	8.3	0.0	*			135.44		8,640,000		5,270,400			13,910,400
2000/3/18	0	9	5	0	4.5	25.0	*			135.25		8,640,000		5,279,040			13,919,040
2000/3/19	0	10	0	1	2.8	0.0	*			135.11		8,640,000		5,287,680			13,927,680
2000/3/20	0	5	0	6	2.1	18.0	*			135.10		720,000		660,960			1,380,960
2000/3/21	0	12	4	6	5.6	25.0	*			135.23		0		0			0
2000/3/22	0	6	0	2	1.9	39.0	*			135.30		0		0			0
2000/3/23	32	0	15	4	12.9	22.0	*			135.35		0		0			0
2000/3/24	0	0	0	0	0.0	10.0	*			135.43		0		0			0
2000/3/25	6	0	0	0	1.2	25.0	*			135.52		0		0			0
2000/3/26	10	0	0	0	1.9	14.0	*			135.61		0		0			0
2000/3/27	0	0	0	0	0.0	5.0	*			135.70		0		810,000			810,000
2000/3/28	20	9	0	0	6.3	0.0	*			135.78		0		864,000			864,000
2000/3/29	0	0	0	0	0.0	0.0	*			135.84		0		1,296,000			1,296,000
2000/3/30	8	2	0	0	2.1	0.0	*			135.88		0		1,296,000			1,296,000
2000/3/31	0	8	0	0	2.1	0.0	*			135.92		0		1,026,000			1,026,000
Total/Average	372	296	84	278	220.7	507.0	0.0	#DIV/0!	#DIV/0!	135.74		225,540,000		106,724,880		0.00	332,264,880

Note : \* \* \* : No data is available

**Wonogiri Dam Operation Data Record in 2000**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lo (mm)	Jatiro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/4/1	0	0	0	14	1.8	0.0	*	*	135.96	0				1,026,000			1,026,000
2000/4/2	3	12	0	4	4.3	6.0	*	*	136.11	0				1,296,000			1,296,000
2000/4/3	0	0	0	20	2.5	26.0	*	*	136.20	0				1,296,000			1,296,000
2000/4/4	0	13	0	10	4.7	0.0	*	*	136.24	0				1,296,000			1,296,000
2000/4/5	0	25	2	11	8.9	21.0	*	*	136.26	0				1,719,360			1,719,360
2000/4/6	5	10	20	9	13.0	0.0	*	*	136.39	0				2,685,600			2,685,600
2000/4/7	13	30	15	6	17.5	0.0	*	*	136.69	0				3,456,000			3,456,000
2000/4/8	10	0	0	7	2.8	23.0	*	*	136.81	0				3,240,000			3,240,000
2000/4/9	10	9	0	10	5.6	0.0	*	*	136.80	0				4,838,400			4,838,400
2000/4/10	0	10	7	20	8.1	10.0	*	*	136.73	14,400,000				4,993,920			19,393,920
2000/4/11	16	53	0	58	24.5	0.0	*	*	136.65	9,720,000				4,999,680			14,719,680
2000/4/12	5	11	0	6	4.7	44.0	*	*	136.54	8,640,000				4,993,920			13,633,920
2000/4/13	0	0	9	10	5.0	0.0	*	*	136.52	8,640,000				4,993,920			13,633,920
2000/4/14	0	63	0	34	21.1	0.0	*	*	136.56	12,420,000				5,063,040			17,483,040
2000/4/15	0	6	0	0	1.6	24.0	*	*	136.48	12,960,000				5,080,320			18,040,320
2000/4/16	17	5	0	12	6.1	0.0	*	*	136.43	12,960,000				5,080,320			18,040,320
2000/4/17	4	47	0	0	13.3	20.0	*	*	136.35	12,960,000				5,080,320			18,040,320
2000/4/18	3	11	0	52	10.0	0.0	*	*	136.25	12,960,000				5,080,320			18,040,320
2000/4/19	6	8	6	23	8.7	0.0	*	*	136.05	12,960,000				5,080,320			18,040,320
2000/4/20	0	0	15	0	6.2	12.0	*	*	136.01	9,360,000				5,018,400			14,378,400
2000/4/21	8	17	0	54	12.8	0.0	*	*	136.01	8,640,000				4,976,640			13,616,640
2000/4/22	18	3	0	0	4.3	0.0	*	*	135.98	8,640,000				4,976,640			13,616,640
2000/4/23	10	11	0	21	7.5	0.0	*	*	135.99	3,600,000				4,936,320			8,536,320
2000/4/24	0	0	0	0	0.0	24.0	*	*	136.03	0				0			0
2000/4/25	10	14	2	0	6.5	47.0	*	*	136.11	0				0			0
2000/4/26	0	2	3	0	1.8	36.0	*	*	136.18	0				0			0
2000/4/27	28	4	0	0	6.5	0.0	*	*	136.24	0				0			0
2000/4/28	0	4	0	0	1.1	0.0	*	*	136.28	0				0			0
2000/4/29	0	0	0	0	0.0	0.0	*	*	136.33	0				972,000			972,000
2000/4/30	0	0	0	0	0.0	0.0	*	*	136.42	0				1,296,000			1,296,000
Total/Average	166	368	79	381	210.8	293.0	0.0	#DIV/0!	136.32	148,860,000				93,475,440			242,335,440

Note : " \* " : No data is available



**Wonogiri Dam Operation Data Record in 2000**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir					Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )	13	14	15	16
2000/5/1	4	33	9	10	14.6	0.0	*	9	10	11	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/2	0	0	8	3	3.7	5.0	*			136.48	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/3	0	0	0	11	1.4	0.0	*			136.59	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/4	24	23	0	9	11.9	0.0	*			136.79	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/5	0	24	0	11	7.8	58.0	*			136.84	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/6	0	0	0	7	0.9	0.0	*			136.88	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/7	0	13	0	6	4.2	38.0	*			136.88	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/8	0	0	0	3	0.4	0.0	*			136.88	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/9	0	0	0	0	0.0	0.0	*			136.88	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/10	0	0	0	0	0.0	0.0	*			136.87	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/11	0	0	0	0	0.0	0.0	*			136.86	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/12	0	0	0	2	0.3	0.0	*			136.85	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/13	13	7	0	3	4.8	0.0	*			136.83	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/14	0	0	0	5	0.6	0.0	*			136.82	0	0	1,296,000	0	1,296,000	1,296,000
2000/5/15	10	0	0	0	1.9	0.0	*			136.82	0	0	1,638,000	0	1,638,000	1,638,000
2000/5/16	0	0	0	0	0.0	0.0	*			136.80	0	0	1,728,000	0	1,728,000	1,728,000
2000/5/17	0	0	0	0	0.0	0.0	*			136.79	0	0	1,728,000	0	1,728,000	1,728,000
2000/5/18	0	0	0	2	0.3	0.0	*			136.77	0	0	1,728,000	0	1,728,000	1,728,000
2000/5/19	0	0	0	3	0.4	0.0	*			136.79	0	0	1,728,000	0	1,728,000	1,728,000
2000/5/20	33	23	0	0	12.5	0.0	*			136.82	0	0	1,728,000	0	1,728,000	1,728,000
2000/5/21	0	0	0	0	0.0	72.0	*			136.85	0	0	1,728,000	0	1,728,000	1,728,000
2000/5/22	0	24	0	0	6.4	0.0	*			136.89	0	0	2,188,800	0	2,188,800	2,188,800
2000/5/23	0	0	5	0	2.1	62.0	*			136.89	0	0	2,280,960	0	2,280,960	2,280,960
2000/5/24	12	4	0	0	3.4	0.0	*			136.89	0	0	2,280,960	0	2,280,960	2,280,960
2000/5/25	0	0	0	0	0.0	0.0	*			136.85	0	0	2,280,960	0	2,280,960	2,280,960
2000/5/26	0	0	0	0	0.0	0.0	*			136.83	0	0	2,280,960	0	2,280,960	2,280,960
2000/5/27	0	0	0	0	0.0	0.0	*			136.80	0	0	2,280,960	0	2,280,960	2,280,960
2000/5/28	0	0	0	0	0.0	0.0	*			136.78	0	0	2,280,960	0	2,280,960	2,280,960
2000/5/29	0	5	0	0	1.3	0.0	*			136.76	0	0	2,280,960	0	2,280,960	2,280,960
2000/5/30	0	0	0	0	0.0	0.0	*			136.74	0	0	2,280,960	0	2,280,960	2,280,960
2000/5/31	0	0	0	0	0.0	0.0	*			136.73	0	0	2,280,960	0	2,280,960	2,280,960
Total/Average	96	156	22	75	78.8	233.0	0.0	#DIV/0!	#DIV/0!	136.80	0	0	52,867,440	0	52,867,440	52,867,440

Note : \* \* \* \* : No data is available

**Wonogiri Dam Operation Data Record in 2000**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/6/1	0	0	0	2	0.3	7.0	*			136.69		0		2,280,960			2,280,960
2000/6/2	15	0	0	3	3.3	0.0	*			136.67		0		2,280,960			2,280,960
2000/6/3	0	0	0	0	0.0	0.0	*			136.69		0		2,287,440			2,287,440
2000/6/4	15	0	12	3	8.3	0.0	*			136.75		0		2,280,960			2,280,960
2000/6/5	10	23	0	7	9.0	33.0	*			136.79		0		2,280,960			2,280,960
2000/6/6	0	5	0	2	1.6	0.0	*			136.83		0		0			0
2000/6/7	0	0	4	0	1.7	0.0	*			136.85		0		0			0
2000/6/8	0	0	0	0	0.0	13.0	*			136.84		0		1,080,000			1,080,000
2000/6/9	0	0	0	0	0.0	0.0	*			136.82		0		1,296,000			1,296,000
2000/6/10	0	0	0	0	0.0	0.0	*			136.80		0		1,296,000			1,296,000
2000/6/11	0	0	0	0	0.0	0.0	*			136.79		0		1,296,000			1,296,000
2000/6/12	0	0	0	3	0.4	0.0	*			136.76		0		2,165,400			2,165,400
2000/6/13	0	0	0	0	0.0	0.0	*			136.73		0		2,289,600			2,289,600
2000/6/14	0	0	0	0	0.0	0.0	*			136.70		0		2,289,600			2,289,600
2000/6/15	0	0	0	2	0.3	0.0	*			136.67		0		2,289,600			2,289,600
2000/6/16	0	0	0	0	0.0	0.0	*			136.66		0		1,420,200			1,420,200
2000/6/17	0	0	0	0	0.0	0.0	*			136.64		0		1,382,400			1,382,400
2000/6/18	20	0	0	0	3.9	0.0	*			136.62		0		1,382,400			1,382,400
2000/6/19	2	0	0	0	0.4	0.0	*			136.59		0		2,214,000			2,214,000
2000/6/20	0	0	0	0	0.0	0.0	*			136.58		0		2,289,600			2,289,600
2000/6/21	0	0	0	0	0.0	0.0	*			136.54		0		2,289,600			2,289,600
2000/6/22	0	0	0	0	0.0	17.0	*			136.51		0		2,303,640			2,303,640
2000/6/23	0	0	0	0	0.0	0.0	*			136.48		0		2,315,520			2,315,520
2000/6/24	0	0	0	0	0.0	0.0	*			136.45		0		2,315,520			2,315,520
2000/6/25	0	0	0	0	0.0	0.0	*			136.42		0		2,315,520			2,315,520
2000/6/26	0	0	0	0	0.0	0.0	*			136.39		0		2,316,960			2,316,960
2000/6/27	0	0	0	0	0.0	0.0	*			136.35		0		2,324,160			2,324,160
2000/6/28	0	0	0	0	0.0	0.0	*			136.32		0		2,324,160			2,324,160
2000/6/29	0	0	0	0	0.0	0.0	*			136.29		0		2,324,160			2,324,160
2000/6/30	0	0	0	0	0.0	0.0	*			136.25		0		2,331,360			2,331,360
<b>Total/Average</b>	<b>62</b>	<b>28</b>	<b>16</b>	<b>22</b>	<b>28.9</b>	<b>70.0</b>	<b>0.0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>136.62</b>		<b>0</b>		<b>57,262,680</b>			<b>57,262,680</b>

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2000

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/7/1	0	0	0	0	0.0	0.0	*		136.20	0				2,635,200			2,635,200
2000/7/2	0	0	0	0	0.0	0.0	*		136.16	0				2,678,400			2,678,400
2000/7/3	0	0	0	0	0.0	0.0	*		136.11	0				2,678,400			2,678,400
2000/7/4	0	0	0	0	0.0	0.0	*		136.07	0				2,678,400			2,678,400
2000/7/5	0	0	0	0	0.0	0.0	*		136.02	0				2,678,400			2,678,400
2000/7/6	0	0	0	0	0.0	0.0	*		135.98	0				2,678,400			2,678,400
2000/7/7	0	0	0	0	0.0	0.0	*		135.93	0				2,678,400			2,678,400
2000/7/8	0	0	0	0	0.0	0.0	*		135.88	0				2,705,760			2,705,760
2000/7/9	0	0	0	0	0.0	0.0	*		135.83	0				2,712,960			2,712,960
2000/7/10	0	0	0	0	0.0	0.0	*		135.78	0				2,712,960			2,712,960
2000/7/11	0	0	0	0	0.0	0.0	*		135.74	0				2,712,960			2,712,960
2000/7/12	0	0	0	0	0.0	0.0	*		135.69	0				2,712,960			2,712,960
2000/7/13	0	0	0	0	0.0	0.0	*		135.64	0				2,712,960			2,712,960
2000/7/14	0	0	0	0	0.0	0.0	*		135.58	0				2,712,960			2,712,960
2000/7/15	0	0	0	0	0.0	0.0	*		135.54	0				2,729,520			2,729,520
2000/7/16	0	0	0	0	0.0	0.0	*		135.48	0				2,730,240			2,730,240
2000/7/17	0	0	0	0	0.0	0.0	*		135.43	0				2,730,240			2,730,240
2000/7/18	0	0	0	0	0.0	0.0	*		135.38	0				2,741,040			2,741,040
2000/7/19	0	0	0	0	0.0	0.0	*		135.33	0				2,747,520			2,747,520
2000/7/20	0	0	0	0	0.0	0.0	*		135.27	0				2,747,520			2,747,520
2000/7/21	0	0	0	0	0.0	0.0	*		135.22	0				2,747,520			2,747,520
2000/7/22	0	0	0	0	0.0	0.0	*		135.16	0				2,747,520			2,747,520
2000/7/23	0	0	0	0	0.0	0.0	*		135.11	0				2,646,000			2,646,000
2000/7/24	0	0	0	0	0.0	0.0	*		135.07	0				2,764,800			2,764,800
2000/7/25	0	0	0	0	0.0	0.0	*		135.01	0				2,764,800			2,764,800
2000/7/26	0	0	0	0	0.0	0.0	*		134.95	0				2,764,800			2,764,800
2000/7/27	0	0	0	0	0.0	0.0	*		134.89	0				2,764,800			2,764,800
2000/7/28	0	0	0	0	0.0	0.0	*		134.84	0				2,764,800			2,764,800
2000/7/29	0	0	0	0	0.0	0.0	*		134.79	0				2,764,800			2,764,800
2000/7/30	0	0	0	0	0.0	0.0	*		134.74	0				2,764,800			2,764,800
2000/7/31	0	0	0	0	0.0	0.0	*		134.69	0				2,764,800			2,764,800
Total/Average	0	0	0	0	0.0	0.0	0.0	#DIV/0!	#DIV/0!	135.47	0	0	0	84,374,640	0.00	0	84,374,640

Note : \* \* \* \* : No data is available

Wonggiri Dam Operation Data Record in 2000

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonggiri Dam (mm)	Pan Evaporation at Wonggiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/8/1	0	0	0	0	0.0	0.0	*		134.63	0				2,799,360			2,799,360
2000/8/2	0	0	0	0	0.0	0.0	*		134.56	0				3,058,560			3,058,560
2000/8/3	0	0	0	0	0.0	0.0	*		134.49	0				3,110,400			3,110,400
2000/8/4	0	0	0	0	0.0	0.0	*		134.42	0				3,110,400			3,110,400
2000/8/5	0	0	0	0	0.0	0.0	*		134.36	0				3,110,400			3,110,400
2000/8/6	0	0	0	0	0.0	0.0	*		134.30	0				3,110,400			3,110,400
2000/8/7	0	0	0	0	0.0	0.0	*		134.23	0				3,110,400			3,110,400
2000/8/8	0	0	0	0	0.0	0.0	*		134.17	0				3,110,400			3,110,400
2000/8/9	0	0	0	0	0.0	0.0	*		134.11	0				3,110,400			3,110,400
2000/8/10	0	0	0	0	0.0	0.0	*		134.04	0				3,110,400			3,110,400
2000/8/11	0	0	0	0	0.0	0.0	*		133.98	0				3,118,320			3,118,320
2000/8/12	0	0	0	0	0.0	0.0	*		133.91	0				3,127,680			3,127,680
2000/8/13	0	0	0	0	0.0	0.0	*		133.84	0				3,127,680			3,127,680
2000/8/14	0	0	0	0	0.0	0.0	*		133.78	0				3,127,680			3,127,680
2000/8/15	0	0	0	0	0.0	0.0	*		133.71	0				3,127,680			3,127,680
2000/8/16	0	0	0	0	0.0	0.0	*		133.67	0				2,701,080			2,701,080
2000/8/17	0	0	0	0	0.0	0.0	*		133.63	0				2,445,120			2,445,120
2000/8/18	0	0	0	0	0.0	0.0	*		133.57	0				2,445,120			2,445,120
2000/8/19	0	0	0	0	0.0	0.0	*		133.52	0				2,445,120			2,445,120
2000/8/20	0	0	0	0	0.0	0.0	*		133.47	0				2,445,120			2,445,120
2000/8/21	0	0	0	0	0.0	0.0	*		133.42	0				2,445,120			2,445,120
2000/8/22	0	0	0	0	0.0	0.0	*		133.36	0				2,445,120			2,445,120
2000/8/23	0	0	0	0	0.0	0.0	*		133.31	0				2,445,120			2,445,120
2000/8/24	0	0	0	0	0.0	0.0	*		133.29	0				2,445,120			2,445,120
2000/8/25	0	0	0	0	0.4	0.4	*		133.20	0				2,450,880			2,450,880
2000/8/26	0	0	0	0	0.4	0.4	*		133.14	0				2,453,760			2,453,760
2000/8/27	0	0	0	0	1.0	1.0	*		133.10	0				2,459,160			2,459,160
2000/8/28	0	0	0	0	0.1	29.0	*		133.04	0				2,462,400			2,462,400
2000/8/29	0	0	0	0	14.5	0.0	*		133.00	0				2,462,400			2,462,400
2000/8/30	0	0	0	0	0.0	0.0	*		132.95	0				2,471,040			2,471,040
2000/8/31	0	59	0	1	15.9	0.0	*		132.88	0				2,471,040			2,471,040
Total/Average	0	59	35	16	32.2	29.0	0.0	#DIV/0!	133.71	0				85,862,880	0.00		85,862,880

Note : \* \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2000

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/9/1	0	11	0	0	2.9	0.0	0.0	*	132.86	0	0	0	0	2,471,040	0	0	2,471,040
2000/9/2	0	0	0	0	0.0	0.0	0.0	*	132.81	0	0	0	0	2,471,040	0	0	2,471,040
2000/9/3	0	0	0	0	0.0	0.0	0.0	*	132.77	0	0	0	0	2,476,440	0	0	2,476,440
2000/9/4	0	0	0	0	0.0	0.0	0.0	*	132.71	0	0	0	0	2,479,680	0	0	2,479,680
2000/9/5	0	0	0	0	0.0	0.0	0.0	*	132.66	0	0	0	0	2,479,680	0	0	2,479,680
2000/9/6	0	0	0	0	0.0	0.0	0.0	*	132.60	0	0	0	0	2,479,680	0	0	2,479,680
2000/9/7	0	0	0	0	0.0	0.0	0.0	*	132.54	0	0	0	0	2,481,840	0	0	2,481,840
2000/9/8	0	0	0	0	0.0	0.0	0.0	*	132.48	0	0	0	0	2,488,320	0	0	2,488,320
2000/9/9	0	0	0	0	0.0	0.0	0.0	*	132.41	0	0	0	0	2,488,320	0	0	2,488,320
2000/9/10	0	0	0	0	0.0	0.0	0.0	*	132.35	0	0	0	0	2,488,320	0	0	2,488,320
2000/9/11	0	0	0	0	0.0	0.0	0.0	*	132.29	0	0	0	0	2,495,160	0	0	2,495,160
2000/9/12	0	0	0	0	0.0	0.0	0.0	*	132.22	0	0	0	0	2,496,960	0	0	2,496,960
2000/9/13	0	0	0	0	0.0	0.0	0.0	*	132.16	0	0	0	0	2,496,960	0	0	2,496,960
2000/9/14	0	0	0	0	0.0	0.0	0.0	*	132.10	0	0	0	0	2,501,280	0	0	2,501,280
2000/9/15	0	0	0	0	0.0	0.0	0.0	*	132.04	0	0	0	0	2,505,600	0	0	2,505,600
2000/9/16	0	0	0	0	0.0	0.0	0.0	*	131.98	0	0	0	0	2,514,240	0	0	2,514,240
2000/9/17	0	0	0	0	0.0	0.0	0.0	*	131.90	0	0	0	0	2,514,240	0	0	2,514,240
2000/9/18	0	0	0	0	0.0	0.0	0.0	*	131.84	0	0	0	0	2,521,440	0	0	2,521,440
2000/9/19	0	0	0	0	0.0	0.0	0.0	*	131.78	0	0	0	0	2,529,720	0	0	2,529,720
2000/9/20	0	0	0	0	0.0	0.0	0.0	*	131.73	0	0	0	0	2,262,240	0	0	2,262,240
2000/9/21	0	0	0	0	0.0	0.0	0.0	*	131.68	0	0	0	0	1,897,560	0	0	1,897,560
2000/9/22	0	0	0	0	0.0	0.0	0.0	*	131.63	0	0	0	0	1,786,680	0	0	1,786,680
2000/9/23	0	0	0	0	0.0	0.0	0.0	*	131.57	0	0	0	0	2,237,760	0	0	2,237,760
2000/9/24	0	0	0	0	0.0	0.0	0.0	*	131.51	0	0	0	0	2,239,200	0	0	2,239,200
2000/9/25	0	0	0	0	0.0	0.0	0.0	*	131.45	0	0	0	0	2,246,400	0	0	2,246,400
2000/9/26	0	0	0	0	0.0	0.0	0.0	*	131.37	0	0	0	0	2,628,720	0	0	2,628,720
2000/9/27	0	0	0	0	0.0	0.0	0.0	*	131.29	0	0	0	0	2,764,080	0	0	2,764,080
2000/9/28	0	0	0	0	0.0	26.0	0.0	*	131.21	0	0	0	0	2,764,800	0	0	2,764,800
2000/9/29	0	0	0	0	0.0	0.0	0.0	*	131.13	0	0	0	0	2,764,800	0	0	2,764,800
2000/9/30	0	0	0	0	0.0	0.0	0.0	*	131.05	0	0	0	0	2,764,800	0	0	2,764,800
Total/Average	0	11	0	0	2.9	26.0	0.0	0.0	#DIV/0!	132.00	0	0	0	73,737,000	0	0	73,737,000

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2000

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/10/1	0	0	0	0	0.0	0.0	0.0	*		130.98			0	2,764,800			2,764,800
2000/10/2	0	0	0	0	0.0	0.0	0.0	*		130.90			0	2,764,800			2,764,800
2000/10/3	0	0	0	0	0.0	0.0	0.0	*		130.82			0	2,764,800			2,764,800
2000/10/4	0	0	0	0	0.0	0.0	0.0	*		130.76			0	2,384,640			2,384,640
2000/10/5	0	0	0	0	0.0	0.0	0.0	*		130.70			0	2,357,280			2,357,280
2000/10/6	10	5	0	0	3.3	0.0	0.0	*		130.63			0	2,358,720			2,358,720
2000/10/7	0	0	0	0	0.0	0.0	0.0	*		130.56			0	2,358,720			2,358,720
2000/10/8	0	0	0	0	0.0	0.0	0.0	*		130.50			0	1,941,120			1,941,120
2000/10/9	0	0	0	0	0.0	0.0	0.0	*		130.44			0	1,857,600			1,857,600
2000/10/10	0	0	0	0	0.0	0.0	0.0	*		130.38			0	1,857,600			1,857,600
2000/10/11	7	0	0	0	1.4	0.0	0.0	*		130.32			0	1,857,600			1,857,600
2000/10/12	0	1	0	0	0.3	0.0	0.0	*		130.26			0	1,869,120			1,869,120
2000/10/13	0	2	0	0	0.5	10.0	0.0	*		130.22			0	1,874,880			1,874,880
2000/10/14	0	0	0	0	0.4	0.0	0.0	*		130.19			0	1,470,960			1,470,960
2000/10/15	8	36	0	2	11.4	27.0	0.0	*		130.16			0	1,434,240			1,434,240
2000/10/16	0	39	0	2	10.7	5.0	0.0	*		130.18			0	836,640			836,640
2000/10/17	0	0	21	6	9.4	7.0	0.0	*		130.18			0	776,880			776,880
2000/10/18	0	28	9	51	17.6	23.0	0.0	*		130.30			0	118,080			118,080
2000/10/19	0	32	0	0	8.5	44.0	0.0	*		130.31			0	776,880			776,880
2000/10/20	0	0	0	0	0.0	28.0	0.0	*		130.32			0	836,640			836,640
2000/10/21	10	0	0	0	1.9	0.0	0.0	*		130.36			0	776,880			776,880
2000/10/22	0	0	0	0	0.0	0.0	0.0	*		130.33			0	776,880			776,880
2000/10/23	0	0	0	0	0.0	0.0	0.0	*		130.31			0	776,880			776,880
2000/10/24	0	0	0	0	0.0	0.0	0.0	*		130.34			0	776,880			776,880
2000/10/25	0	0	0	3	0.4	0.0	0.0	*		130.32			0	776,880			776,880
2000/10/26	0	15	0	3	4.4	0.0	0.0	*		130.34			0	776,880			776,880
2000/10/27	15	34	0	4	12.5	12.0	0.0	*		130.41			0	723,600			723,600
2000/10/28	0	59	22	0	24.9	14.0	0.0	*		130.55			0	776,880			776,880
2000/10/29	0	0	0	0	0.0	16.0	0.0	*		130.57			0	991,080			991,080
2000/10/30	5	0	0	0	1.0	0.0	0.0	*		130.56			0	539,280			539,280
2000/10/31	0	29	0	0	7.7	19.0	0.0	*		130.54			0	836,640			836,640
Total/Average	55	280	52	74	116.2	209.0	0.0	0.0	#DIV/0!	130.44			0	43,790,760	0.00		43,790,760

Note : \* \* \* \* : No data is available

**Wonogiri Dam Operation Data Record in 2000**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/11/1	0	0	0	0	0.0	0.0	0.0	*		130.44		0		776,880			776,880
2000/11/2	0	0	0	0	0.0	0.0	0.0	*		130.63		0		1,374,480			1,374,480
2000/11/3	19	0	0	2	3.9	0.0	0.0	*		130.66		0		836,640			836,640
2000/11/4	0	0	0	1	0.1	0.0	0.0	*		130.66		0		1,075,680			1,075,680
2000/11/5	20	0	0	0	3.9	6.0	0.0	*		130.67		0		836,640			836,640
2000/11/6	4	19	0	0	12.7	0.0	0.0	*		130.63		0		1,434,240			1,434,240
2000/11/7	0	0	0	8	1.0	0.0	0.0	*		130.62		0		1,231,560			1,231,560
2000/11/8	0	0	0	7	0.9	0.0	0.0	*		130.63		0		1,249,920			1,249,920
2000/11/9	32	37	29	0	28.1	0.0	0.0	*		130.73		0		0			0
2000/11/10	0	0	0	18	2.3	12.0	0.0	*		130.79		0		1,750,320			1,750,320
2000/11/11	0	0	0	18	2.3	0.0	0.0	*		130.86		0		776,880			776,880
2000/11/12	28	18	21	0	18.9	0.0	0.0	*		131.05		0		239,040			239,040
2000/11/13	0	48	0	1	12.9	35.0	0.0	*		131.17		0		179,280			179,280
2000/11/14	0	15	0	7	4.9	0.0	0.0	*		131.35		0		418,320			418,320
2000/11/15	0	21	41	1	22.7	38.0	0.0	*		131.44		0		0			0
2000/11/16	0	0	0	0	0.0	13.0	0.0	*		131.54		0		418,320			418,320
2000/11/17	0	8	0	0	2.1	5.0	0.0	*		131.61		0		298,800			298,800
2000/11/18	34	18	0	0	11.4	8.0	0.0	*		131.67		0		239,040			239,040
2000/11/19	0	36	0	0	9.6	0.0	0.0	*		131.75		0		59,760			59,760
2000/11/20	0	20	0	0	5.3	19.0	0.0	*		131.83		0		1,238,760			1,238,760
2000/11/21	0	0	0	1	0.1	0.0	0.0	*		131.81		0		2,536,560			2,536,560
2000/11/22	0	6	0	22	4.4	0.0	0.0	*		131.80		0		641,160			641,160
2000/11/23	0	19	0	21	7.7	0.0	0.0	*		131.89		0		2,982,960			2,982,960
2000/11/24	0	0	0	0	0.0	35.0	0.0	*		131.87		0		2,421,360			2,421,360
2000/11/25	0	3	0	0	0.8	0.0	0.0	*		131.83		0		2,799,360			2,799,360
2000/11/26	42	10	0	0	10.8	0.0	0.0	*		131.80		0		2,799,360			2,799,360
2000/11/27	5	22	0	0	6.8	0.0	0.0	*		131.79		0		2,799,360			2,799,360
2000/11/28	11	8	0	0	4.3	0.0	0.0	*		131.78		0		2,799,360			2,799,360
2000/11/29	22	0	28	0	15.9	0.0	0.0	*		131.76		0		2,799,360			2,799,360
2000/11/30	0	0	27	0	11.2	6.0	0.0	*		131.71		0		2,799,360			2,799,360
<b>Total/Average</b>	<b>217</b>	<b>308</b>	<b>146</b>	<b>162</b>	<b>205.0</b>	<b>177.0</b>	<b>0.0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>131.29</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>39,812,760</b>	<b>0</b>	<b>0</b>	<b>39,812,760</b>

Note : "\*" : No data is available

**Wonogiri Dam Operation Data Record in 2000**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir				Total Outflow from Reservoir			
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2000/12/1	0	6	0	10	2.9	0.0	*			131.65		0		2,799,360			2,799,360
2000/12/2	0	13	0	0	3.5	5.0	*			131.62		0		2,799,360			2,799,360
2000/12/3	0	0	0	0	0.0	7.0	*			131.57		0		2,799,360			2,799,360
2000/12/4	0	0	0	0	0.0	0.0	*			131.52		0		2,799,360			2,799,360
2000/12/5	0	0	0	0	0.0	0.0	*			131.45		0		2,345,760			2,345,760
2000/12/6	0	0	0	0	0.0	0.0	*			131.39		0		2,851,200			2,851,200
2000/12/7	0	0	0	0	0.0	0.0	*			131.33		0		2,851,200			2,851,200
2000/12/8	0	0	0	0	0.0	0.0	*			131.26		0		2,867,760			2,867,760
2000/12/9	0	0	0	0	0.0	0.0	*			131.18		0		2,868,480			2,868,480
2000/12/10	0	0	0	0	0.0	0.0	*			131.12		0		2,031,840			2,031,840
2000/12/11	0	7	0	11	3.2	0.0	*			131.13		0		874,800			874,800
2000/12/12	0	35	0	58	16.6	23.0	*			131.18		0		721,440			721,440
2000/12/13	10	55	43	47	40.3	8.0	*			131.74		0		0			0
2000/12/14	0	17	38	4	20.8	63.0	*			131.93		0		0			0
2000/12/15	0	6	0	0	1.6	49.0	*			131.99		0		0			0
2000/12/16	0	0	0	0	0.0	0.0	*			132.04		0		0			0
2000/12/17	0	0	0	0	0.0	13.0	*			132.09		0		0			0
2000/12/18	0	0	0	0	0.0	26.0	*			132.10		0		804,240			804,240
2000/12/19	0	0	0	0	0.0	4.0	*			132.09		0		1,457,640			1,457,640
2000/12/20	0	0	0	0	0.0	0.0	*			132.06		0		1,533,960			1,533,960
2000/12/21	0	0	0	0	0.0	0.0	*			132.03		0		1,780,920			1,780,920
2000/12/22	0	0	0	0	0.0	0.0	*			131.98		0		2,270,880			2,270,880
2000/12/23	0	0	0	0	0.0	0.0	*			131.91		0		2,911,680			2,911,680
2000/12/24	0	0	0	0	0.0	0.0	*			131.85		0		2,911,680			2,911,680
2000/12/25	0	0	0	0	0.0	0.0	*			131.79		0		2,918,880			2,918,880
2000/12/26	20	0	0	0	3.9	0.0	*			131.71		0		2,920,320			2,920,320
2000/12/27	21	0	0	0	4.1	0.0	*			131.65		0		2,931,120			2,931,120
2000/12/28	0	0	21	2	8.9	0.0	*			131.61		0		2,937,600			2,937,600
2000/12/29	0	0	0	0	0.0	0.0	*			131.53		0		2,937,600			2,937,600
2000/12/30	0	0	0	0	0.0	0.0	*			131.45		0		2,937,600			2,937,600
2000/12/31	0	0	0	0	0.0	16.0	*			131.45		0		2,937,600			2,937,600
Total/Average	51	139	102	132	105.7	198.0	0.0	#DIV/0!	#DIV/0!	131.66		0		59,864,040		0.00	59,864,040

Note : \* \* \* \* : No data is available



**Wonogiri Dam Operation Data Record in 2001**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/1/1	0	0	0	0	0.0	5.5	*			131.37		2,160,000		2,937,600			5,097,600
2001/1/2	0	30	0	2	8.3	6.0	*			131.30				2,954,880			2,954,880
2001/1/3	0	0	0	52	6.5	1.0	*			131.25				1,814,040			1,814,040
2001/1/4	20	6	6	3	8.3	5.0	*			131.23				349,920			349,920
2001/1/5	0	0	8	17	5.4	30.0	*			131.31				0			0
2001/1/6	59	9	0	6	14.6	12.5	*			131.44				0			0
2001/1/7	6	9	38	11	20.7	4.0	*			131.60				0			0
2001/1/8	6	38	0	13	12.9	0.8	*			131.76				678,240			678,240
2001/1/9	4	25	0	69	16.1	7.5	*			131.87				169,560			169,560
2001/1/10	2	27	43	45	31.0	70.0	*			132.10				55,440			55,440
2001/1/11	3	63	9	3	21.5	30.0	*			132.33				174,960			174,960
2001/1/12	2	6	15	2	8.5	0.0	*			132.41				172,800			172,800
2001/1/13	0	0	11	1	4.7	0.0	*			132.47				754,560			754,560
2001/1/14	0	0	8	0	3.3	0.8	*			132.48				230,400			230,400
2001/1/15	0	0	21	5	9.3	7.3	*			132.48				1,323,720			1,323,720
2001/1/16	0	0	0	37	4.6	1.0	*			132.46				2,287,440			2,287,440
2001/1/17	38	7	7	33	16.3	7.8	*			132.43				3,082,320			3,082,320
2001/1/18	23	9	6	14	11.1	6.0	*			132.48				3,511,440			3,511,440
2001/1/19	0	12	0	43	8.6	4.5	*			132.51				2,306,160			2,306,160
2001/1/20	2	6	0	0	2.0	4.0	*			132.60				1,123,200			1,123,200
2001/1/21	0	38	58	3	34.5	47.5	*			132.77				0			0
2001/1/22	14	41	5	77	25.4	3.0	*			132.97				1,230,120			1,230,120
2001/1/23	3	28	0	2	8.3	15.5	*			133.08				886,680			886,680
2001/1/24	10	0	0	93	13.6	0.0	*			133.34				1,328,400			1,328,400
2001/1/25	0	0	0	0	0.0	7.0	*			133.39				2,357,280			2,357,280
2001/1/26	0	0	38	0	15.7	1.5	*			133.43				1,654,200			1,654,200
2001/1/27	8	0	0	56	8.6	2.5	*			133.50				2,540,880			2,540,880
2001/1/28	4	15	0	45	10.4	21.0	*			133.62				2,299,680			2,299,680
2001/1/29	17	16	0	0	7.6	31.0	*			133.66				1,997,640			1,997,640
2001/1/30	67	33	0	52	28.3	1.5	*			133.95				2,512,080			2,512,080
2001/1/31	0	6	0	0	1.6	5.0	*			134.00				2,904,120			2,904,120
Total/Average	288	424	273	684	367.6	339.2	0.0	#DIV/0!	#DIV/0!	132.50		2,160,000		43,637,760		0.00	45,797,760

Note : \* \* \* \* : No data is available



**Wonogiri Dam Operation Data Record in 2001**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir					Total Outflow from Reservoir		
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/3/1																	
2001/3/1	1	0	0	0	0.2	28.0	*			136.20		0		2,376,000			2,376,000
2001/3/2	14	16	46	142	43.8	23.0	*			136.43		0		2,371,320			2,371,320
2001/3/3	50	53	50	7	45.4	1.5	*			136.70		0		2,376,000			2,376,000
2001/3/4	5	29	0	21	11.3	16.0	*			136.66		3,600,000		2,412,000			6,012,000
2001/3/5	12	20	0	15	9.5	5.0	*			136.61		8,640,000		2,430,000			11,070,000
2001/3/6	2	14	0	18	6.4	32.0	*			136.56		8,640,000		2,481,840			11,121,840
2001/3/7	21	0	13	3	9.8	0.0	*			136.50		8,640,000		2,479,680			11,119,680
2001/3/8	5	0	0	0	1.0	0.0	*			136.46		900,000		2,391,840			3,291,840
2001/3/9	0	0	0	0	11.2	0.0	*			136.45		0		2,376,000			2,376,000
2001/3/10	15	0	0	0	2.9	0.0	*			136.47		0		2,376,000			2,376,000
2001/3/11	9	0	25	7	13.0	35.0	*			136.72		0		2,376,000			2,376,000
2001/3/12	10	24	35	53	29.5	8.5	*			136.70		6,840,000		2,410,560			9,250,560
2001/3/13	0	0	0	0	0.0	0.5	*			136.52		8,640,000		2,479,680			11,119,680
2001/3/14	0	0	0	0	0.0	0.0	*			136.47		990,000		2,388,960			3,378,960
2001/3/15	0	0	0	0	0.0	0.0	*			136.45		0		2,376,000			2,376,000
2001/3/16	2	0	49	25	23.8	0.0	*			136.48		0		2,376,000			2,376,000
2001/3/17	85	0	0	0	16.5	10.0	*			136.53		0		2,376,000			2,376,000
2001/3/18	0	0	6	10	3.7	4.3	*			136.55		0		2,376,000			2,376,000
2001/3/19	2	13	0	6	4.6	48.0	*			136.61		0		2,364,480			2,364,480
2001/3/20	9	7	0	0	3.6	1.0	*			136.68		0		2,356,560			2,356,560
2001/3/21	50	0	0	4	10.2	8.5	*			136.70		0		2,350,080			2,350,080
2001/3/22	1	9	0	2	2.8	11.0	*			136.67		7,200,000		2,450,880			9,650,880
2001/3/23	3	7	26	1	13.3	1.5	*			136.58		8,640,000		2,616,120			11,256,120
2001/3/24	6	0	0	0	1.2	69.0	*			136.52		8,640,000		2,511,000			11,151,000
2001/3/25	4	14	12	112	23.5	12.3	*			136.52		8,640,000		2,505,600			11,145,600
2001/3/26	0	24	0	85	17.0	2.0	*			136.55		1,440,000		2,456,280			3,896,280
2001/3/27	42	40	35	10	34.6	3.5	*			136.73		0		2,418,120			2,418,120
2001/3/28	3	25	17	60	21.8	44.5	*			136.87		0		2,474,280			2,474,280
2001/3/29	12	64	0	0	19.4	18.0	*			137.15		11,340,000		2,499,120			13,839,120
2001/3/30	38	18	0	50	18.4	6.5	*			137.23		17,280,000		2,661,120			19,941,120
2001/3/31	0	37	0	20	12.4	16.5	*			137.12		13,320,000		2,685,960			16,005,960
Total/Average	401	414	341	651	410.9	406.1	0.0	#DIV/0!	#DIV/0!	136.62		123,390,000		75,579,480		0.00	198,969,480

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2001

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/4/1	4	0	11	8	6.3	2.5	*			137.02		8,640,000		2,600,640			11,240,640
2001/4/2	0	14	13	2	9.4	1.0	*			136.99		720,000		2,457,000			3,177,000
2001/4/3	0	8	14	3	8.3	42.5	*			137.07		0		2,583,360			2,583,360
2001/4/4	3	8	15	0	8.9	7.5	*			137.19		0		3,855,960			3,855,960
2001/4/5	9	2	30	0	14.7	15.0	*			137.22		8,640,000		4,937,760			13,577,760
2001/4/6	10	0	0	0	1.9	12.5	*			137.18		8,640,000		4,731,840			13,371,840
2001/4/7	4	0	26	0	11.5	4.8	*			137.17		8,640,000		5,063,040			13,703,040
2001/4/8	0	6	0	0	1.6	0.5	*			137.03		8,640,000		5,063,040			13,703,040
2001/4/9	0	0	0	0	0.0	58.0	*			137.12		720,000		3,403,440			4,123,440
2001/4/10	70	0	17	0	20.6	3.0	*			137.18		0		3,520,800			3,520,800
2001/4/11	4	0	25	0	11.1	0.0	*			137.17		0		3,278,520			3,278,520
2001/4/12	0	0	37	0	15.3	7.0	*			137.17		0		4,924,800			4,924,800
2001/4/13	0	0	31	0	12.8	11.0	*			137.18		0		4,924,800			4,924,800
2001/4/14	0	0	0	0	0.0	3.5	*			137.19		0		4,924,800			4,924,800
2001/4/15	0	0	0	2	0.3	22.5	*			137.19		0		4,924,800			4,924,800
2001/4/16	0	0	0	0	0.0	0.0	*			137.19		0		4,924,800			4,924,800
2001/4/17	0	42	0	5	11.8	0.0	*			137.19		0		4,924,800			4,924,800
2001/4/18	0	0	0	0	0.0	0.0	*			137.17		0		4,924,800			4,924,800
2001/4/19	0	0	0	0	0.0	0.0	*			137.12		0		4,965,120			4,965,120
2001/4/20	0	0	0	0	0.0	0.0	*			137.07		0		4,993,920			4,993,920
2001/4/21	0	0	0	0	0.0	0.0	*			137.04		0		4,993,920			4,993,920
2001/4/22	0	0	0	0	0.0	0.0	*			136.99		0		4,993,920			4,993,920
2001/4/23	0	0	0	0	0.0	0.0	*			136.93		0		4,993,920			4,993,920
2001/4/24	2	0	0	153	19.5	41.0	*			136.92		0		4,993,920			4,993,920
2001/4/25	*	31	26	0	19.0	8.5	*			136.99		0		4,993,920			4,993,920
2001/4/26	*	0	0	0	0.0	0.0	*			136.98		0		4,993,920			4,993,920
2001/4/27	*	0	0	0	0.0	0.0	*			136.95		0		4,993,920			4,993,920
2001/4/28	*	0	0	0	0.0	0.0	*			136.90		0		4,993,920			4,993,920
2001/4/29	*	0	0	0	0.0	0.0	*			136.84		0		4,993,920			4,993,920
2001/4/30	*	0	0	0	0.0	0.0	*			136.77		0		4,993,920			4,993,920
Total/Average	106	111	245	173	173.3	240.8	0.0	#DIV/0!	#DIV/0!	137.07		44,640,000		135,867,240			180,507,240

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2001

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/5/1	*	0	0	0	0.0	0.0	*			136.73		0		2,237,760			2,237,760
2001/5/2	*	19	0	0	5.1	85.0	*			136.80		0		1,987,200			1,987,200
2001/5/3	*	7	0	0	1.9	35.0	*			136.82		0		1,987,200			1,987,200
2001/5/4	*	26	0	25	10.1	0.5	*			136.85		0		1,987,200			1,987,200
2001/5/5	*	0	0	0	0.0	0.0	*			136.87		0		1,987,200			1,987,200
2001/5/6	*	0	0	0	0.0	0.0	*			136.85		0		1,987,200			1,987,200
2001/5/7	*	0	0	0	0.0	0.0	*			136.83		0		1,987,200			1,987,200
2001/5/8	*	0	0	0	0.0	2.5	*			136.81		0		1,987,200			1,987,200
2001/5/9	*	0	0	0	0.0	0.0	*			136.78		0		1,987,200			1,987,200
2001/5/10	*	0	0	0	0.0	0.0	*			136.76		0		1,987,200			1,987,200
2001/5/11	*	0	0	0	0.0	0.0	*			136.74		0		1,987,200			1,987,200
2001/5/12	*	0	0	0	0.0	0.0	*			136.72		0		1,987,200			1,987,200
2001/5/13	*	0	0	0	0.0	0.0	*			136.69		0		2,000,520			2,000,520
2001/5/14	*	0	0	0	0.0	0.0	*			136.69		0		2,000,520			2,000,520
2001/5/15	*	0	0	0	0.0	0.0	*			136.63		0		2,004,480			2,004,480
2001/5/16	*	0	0	0	0.0	0.0	*			136.61		0		2,004,480			2,004,480
2001/5/17	*	0	0	0	0.0	0.0	*			136.59		0		2,013,120			2,013,120
2001/5/18	*	0	20	0	8.3	0.0	*			136.56		0		2,013,120			2,013,120
2001/5/19	*	0	3	6	2.0	35.5	*			136.59		0		2,013,120			2,013,120
2001/5/20	*	0	0	15	1.9	0.0	*			136.59		0		2,013,120			2,013,120
2001/5/21	*	0	0	0	0.0	0.0	*			136.58		0		2,013,120			2,013,120
2001/5/22	*	0	0	0	0.0	0.0	*			136.56		0		2,013,120			2,013,120
2001/5/23	*	0	0	0	0.0	0.0	*			136.53		0		2,013,120			2,013,120
2001/5/24	*	0	0	0	0.0	0.0	*			136.50		0		2,013,120			2,013,120
2001/5/25	*	0	0	0	0.0	0.0	*			136.47		0		2,013,120			2,013,120
2001/5/26	*	0	0	0	0.0	0.0	*			136.45		0		2,013,120			2,013,120
2001/5/27	*	0	0	0	0.0	1.0	*			136.43		0		2,027,520			2,027,520
2001/5/28	*	0	0	0	0.0	2.2	*			136.40		0		2,030,400			2,030,400
2001/5/29	*	0	0	0	0.0	0.0	*			136.38		0		2,030,400			2,030,400
2001/5/30	*	0	0	0	0.0	0.0	*			136.36		0		2,030,400			2,030,400
2001/5/31	*	0	0	0	0.0	2.8	*			136.33		0		2,082,240			2,082,240
Total/Average	0	52	23	46	29.2	164.5	0.0	#DIV/0!	#DIV/0!	136.63		0		62,439,120		0.00	62,439,120

Note : " \* " : No data is available

**Wonogiri Dam Operation Data Record in 2001**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/6/1	0	7	59	36	30.8	0.0	*			136.34		0		2,237,760			2,237,760
2001/6/2	0	0	0	0	0.0	0.0	*			136.33		0		2,237,760			2,237,760
2001/6/3	3	0	0	0	0.6	0.0	*			136.37		0		2,237,760			2,237,760
2001/6/4	0	0	6	15	4.4	8.0	*			136.35		0		2,237,760			2,237,760
2001/6/5	0	0	0	0	0.0	0.0	*			136.32		0		2,237,760			2,237,760
2001/6/6	6	27	0	45	14.0	0.0	*			136.29		0		2,244,240			2,244,240
2001/6/7	0	0	6	0	2.5	1.5	*			136.29		0		2,246,400			2,246,400
2001/6/8	0	0	13	0	5.4	1.0	*			136.27		0		2,246,400			2,246,400
2001/6/9	30	10	0	20	11.0	0.0	*			136.28		0		2,246,400			2,246,400
2001/6/10	17	40	0	33	18.1	0.0	*			136.30		0		2,246,400			2,246,400
2001/6/11	0	6	0	0	1.6	10.5	*			136.30		0		2,246,400			2,246,400
2001/6/12	0	0	6	0	2.5	0.0	*			136.28		0		2,246,400			2,246,400
2001/6/13	0	0	13	0	5.4	0.0	*			136.27		0		2,246,400			2,246,400
2001/6/14	0	17	0	15	6.4	0.0	*			136.27		0		2,246,400			2,246,400
2001/6/15	5	0	0	25	4.1	20.5	*			136.25		0		2,246,400			2,246,400
2001/6/16	0	0	0	0	0.0	0.0	*			136.23		0		2,246,400			2,246,400
2001/6/17	0	0	0	0	0.0	0.0	*			136.21		0		2,246,400			2,246,400
2001/6/18	0	0	0	0	0.0	0.0	*			136.19		0		2,246,400			2,246,400
2001/6/19	0	0	0	0	0.0	2.5	*			136.16		0		2,246,400			2,246,400
2001/6/20	36	0	0	0	7.0	0.0	*			136.14		0		2,260,080			2,260,080
2001/6/21	0	0	0	0	0.0	0.0	*			136.12		0		2,263,680			2,263,680
2001/6/22	0	0	0	0	0.0	0.0	*			136.09		0		2,263,680			2,263,680
2001/6/23	0	0	0	0	0.0	0.0	*			136.05		0		2,263,680			2,263,680
2001/6/24	0	0	0	0	0.0	0.0	*			136.01		0		2,263,680			2,263,680
2001/6/25	0	0	0	0	0.0	0.0	*			135.98		0		2,263,680			2,263,680
2001/6/26	0	0	0	0	0.0	0.0	*			135.96		0		2,272,320			2,272,320
2001/6/27	0	0	0	0	0.0	0.0	*			135.93		0		2,272,320			2,272,320
2001/6/28	0	0	0	0	0.0	0.0	*			135.93		0		2,272,320			2,272,320
2001/6/29	0	0	0	0	0.0	0.0	*			135.90		0		2,295,360			2,295,360
2001/6/30	0	0	0	0	0.0	0.0	*			135.84		0		2,320,920			2,320,920
Total/Average	97	107	103	189	113.7	44.0	0.0	#DIV/0!	#DIV/0!	136.17		0		67,647,960			67,647,960

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2001

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir				Total Outflow from Reservoir			
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/7/1	0	0	0	0	0.0	0.0	*		135.81	0				2,376,000			2,376,000
2001/7/2	0	0	0	0	0.0	0.0	*		135.77	0				2,376,000			2,376,000
2001/7/3	0	0	0	0	0.0	0.0	*		135.72	0				2,376,000			2,376,000
2001/7/4	0	0	0	0	0.0	0.0	*		135.68	0				2,384,640			2,384,640
2001/7/5	0	0	0	0	0.0	0.0	*		135.64	0				2,384,640			2,384,640
2001/7/6	0	0	0	0	0.0	0.0	*		135.60	0				2,391,120			2,391,120
2001/7/7	0	0	0	0	0.0	0.0	*		135.56	0				2,393,280			2,393,280
2001/7/8	0	0	0	0	0.0	0.0	*		135.53	0				2,401,560			2,401,560
2001/7/9	0	0	0	0	0.0	0.0	*		135.49	0				2,401,920			2,401,920
2001/7/10	0	0	0	0	0.0	0.0	*		135.45	0				2,401,920			2,401,920
2001/7/11	0	1	0	0	0.3	0.0	*		135.41	0				2,407,320			2,407,320
2001/7/12	0	0	0	0	0.0	1.0	*		135.37	0				2,412,720			2,412,720
2001/7/13	0	0	0	0	0.0	0.0	*		135.33	0				2,419,200			2,419,200
2001/7/14	0	0	0	0	0.0	0.0	*		135.30	0				2,419,200			2,419,200
2001/7/15	7	0	0	0	1.4	0.5	*		135.26	0				2,419,200			2,419,200
2001/7/16	5	0	0	0	1.0	0.0	*		135.23	0				2,419,200			2,419,200
2001/7/17	0	0	0	0	0.0	0.0	*		135.20	0				2,419,200			2,419,200
2001/7/18	0	0	0	0	0.0	0.0	*		135.17	0				2,434,680			2,434,680
2001/7/19	0	0	0	0	0.0	1.5	*		135.13	0				2,436,480			2,436,480
2001/7/20	0	2	0	0	0.5	16.0	*		135.09	0				2,436,480			2,436,480
2001/7/21	0	0	0	0	0.0	0.0	*		135.06	0				2,436,480			2,436,480
2001/7/22	0	0	0	0	0.0	0.0	*		135.03	0				2,445,120			2,445,120
2001/7/23	0	0	0	0	0.0	0.0	*		134.99	0				2,445,120			2,445,120
2001/7/24	1	0	0	0	0.2	0.0	*		134.96	0				2,445,120			2,445,120
2001/7/25	0	0	0	0	0.0	0.0	*		134.93	0				2,449,800			2,449,800
2001/7/26	0	0	0	0	0.0	0.0	*		134.88	0				2,453,760			2,453,760
2001/7/27	0	0	0	0	0.0	0.0	*		134.84	0				2,453,760			2,453,760
2001/7/28	0	0	0	0	0.0	0.0	*		134.80	0				2,453,760			2,453,760
2001/7/29	0	0	0	0	0.0	0.0	*		134.76	0				2,458,080			2,458,080
2001/7/30	0	0	0	0	0.0	0.0	*		134.72	0				2,471,040			2,471,040
2001/7/31	0	0	0	0	0.0	0.0	*		134.68	0				2,471,040			2,471,040
Total/Average	13	3	0	0	3.3	19.0	0.0	#DIV/0!	135.24	0				75,093,840	0.00		75,093,840

Note : \* \* \* \* : No data is available

Wongogri Dam Operation Data Record in 2001

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wongogri Dam (mm)	Pan Evaporation at Wongogri (mm/day)	Reservoir WL			Outflow from Reservoir				Total Outflow from Reservoir			
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )	13	14	15	16	O=(m <sup>3</sup> /s)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/8/1	0	0	0	0	0.0	0.0	*			134.64		0		2,471,040			2,471,040
2001/8/2	0	0	0	0	0.0	0.0	*			134.59		0		2,481,840			2,481,840
2001/8/3	0	0	0	0	0.0	0.0	*			134.54		0		2,488,320			2,488,320
2001/8/4	0	0	0	0	0.0	0.0	*			134.49		0		2,488,320			2,488,320
2001/8/5	0	0	0	0	0.0	0.0	*			134.45		0		2,496,960			2,496,960
2001/8/6	0	0	0	0	0.0	0.0	*			134.40		0		2,496,960			2,496,960
2001/8/7	0	0	0	0	0.0	0.0	*			134.35		0		2,512,080			2,512,080
2001/8/8	0	0	0	0	0.0	0.0	*			134.30		0		2,514,240			2,514,240
2001/8/9	0	0	0	0	0.0	0.0	*			134.26		0		2,514,240			2,514,240
2001/8/10	0	0	0	0	0.0	0.0	*			134.21		0		2,520,000			2,520,000
2001/8/11	0	0	0	0	0.0	0.0	*			134.16		0		2,522,880			2,522,880
2001/8/12	0	0	0	0	0.0	0.0	*			134.12		0		2,522,880			2,522,880
2001/8/13	0	0	0	0	0.0	0.0	*			134.08		0		2,531,520			2,531,520
2001/8/14	0	0	0	0	0.0	0.0	*			134.02		0		2,531,520			2,531,520
2001/8/15	0	0	0	0	0.0	0.0	*			133.98		0		2,531,520			2,531,520
2001/8/16	0	0	0	0	0.0	0.0	*			133.92		0		2,545,920			2,545,920
2001/8/17	0	0	0	0	0.0	0.0	*			133.87		0		2,561,040			2,561,040
2001/8/18	0	0	0	0	0.0	0.0	*			133.81		0		2,566,080			2,566,080
2001/8/19	0	0	0	0	0.0	0.0	*			133.76		0		2,576,880			2,576,880
2001/8/20	0	0	0	0	0.0	0.0	*			133.71		0		2,583,360			2,583,360
2001/8/21	0	0	0	0	0.0	0.0	*			133.66		0		2,583,360			2,583,360
2001/8/22	0	0	0	0	0.0	0.0	*			133.62		0		2,589,840			2,589,840
2001/8/23	0	0	0	0	0.0	0.0	*			133.56		0		2,592,000			2,592,000
2001/8/24	0	0	0	0	0.0	0.0	*			133.51		0		2,599,200			2,599,200
2001/8/25	0	0	0	0	0.0	0.0	*			133.45		0		2,607,840			2,607,840
2001/8/26	0	0	0	0	0.0	0.0	*			133.40		0		2,625,480			2,625,480
2001/8/27	0	0	0	0	0.0	0.0	*			133.34		0		2,635,200			2,635,200
2001/8/28	0	0	0	0	0.0	0.0	*			133.29		0		2,635,200			2,635,200
2001/8/29	0	0	0	0	0.0	0.0	*			133.23		0		2,635,200			2,635,200
2001/8/30	0	0	0	0	0.0	0.0	*			133.17		0		2,635,200			2,635,200
2001/8/31	0	0	0	0	0.0	0.0	*			133.11		0		2,635,200			2,635,200
Total/Average	0	0	0	0	0.0	0.0	0.0	#DIV/0!	#DIV/0!	133.90		0		79,093,080	0.00		79,093,080

Note : \* \* \* \* : No data is available



Wonogiri Dam Operation Data Record in 2001

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/9/1	0	17	0	0	4.5	0.0	0.0	*		133.05		0		2,635,200			2,635,200
2001/9/2	0	0	0	0	0.0	0.0	0.0	*		133.00		0		2,642,400			2,642,400
2001/9/3	0	0	0	0	0.0	0.0	0.0	*		132.94		0		2,656,080			2,656,080
2001/9/4	0	0	0	0	0.0	0.0	0.0	*		132.88		0		2,661,120			2,661,120
2001/9/5	0	20	0	0	5.3	0.0	0.0	*		132.83		0		2,665,440			2,665,440
2001/9/6	0	0	0	0	0.0	0.0	0.0	*		132.79		0		2,669,760			2,669,760
2001/9/7	0	0	0	0	0.0	0.0	0.0	*		132.74		0		2,678,400			2,678,400
2001/9/8	0	0	0	0	0.0	0.0	0.0	*		132.68		0		2,678,400			2,678,400
2001/9/9	0	0	0	0	0.0	0.0	0.0	*		132.63		0		2,678,400			2,678,400
2001/9/10	0	0	0	0	0.0	0.0	0.0	*		132.58		0		2,694,240			2,694,240
2001/9/11	0	0	0	0	0.0	0.0	0.0	*		132.51		0		2,583,360			2,583,360
2001/9/12	0	0	0	0	0.0	0.0	0.0	*		132.45		0		2,704,320			2,704,320
2001/9/13	0	0	0	0	0.0	0.0	0.0	*		132.39		0		2,721,600			2,721,600
2001/9/14	0	0	0	0	0.0	0.0	0.0	*		132.32		0		2,743,920			2,743,920
2001/9/15	0	0	0	0	0.0	0.0	0.0	*		132.26		0		2,747,520			2,747,520
2001/9/16	0	0	0	0	0.0	0.0	0.0	*		132.19		0		2,747,520			2,747,520
2001/9/17	0	0	0	0	0.0	0.0	0.0	*		132.13		0		2,747,520			2,747,520
2001/9/18	0	0	0	0	0.0	0.0	0.0	*		132.06		0		2,764,080			2,764,080
2001/9/19	0	0	0	0	0.0	0.0	0.0	*		131.99		0		2,764,800			2,764,800
2001/9/20	0	0	0	0	0.0	0.0	0.0	*		131.92		0		2,786,400			2,786,400
2001/9/21	0	0	0	0	0.0	0.0	0.0	*		131.84		0		2,810,160			2,810,160
2001/9/22	0	0	0	0	0.0	0.0	0.0	*		131.77		0		2,816,640			2,816,640
2001/9/23	0	0	0	0	0.0	0.0	0.0	*		131.70		0		2,851,200			2,851,200
2001/9/24	0	0	0	0	0.0	0.0	0.0	*		131.62		0		2,851,200			2,851,200
2001/9/25	0	0	0	0	0.0	0.0	0.0	*		131.55		0		2,851,200			2,851,200
2001/9/26	0	0	0	0	0.0	0.0	0.0	*		131.47		0		2,874,960			2,874,960
2001/9/27	0	0	0	0	0.0	0.0	0.0	*		131.39		0		2,893,680			2,893,680
2001/9/28	0	0	0	0	0.0	0.0	0.0	*		131.31		0		2,894,400			2,894,400
2001/9/29	0	0	0	0	0.0	0.0	0.0	*		131.22		0		2,916,000			2,916,000
2001/9/30	0	0	0	0	0.0	0.0	0.0	*		131.13		0		2,928,960			2,928,960
Total/Average	0	37	0	0	9.9	0.0	0.0	0.0	#DIV/0!	132.18		0		82,658,880			82,658,880

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2001

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/10/1	0	19	0	0	5.1	0.0	*			131.05	0	0	0	2,432,160			2,432,160
2001/10/2	0	0	0	0	0.0	0.0	*			130.98	0	0	0	2,332,800			2,332,800
2001/10/3	0	6	0	0	1.6	0.0	*			130.91	0	0	0	2,332,800			2,332,800
2001/10/4	0	2	0	0	0.5	8.0	*			130.86	0	0	0	1,929,600			1,929,600
2001/10/5	0	0	0	0	0.0	1.0	*			130.82	0	0	0	1,848,960			1,848,960
2001/10/6	0	0	0	0	0.0	0.0	*			130.78	0	0	0	1,848,960			1,848,960
2001/10/7	0	0	0	0	0.0	25.0	*			130.74	0	0	0	1,848,960			1,848,960
2001/10/8	0	0	0	0	0.0	7.5	*			130.70	0	0	0	1,848,960			1,848,960
2001/10/9	0	2	0	0	0.5	2.5	*			130.66	0	0	0	1,848,960			1,848,960
2001/10/10	0	56	0	0	15.0	0.0	*			130.62	0	0	0	1,848,960			1,848,960
2001/10/11	0	0	0	0	0.0	0.0	*			130.58	0	0	0	1,848,960			1,848,960
2001/10/12	0	0	0	0	0.0	0.0	*			130.55	0	0	0	1,232,640			1,232,640
2001/10/13	0	0	0	0	0.0	0.0	*			130.56	0	0	0	466,560			466,560
2001/10/14	0	0	0	0	0.0	30.5	*			130.54	0	0	0	468,720			468,720
2001/10/15	0	15	0	0	4.0	7.0	*			130.55	0	0	0	468,720			468,720
2001/10/16	0	5	0	0	1.3	16.0	*			130.62	0	0	0	477,360			477,360
2001/10/17	0	31	0	0	8.3	2.5	*			130.66	0	0	0	475,200			475,200
2001/10/18	0	0	0	0	0.0	12.5	*			130.69	0	0	0	468,720			468,720
2001/10/19	0	0	0	0	0.0	5.0	*			130.70	0	0	0	468,720			468,720
2001/10/20	0	0	0	0	0.0	2.5	*			130.71	0	0	0	468,720			468,720
2001/10/21	0	3	0	0	0.8	17.5	*			130.72	0	0	0	468,720			468,720
2001/10/22	0	15	0	0	4.0	0.5	*			130.77	0	0	0	955,080			955,080
2001/10/23	0	25	0	0	6.7	0.4	*			130.77	0	0	0	1,051,920			1,051,920
2001/10/24	0	4	0	0	1.1	1.5	*			130.83	0	0	0	880,200			880,200
2001/10/25	0	5	0	0	1.3	1.0	*			130.82	0	0	0	880,200			880,200
2001/10/26	0	0	0	0	0.0	0.0	*			130.86	0	0	0	880,200			880,200
2001/10/27	0	0	0	0	0.0	5.5	*			130.87	0	0	0	1,289,160			1,289,160
2001/10/28	0	0	0	0	0.0	20.0	*			130.89	0	0	0	1,397,520			1,397,520
2001/10/29	0	0	0	0	0.0	0.0	*			130.87	0	0	0	2,367,360			2,367,360
2001/10/30	0	0	0	0	0.0	12.0	*			130.82	0	0	0	2,367,360			2,367,360
2001/10/31	0	0	0	0	0.0	0.0	*			130.79	0	0	0	2,367,360			2,367,360
Total/Average	0	188	0	0	50.2	178.4	0.0	#DIV/0!	#DIV/0!	130.75	0	0	0	41,870,520	0.00		41,870,520

Note : \* \* \* \* : No data is available

Wonggiri Dam Operation Data Record in 2001

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonggiri Dam (mm)	Pan Evaporation at Wonggiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/1/1	0	0	0	*	0.0	6.0	*			130.74		0		2,367,360			2,367,360
2001/1/2	0	26	0	*	6.9	0.0	*			130.70		0		2,383,200			2,383,200
2001/1/3	0	0	0	*	0.0	0.0	*			130.66		0		2,384,640			2,384,640
2001/1/4	0	4	0	*	1.1	20.0	*			130.62		0		2,401,920			2,401,920
2001/1/5	0	0	0	*	0.0	11.0	*			130.61		0		1,000,800			1,000,800
2001/1/6	0	0	0	*	0.0	1.5	*			130.65		0		443,520			443,520
2001/1/7	0	0	0	*	0.0	0.0	*			130.67		0		826,560			826,560
2001/1/8	0	0	0	*	0.0	0.0	*			130.64		0		1,419,840			1,419,840
2001/1/9	0	0	0	*	0.0	0.0	*			130.59		0		1,425,600			1,425,600
2001/1/10	0	0	0	*	0.0	0.0	*			130.56		0		1,425,600			1,425,600
2001/1/11	0	0	0	*	0.0	0.0	*			130.51		0		1,425,600			1,425,600
2001/1/12	0	0	0	*	0.0	0.0	*			130.46		0		1,425,600			1,425,600
2001/1/13	0	0	0	*	11.2	0.0	*			130.41		0		1,440,000			1,440,000
2001/1/14	0	0	0	*	0.0	0.0	*			130.41		0		1,450,080			1,450,080
2001/1/15	2	37	24	*	20.2	18.5	*			130.57		0		846,000			846,000
2001/1/16	16	24	0	*	9.5	13.5	*			130.73		0		419,760			419,760
2001/1/17	49	6	36	*	26.0	53.0	*			130.94		0		415,800			415,800
2001/1/18	50	26	21	*	25.3	12.0	*			131.14		0		118,800			118,800
2001/1/19	13	15	37	*	21.8	16.5	*			131.35		0		297,000			297,000
2001/1/20	18	16	0	*	7.8	13.0	*			131.55		0		594,000			594,000
2001/1/21	4	5	0	*	2.1	1.5	*			131.59		0		1,422,720			1,422,720
2001/1/22	0	0	0	*	0.0	2.5	*			131.55		0		1,811,520			1,811,520
2001/1/23	0	0	0	*	0.0	0.0	*			131.49		0		1,811,520			1,811,520
2001/1/24	0	0	0	*	0.0	0.0	*			131.44		0		1,857,600			1,857,600
2001/1/25	0	0	0	*	0.0	0.0	*			131.36		0		1,723,680			1,723,680
2001/1/26	0	0	0	*	0.0	0.0	*			131.29		0		1,735,560			1,735,560
2001/1/27	7	0	10	*	5.5	0.0	*			131.24		0		1,857,600			1,857,600
2001/1/28	2	0	0	*	0.4	0.0	*			131.18		0		1,857,600			1,857,600
2001/1/29	0	0	0	*	0.0	0.0	*			131.12		0		1,857,600			1,857,600
2001/1/30	0	0	0	*	11.2	9.0	*			131.07		0		1,857,600			1,857,600
Total/Average	161	159	182	0	149.0	178.0	0.0	#DIV/0!	#DIV/0!	130.93	0	0	0	42,304,680			42,304,680

Note : "\*" : No data is available

**Wonogiri Dam Operation Data Record in 2001**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman (mm)	Jatisro (mm)	Batu-warno (mm)				Tirto-moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2001/12/1	*	24	*	*	6.4	8.0	*	*	131.27	0	0	0	0	586,800	0	0	586,800
2001/12/2	*	16	*	*	4.3	30.0	*	*	131.58	0	0	0	0	309,600	0	0	309,600
2001/12/3	*	3	*	*	0.8	0.0	*	*	131.57	0	0	0	0	1,857,600	0	0	1,857,600
2001/12/4	*	29	*	*	7.7	0.0	*	*	131.79	0	0	0	0	600,480	0	0	600,480
2001/12/5	*	16	*	*	4.3	8.0	*	*	131.94	0	0	0	0	1,436,400	0	0	1,436,400
2001/12/6	*	5	*	*	1.3	0.0	*	*	131.99	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/7	*	6	*	*	1.6	7.0	*	*	131.98	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/8	*	3	*	*	0.8	0.0	*	*	131.97	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/9	*	0	*	*	0.0	0.0	*	*	131.93	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/10	*	0	*	*	0.0	0.0	*	*	131.90	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/11	*	0	*	*	0.0	0.0	*	*	131.92	0	0	0	0	1,512,000	0	0	1,512,000
2001/12/12	*	0	*	*	0.0	0.0	*	*	131.88	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/13	*	0	*	*	0.0	0.0	*	*	131.83	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/14	*	0	*	*	0.0	0.0	*	*	131.78	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/15	*	5	*	*	1.3	0.0	*	*	131.73	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/16	*	0	*	*	0.0	0.0	*	*	131.67	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/17	*	0	*	*	0.0	0.0	*	*	131.66	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/18	*	10	*	*	2.7	7.0	*	*	131.61	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/19	*	0	*	*	0.0	0.0	*	*	131.56	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/20	*	0	*	*	0.0	0.0	*	*	131.53	0	0	0	0	1,814,400	0	0	1,814,400
2001/12/21	*	0	*	*	0.0	0.0	*	*	131.53	0	0	0	0	1,512,000	0	0	1,512,000
2001/12/22	*	0	*	*	0.0	0.0	*	*	131.49	0	0	0	0	2,351,520	0	0	2,351,520
2001/12/23	*	0	*	*	0.0	0.0	*	*	131.45	0	0	0	0	2,419,200	0	0	2,419,200
2001/12/24	*	0	*	*	0.0	0.0	*	*	131.41	0	0	0	0	2,419,200	0	0	2,419,200
2001/12/25	*	0	*	*	0.0	0.0	*	*	131.37	0	0	0	0	2,419,200	0	0	2,419,200
2001/12/26	*	6	*	*	1.6	0.0	*	*	131.31	0	0	0	0	1,890,000	0	0	1,890,000
2001/12/27	*	0	*	*	0.0	0.0	*	*	131.27	0	0	0	0	1,857,600	0	0	1,857,600
2001/12/28	*	0	*	*	0.0	0.0	*	*	131.23	0	0	0	0	1,866,240	0	0	1,866,240
2001/12/29	*	17	*	*	4.5	0.0	*	*	131.15	0	0	0	0	1,866,240	0	0	1,866,240
2001/12/30	*	0	*	*	0.0	0.0	*	*	131.10	0	0	0	0	1,866,240	0	0	1,866,240
2001/12/31	*	6	*	*	1.6	0.0	*	*	131.11	0	0	0	0	1,866,240	0	0	1,866,240
Total/Average	0	140	0	0	37.4	68.0	0.0	0.0	131.61	0	0	0	0	52,171,920	0.00	0	52,171,920

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/1/1	*	*	*	*	*	0.5	*	*	131.17	0	0	0	0	1,166,400	0	1,166,400	1,166,400
2002/1/2	*	*	*	*	*	18.5	*	*	131.18	0	0	0	0	1,710,720	0	1,710,720	1,710,720
2002/1/3	*	*	*	*	*	12.5	*	*	131.16	0	0	0	0	1,866,240	0	1,866,240	1,866,240
2002/1/4	*	*	*	*	*	72.0	*	*	131.27	0	0	0	0	1,210,320	0	1,210,320	1,210,320
2002/1/5	*	*	*	*	*	1.5	*	*	131.28	0	0	0	0	583,200	0	583,200	583,200
2002/1/6	*	*	*	*	*	0.0	*	*	131.35	0	0	0	0	291,600	0	291,600	291,600
2002/1/7	*	*	*	*	*	0.0	*	*	131.36	0	0	0	0	918,000	0	918,000	918,000
2002/1/8	*	*	*	*	*	0.0	*	*	131.33	0	0	0	0	1,468,800	0	1,468,800	1,468,800
2002/1/9	*	*	*	*	*	3.0	*	*	131.28	0	0	0	0	1,468,800	0	1,468,800	1,468,800
2002/1/10	*	*	*	*	*	0.0	*	*	131.24	0	0	0	0	489,600	0	489,600	489,600
2002/1/11	*	*	*	*	*	0.0	*	*	131.20	0	0	0	0	1,468,800	0	1,468,800	1,468,800
2002/1/12	*	*	*	*	*	0.0	*	*	131.15	0	0	0	0	1,468,800	0	1,468,800	1,468,800
2002/1/13	*	*	*	*	*	29.5	*	*	131.17	0	0	0	0	1,468,800	0	1,468,800	1,468,800
2002/1/14	*	*	*	*	*	24.5	*	*	131.19	0	0	0	0	734,400	0	734,400	734,400
2002/1/15	*	*	*	*	*	30.0	*	*	131.32	0	0	0	0	306,000	0	306,000	306,000
2002/1/16	*	*	*	*	*	0.5	*	*	131.36	0	0	0	0	306,000	0	306,000	306,000
2002/1/17	*	*	*	*	*	14.5	*	*	131.47	0	0	0	0	0	0	0	0
2002/1/18	*	*	*	*	*	46.5	*	*	131.69	0	0	0	0	0	0	0	0
2002/1/19	*	*	*	*	*	8.5	*	*	131.89	0	0	0	0	0	0	0	0
2002/1/20	*	*	*	*	*	2.5	*	*	132.02	0	0	0	0	0	0	0	0
2002/1/21	*	*	*	*	*	63.5	*	*	132.18	0	0	0	0	0	0	0	0
2002/1/22	*	*	*	*	*	17.0	*	*	132.44	0	0	0	0	0	0	0	0
2002/1/23	*	*	*	*	*	31.0	*	*	132.65	0	0	0	0	0	0	0	0
2002/1/24	*	*	*	*	*	0.0	*	*	132.85	0	0	0	0	0	0	0	0
2002/1/25	*	*	*	*	*	9.5	*	*	133.05	0	0	0	0	0	0	0	0
2002/1/26	*	*	*	*	*	27.0	*	*	133.63	0	0	0	0	0	0	0	0
2002/1/27	*	*	*	*	*	0.0	*	*	133.93	0	0	0	0	0	0	0	0
2002/1/28	*	*	*	*	*	0.0	*	*	134.02	0	0	0	0	0	0	0	0
2002/1/29	*	*	*	*	*	151.0	*	*	134.68	0	0	0	0	0	0	0	0
2002/1/30	*	*	*	*	*	1.5	*	*	134.93	0	0	0	0	837,000	0	837,000	837,000
2002/1/31	*	*	*	*	*	1.5	*	*	134.96	0	0	0	0	1,382,760	0	1,382,760	1,382,760
Total/Average	0	0	0	0	0.0	566.5	0.0	#DIV/0!	132.14	0	0	0	0	19,146,240	0.00	19,146,240	19,146,240

Note : \* \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -no (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/2/1	0	0	*	*	0.0	0.0	*	*	135.02	0	0	0	0	2,077,200	16	17=12+14	2,077,200
2002/2/2	7	0	*	*	1.4	0.0	*	*	135.04	0	0	0	0	2,503,440	16	17=12+14	2,503,440
2002/2/3	4	0	*	*	0.8	6.8	*	*	135.27	0	0	0	0	2,681,280	16	17=12+14	2,681,280
2002/2/4	59	62	*	*	28.0	6.5	*	*	135.62	0	0	0	0	2,689,560	16	17=12+14	2,689,560
2002/2/5	1	4	*	*	1.3	23.0	*	*	135.78	0	0	0	0	4,774,320	16	17=12+14	4,774,320
2002/2/6	71	12	*	*	17.0	14.5	*	*	135.95	4,140,000	0	0	0	5,202,720	16	17=12+14	9,342,720
2002/2/7	26	30	*	*	13.1	8.5	*	*	136.07	4,320,000	0	0	0	5,169,600	16	17=12+14	9,489,600
2002/2/8	32	0	*	*	6.2	31.0	*	*	136.13	7,920,000	0	0	0	4,951,440	16	17=12+14	12,871,440
2002/2/9	25	6	*	*	6.5	59.5	*	*	136.20	10,620,000	0	0	0	5,166,720	16	17=12+14	15,786,720
2002/2/10	19	0	*	*	3.7	76.0	*	*	136.37	16,920,000	0	0	0	5,405,040	16	17=12+14	22,325,040
2002/2/11	20	16	*	*	8.2	0.5	*	*	136.18	17,280,000	0	0	0	5,460,480	16	17=12+14	22,740,480
2002/2/12	1	0	*	*	0.2	0.5	*	*	135.93	17,280,000	0	0	0	5,604,480	16	17=12+14	22,884,480
2002/2/13	45	0	*	*	8.7	34.5	*	*	135.87	17,280,000	0	0	0	4,286,160	16	17=12+14	21,566,160
2002/2/14	43	40	*	*	19.0	50.0	*	*	136.15	13,500,000	0	0	0	5,647,680	16	17=12+14	19,147,680
2002/2/15	13	17	*	*	7.1	0.0	*	*	136.11	14,760,000	0	0	0	5,398,560	16	17=12+14	20,158,560
2002/2/16	1	0	*	*	0.2	3.5	*	*	135.89	17,280,000	0	0	0	5,639,400	16	17=12+14	22,919,400
2002/2/17	16	15	*	*	7.1	41.5	*	*	135.90	17,280,000	0	0	0	5,641,920	16	17=12+14	22,921,920
2002/2/18	65	9	*	*	15.0	4.5	*	*	135.76	17,280,000	0	0	0	5,641,920	16	17=12+14	22,921,920
2002/2/19	37	0	*	*	7.2	5.0	*	*	135.67	17,280,000	0	0	0	5,641,920	16	17=12+14	22,921,920
2002/2/20	7	0	*	*	1.4	5.5	*	*	135.68	17,280,000	0	0	0	5,171,760	16	17=12+14	22,451,760
2002/2/21	42	5	*	*	9.5	4.0	*	*	135.62	17,280,000	0	0	0	5,641,920	16	17=12+14	22,921,920
2002/2/22	10	0	*	*	1.9	42.5	*	*	135.63	17,280,000	0	0	0	5,641,920	16	17=12+14	22,921,920
2002/2/23	20	8	*	*	6.0	9.0	*	*	135.56	17,280,000	0	0	0	5,641,920	16	17=12+14	22,921,920
2002/2/24	12	5	*	*	3.7	0.0	*	*	135.35	9,720,000	0	0	0	5,536,080	16	17=12+14	15,256,080
2002/2/25	20	0	*	*	3.9	0.0	*	*	135.36	0	0	0	0	5,103,000	16	17=12+14	5,103,000
2002/2/26	0	0	*	*	0.0	0.0	*	*	135.31	0	0	0	0	5,245,920	16	17=12+14	5,245,920
2002/2/27	0	0	*	*	0.0	16.0	*	*	135.29	0	0	0	0	5,253,120	16	17=12+14	5,253,120
2002/2/28	0	12	*	*	3.2	1.0	*	*	135.22	0	0	0	0	5,253,120	16	17=12+14	5,253,120
Total/Average	596	241	0	0	180.0	443.8	0.0	#DIV/0!	135.71	271,980,000	0	0	0	138,072,600	0.00	0.00	410,052,600

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/3/1	*	*	*	*	*	0.0	*	*	135.17	0	0	0	0	5,253,120	16	17=12+14	18=13+15
2002/3/2	*	*	*	*	*	0.0	*	*	135.13	0	0	0	0	4,302,720			5,253,120
2002/3/3	*	*	*	*	*	0.0	*	*	135.07	0	0	0	0	4,112,640			4,302,720
2002/3/4	*	*	*	*	*	0.0	*	*	135.01	0	0	0	0	4,129,920			4,112,640
2002/3/5	*	*	*	*	*	0.0	*	*	134.94	0	0	0	0	2,534,040			4,129,920
2002/3/6	*	*	*	*	*	0.0	*	*	134.91	0	0	0	0	2,106,000			2,534,040
2002/3/7	*	*	*	*	*	8.0	*	*	134.96	0	0	0	0	2,073,600			2,106,000
2002/3/8	*	*	*	*	*	5.5	*	*	135.00	0	0	0	0	2,073,600			2,073,600
2002/3/9	*	*	*	*	*	0.5	*	*	135.00	0	0	0	0	2,073,600			2,073,600
2002/3/10	*	*	*	*	*	5.5	*	*	135.01	0	0	0	0	2,073,600			2,073,600
2002/3/11	*	*	*	*	*	36.0	*	*	135.37	0	0	0	0	2,073,600			2,073,600
2002/3/12	*	*	*	*	*	2.5	*	*	135.67	0	0	0	0	2,073,600			2,073,600
2002/3/13	*	*	*	*	*	0.0	*	*	135.62	0	0	0	0	2,073,600			2,073,600
2002/3/14	*	*	*	*	*	1.0	*	*	135.60	0	0	0	0	2,073,600			2,073,600
2002/3/15	*	*	*	*	*	16.5	*	*	135.64	0	0	0	0	2,073,600			2,073,600
2002/3/16	*	*	*	*	*	21.5	*	*	135.70	0	0	0	0	2,214,000			2,073,600
2002/3/17	*	*	*	*	*	0.5	*	*	135.76	0	0	0	0	2,332,800			2,214,000
2002/3/18	*	*	*	*	*	3.5	*	*	135.81	0	0	0	0	2,332,800			2,332,800
2002/3/19	*	*	*	*	*	1.5	*	*	135.88	0	0	0	0	2,332,800			2,332,800
2002/3/20	*	*	*	*	*	5.0	*	*	136.00	0	0	0	0	3,108,960			3,108,960
2002/3/21	*	*	*	*	*	0.0	*	*	136.02	0	0	0	0	3,924,000			3,924,000
2002/3/22	*	*	*	*	*	24.5	*	*	136.01	0	0	0	0	3,661,200			3,924,000
2002/3/23	*	*	*	*	*	0.0	*	*	136.04	0	0	0	0	3,110,400			3,661,200
2002/3/24	*	*	*	*	*	0.0	*	*	136.20	0	0	0	0	3,597,120			3,110,400
2002/3/25	*	*	*	*	*	0.0	*	*	136.25	0	0	0	0	4,008,960			3,597,120
2002/3/26	*	*	*	*	*	1.0	*	*	136.30	0	0	0	0	3,948,480			4,008,960
2002/3/27	*	*	*	*	*	37.5	*	*	136.39	0	0	0	0	4,006,800			3,948,480
2002/3/28	*	*	*	*	*	0.0	*	*	136.53	0	0	0	0	4,988,160			4,006,800
2002/3/29	*	*	*	*	*	2.5	*	*	136.61	0	0	0	0	4,354,560			4,988,160
2002/3/30	*	*	*	*	*	0.0	*	*	136.61	0	0	0	0	4,354,560			4,354,560
2002/3/31	*	*	*	*	*	11.5	*	*	136.65	0	0	0	0	4,354,560			4,354,560
Total/Average	0	0	0	0	0.0	184.5	0.0	#DIV/0!	135.70	0	0	0	0	97,731,000	0.00	17=12+14	18=13+15

Note : \* \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -loio (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/4/1	4	6	*	*	2.4	1.5	*	*	136.76	0				4,531,680			4,531,680
2002/4/2	4	2	*	*	1.3	16.5	*	*	136.76	0				3,155,040			3,155,040
2002/4/3	40	9	*	*	10.2	0.0	*	*	136.82	0				5,261,760			5,261,760
2002/4/4	12	0	*	*	2.3	3.5	*	*	136.93	0				5,270,400			5,270,400
2002/4/5	0	64	*	*	17.1	2.5	*	*	137.01	3,600,000				5,270,400			8,870,400
2002/4/6	0	1	*	*	0.3	22.0	*	*	137.02	4,320,000				5,270,400			9,590,400
2002/4/7	9	0	*	*	1.7	0.0	*	*	137.00	4,320,000				5,270,400			9,590,400
2002/4/8	0	0	*	*	0.0	0.0	*	*	136.94	540,000				5,270,400			5,810,400
2002/4/9	4	0	*	*	0.8	39.5	*	*	136.94	0				4,644,720			4,644,720
2002/4/10	34	0	*	*	6.6	23.5	*	*	136.99	0				4,951,440			4,951,440
2002/4/11	3	0	*	*	0.6	0.0	*	*	136.99	0				5,270,400			5,270,400
2002/4/12	0	0	*	*	0.0	5.5	*	*	136.97	0				5,270,400			5,270,400
2002/4/13	1	0	*	*	0.2	0.5	*	*	136.96	0				4,392,000			4,392,000
2002/4/14	0	3	*	*	0.8	0.0	*	*	136.92	0				4,434,480			4,434,480
2002/4/15	0	5	*	*	1.3	0.0	*	*	136.89	0				3,818,880			3,818,880
2002/4/16	0	12	*	*	3.2	12.0	*	*	136.93	0				3,732,480			3,732,480
2002/4/17	31	25	*	*	12.7	6.0	*	*	137.03	0				4,845,600			4,845,600
2002/4/18	30	44	*	*	17.6	0.5	*	*	137.11	0				5,011,200			5,011,200
2002/4/19	0	29	*	*	7.7	17.5	*	*	137.17	0				5,011,200			5,011,200
2002/4/20	7	6	*	*	3.0	1.0	*	*	137.22	0				5,011,200			5,011,200
2002/4/21	6	0	*	*	1.2	47.5	*	*	137.25	0				5,011,200			5,011,200
2002/4/22	4	5	*	*	2.1	0.0	*	*	137.32	0				5,011,200			5,011,200
2002/4/23	0	0	*	*	0.0	0.0	*	*	137.32	0				5,011,200			5,011,200
2002/4/24	14	0	*	*	2.7	0.0	*	*	137.31	0				5,011,200			5,011,200
2002/4/25	0	7	*	*	1.9	0.0	*	*	137.29	0				5,011,200			5,011,200
2002/4/26	0	0	*	*	0.0	0.0	*	*	137.24	0				4,746,240			4,746,240
2002/4/27	0	0	*	*	0.0	0.0	*	*	137.19	0				4,734,720			4,734,720
2002/4/28	0	0	*	*	0.0	0.0	*	*	137.15	0				4,739,040			4,739,040
2002/4/29	0	0	*	*	0.0	0.0	*	*	137.11	0				4,769,280			4,769,280
2002/4/30	0	0	*	*	0.0	0.0	*	*	137.06	0				4,769,280			4,769,280
Total/Average	203	218	0	0	97.6	199.5	0.0	#DIV/0!	#DIV/0!	137.05	12,780,000			144,509,040			157,289,040

Note : " \* " : No data is available



Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman (mm)	Jatisro (mm)	Batu-warno (mm)				Tirto-moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/5/1	*	0	*	*	0.0	0.0	*	*	137.02	0	0	0	0	2,488,320	0	0	2,488,320
2002/5/2	*	0	*	*	0.0	1.5	*	*	136.99	0	0	0	0	2,280,960	0	0	2,280,960
2002/5/3	*	0	*	*	0.0	0.0	*	*	136.96	0	0	0	0	2,280,960	0	0	2,280,960
2002/5/4	*	0	*	*	0.0	0.0	*	*	136.93	0	0	0	0	2,280,960	0	0	2,280,960
2002/5/5	*	0	*	*	0.0	0.0	*	*	136.90	0	0	0	0	2,280,960	0	0	2,280,960
2002/5/6	*	7	*	*	1.9	0.0	*	*	136.88	0	0	0	0	2,289,240	0	0	2,289,240
2002/5/7	*	0	*	*	0.0	0.0	*	*	136.87	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/8	*	0	*	*	0.0	0.0	*	*	136.85	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/9	*	0	*	*	0.0	0.0	*	*	136.82	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/10	*	0	*	*	0.0	0.0	*	*	136.81	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/11	*	4	*	*	1.1	0.0	*	*	136.83	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/12	*	0	*	*	0.0	1.0	*	*	136.84	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/13	*	32	*	*	8.5	0.0	*	*	136.86	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/14	*	0	*	*	0.0	0.0	*	*	136.83	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/15	*	0	*	*	0.0	0.0	*	*	136.81	0	0	0	0	2,289,600	0	0	2,289,600
2002/5/16	*	0	*	*	0.0	0.0	*	*	136.78	0	0	0	0	2,291,400	0	0	2,291,400
2002/5/17	*	0	*	*	0.0	0.0	*	*	136.76	0	0	0	0	2,298,240	0	0	2,298,240
2002/5/18	*	0	*	*	0.0	0.0	*	*	136.74	0	0	0	0	2,298,240	0	0	2,298,240
2002/5/19	*	0	*	*	0.0	0.0	*	*	136.72	0	0	0	0	2,298,240	0	0	2,298,240
2002/5/20	*	0	*	*	0.0	0.0	*	*	136.69	0	0	0	0	2,302,560	0	0	2,302,560
2002/5/21	*	0	*	*	0.0	0.0	*	*	136.65	0	0	0	0	2,306,880	0	0	2,306,880
2002/5/22	*	0	*	*	0.0	0.0	*	*	136.61	0	0	0	0	2,306,880	0	0	2,306,880
2002/5/23	*	0	*	*	0.0	0.0	*	*	136.58	0	0	0	0	2,308,680	0	0	2,308,680
2002/5/24	*	0	*	*	0.0	0.0	*	*	136.55	0	0	0	0	2,315,520	0	0	2,315,520
2002/5/25	*	0	*	*	0.0	0.0	*	*	136.52	0	0	0	0	2,317,320	0	0	2,317,320
2002/5/26	*	0	*	*	0.0	0.0	*	*	136.49	0	0	0	0	2,324,160	0	0	2,324,160
2002/5/27	*	0	*	*	0.0	0.0	*	*	136.46	0	0	0	0	2,324,160	0	0	2,324,160
2002/5/28	*	0	*	*	0.0	0.0	*	*	136.42	0	0	0	0	2,324,160	0	0	2,324,160
2002/5/29	*	0	*	*	0.0	0.0	*	*	136.39	0	0	0	0	2,324,160	0	0	2,324,160
2002/5/30	*	0	*	*	0.0	0.0	*	*	136.36	0	0	0	0	2,325,600	0	0	2,325,600
2002/5/31	*	0	*	*	0.0	0.0	*	*	136.32	0	0	0	0	2,332,800	0	0	2,332,800
Total/Average	0	43	0	0	11.5	10.0	0.0	0.0	#DIV/0!	136.72	0	0	0	71,498,160	0.00	0	71,498,160

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/6/1	0	0	*	*	0.0	0.0	*	*	136.28	0	0	0	0	2,332,800	0	0	2,332,800
2002/6/2	0	0	*	*	0.0	0.0	*	*	136.23	0	0	0	0	2,333,520	0	0	2,333,520
2002/6/3	0	0	*	*	0.0	0.0	*	*	136.19	0	0	0	0	2,341,440	0	0	2,341,440
2002/6/4	0	0	*	*	0.0	0.0	*	*	136.18	0	0	0	0	2,341,440	0	0	2,341,440
2002/6/5	0	0	*	*	0.0	0.0	*	*	136.15	0	0	0	0	2,341,440	0	0	2,341,440
2002/6/6	0	0	*	*	0.0	0.0	*	*	136.10	0	0	0	0	2,347,560	0	0	2,347,560
2002/6/7	0	0	*	*	0.0	0.0	*	*	136.06	0	0	0	0	2,350,080	0	0	2,350,080
2002/6/8	0	0	*	*	0.0	0.0	*	*	136.04	0	0	0	0	2,350,080	0	0	2,350,080
2002/6/9	0	0	*	*	0.0	0.0	*	*	136.02	0	0	0	0	2,352,240	0	0	2,352,240
2002/6/10	0	0	*	*	0.0	0.0	*	*	135.99	0	0	0	0	2,358,720	0	0	2,358,720
2002/6/11	0	0	*	*	0.0	0.0	*	*	135.95	0	0	0	0	2,358,720	0	0	2,358,720
2002/6/12	0	0	*	*	0.0	0.0	*	*	135.92	0	0	0	0	2,358,720	0	0	2,358,720
2002/6/13	0	0	*	*	0.0	0.0	*	*	135.89	0	0	0	0	2,365,920	0	0	2,365,920
2002/6/14	0	0	*	*	0.0	0.0	*	*	135.85	0	0	0	0	2,374,560	0	0	2,374,560
2002/6/15	0	0	*	*	0.0	0.0	*	*	135.83	0	0	0	0	2,376,000	0	0	2,376,000
2002/6/16	0	0	*	*	0.0	0.0	*	*	135.78	0	0	0	0	2,376,000	0	0	2,376,000
2002/6/17	0	0	*	*	0.0	0.0	*	*	135.75	0	0	0	0	2,378,520	0	0	2,378,520
2002/6/18	0	0	*	*	0.0	0.0	*	*	135.74	0	0	0	0	1,589,760	0	0	1,589,760
2002/6/19	0	0	*	*	0.0	0.0	*	*	135.70	0	0	0	0	2,384,640	0	0	2,384,640
2002/6/20	0	0	*	*	0.0	0.0	*	*	135.66	0	0	0	0	2,384,640	0	0	2,384,640
2002/6/21	0	0	*	*	0.0	0.0	*	*	135.62	0	0	0	0	2,390,400	0	0	2,390,400
2002/6/22	0	0	*	*	0.0	0.0	*	*	135.58	0	0	0	0	2,401,560	0	0	2,401,560
2002/6/23	0	0	*	*	0.0	0.0	*	*	135.53	0	0	0	0	2,401,920	0	0	2,401,920
2002/6/24	0	0	*	*	0.0	0.0	*	*	135.49	0	0	0	0	2,401,920	0	0	2,401,920
2002/6/25	0	0	*	*	0.0	0.0	*	*	135.45	0	0	0	0	2,403,720	0	0	2,403,720
2002/6/26	0	0	*	*	0.0	0.0	*	*	135.41	0	0	0	0	2,410,560	0	0	2,410,560
2002/6/27	0	0	*	*	0.0	0.0	*	*	135.37	0	0	0	0	2,410,560	0	0	2,410,560
2002/6/28	0	0	*	*	0.0	0.0	*	*	135.33	0	0	0	0	2,410,560	0	0	2,410,560
2002/6/29	0	0	*	*	0.0	0.0	*	*	135.28	0	0	0	0	2,424,960	0	0	2,424,960
2002/6/30	0	0	*	*	0.0	0.0	*	*	135.23	0	0	0	0	2,427,840	0	0	2,427,840
Total/Average	0	0	0	0	0.0	0.0	0.0	0.0	#DIV/0!	135.79	0	0	0	70,480,800	0	0	70,480,800

Note : "\*" : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/7/1	0	0	*	*	0.0	0.0	*	*	135.18	0	0	0	0	2,427,840			2,427,840
2002/7/2	0	0	*	*	0.0	0.0	*	*	135.14	0	0	0	0	2,427,840			2,427,840
2002/7/3	0	0	*	*	0.0	0.0	*	*	135.09	0	0	0	0	2,427,840			2,427,840
2002/7/4	0	0	*	*	0.0	0.0	*	*	135.05	0	0	0	0	2,432,160			2,432,160
2002/7/5	0	0	*	*	0.0	0.0	*	*	135.00	0	0	0	0	2,445,120			2,445,120
2002/7/6	0	0	*	*	0.0	0.0	*	*	134.97	0	0	0	0	2,445,120			2,445,120
2002/7/7	0	0	*	*	0.0	0.0	*	*	134.94	0	0	0	0	2,452,320			2,452,320
2002/7/8	0	0	*	*	0.0	0.0	*	*	134.89	0	0	0	0	2,459,880			2,459,880
2002/7/9	0	0	*	*	0.0	0.0	*	*	134.85	0	0	0	0	2,257,200			2,257,200
2002/7/10	0	0	*	*	0.0	0.0	*	*	134.81	0	0	0	0	2,462,400			2,462,400
2002/7/11	0	0	*	*	0.0	0.0	*	*	134.76	0	0	0	0	2,464,560			2,464,560
2002/7/12	0	0	*	*	0.0	0.0	*	*	134.72	0	0	0	0	2,473,200			2,473,200
2002/7/13	0	0	*	*	0.0	0.0	*	*	134.68	0	0	0	0	2,479,680			2,479,680
2002/7/14	0	0	*	*	0.0	0.0	*	*	134.64	0	0	0	0	2,479,680			2,479,680
2002/7/15	0	0	*	*	0.0	0.0	*	*	134.59	0	0	0	0	2,485,800			2,485,800
2002/7/16	0	0	*	*	0.0	0.0	*	*	134.54	0	0	0	0	2,488,320			2,488,320
2002/7/17	0	0	*	*	0.0	0.0	*	*	134.49	0	0	0	0	2,493,720			2,493,720
2002/7/18	0	0	*	*	0.0	0.0	*	*	134.45	0	0	0	0	2,496,960			2,496,960
2002/7/19	0	0	*	*	0.0	0.0	*	*	134.40	0	0	0	0	2,496,960			2,496,960
2002/7/20	0	0	*	*	0.0	0.0	*	*	134.35	0	0	0	0	2,501,280			2,501,280
2002/7/21	0	0	*	*	0.0	0.0	*	*	134.29	0	0	0	0	2,514,240			2,514,240
2002/7/22	0	0	*	*	0.0	0.0	*	*	134.24	0	0	0	0	2,514,240			2,514,240
2002/7/23	0	0	*	*	0.0	0.0	*	*	134.19	0	0	0	0	2,521,080			2,521,080
2002/7/24	0	0	*	*	0.0	0.0	*	*	134.13	0	0	0	0	2,522,880			2,522,880
2002/7/25	0	0	*	*	0.0	0.0	*	*	134.08	0	0	0	0	2,522,880			2,522,880
2002/7/26	0	0	*	*	0.0	0.0	*	*	134.03	0	0	0	0	2,537,280			2,537,280
2002/7/27	0	0	*	*	0.0	0.0	*	*	133.99	0	0	0	0	2,540,160			2,540,160
2002/7/28	0	0	*	*	0.0	0.0	*	*	133.95	0	0	0	0	2,542,320			2,542,320
2002/7/29	0	0	*	*	0.0	0.0	*	*	133.91	0	0	0	0	2,081,520			2,081,520
2002/7/30	0	0	*	*	0.0	0.0	*	*	133.88	0	0	0	0	2,039,040			2,039,040
2002/7/31	0	0	*	*	0.0	0.0	*	*	133.84	0	0	0	0	2,039,040			2,039,040
Total/Average	0	0	0	0	0.0	0.0	0.0	0.0	#DIV/0!	134.52	0	0	0	75,472,560	0.00		75,472,560

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/8/1	0	0	*	*	0.0	0.0	*	*	133.80	0	0	0	0	2,045,880	0	0	2,045,880
2002/8/2	0	0	*	*	0.0	0.0	*	*	133.76	0	0	0	0	2,052,720	0	0	2,052,720
2002/8/3	0	0	*	*	0.0	0.0	*	*	133.71	0	0	0	0	2,056,320	0	0	2,056,320
2002/8/4	0	0	*	*	0.0	0.0	*	*	133.66	0	0	0	0	2,230,200	0	0	2,230,200
2002/8/5	0	0	*	*	0.0	0.0	*	*	133.61	0	0	0	0	2,237,760	0	0	2,237,760
2002/8/6	0	0	*	*	0.0	0.0	*	*	133.56	0	0	0	0	2,237,760	0	0	2,237,760
2002/8/7	0	0	*	*	0.0	0.0	*	*	133.51	0	0	0	0	2,263,680	0	0	2,263,680
2002/8/8	0	0	*	*	0.0	7.0	*	*	133.47	0	0	0	0	2,263,680	0	0	2,263,680
2002/8/9	0	0	*	*	0.0	0.0	*	*	133.42	0	0	0	0	2,263,680	0	0	2,263,680
2002/8/10	0	0	*	*	0.0	0.0	*	*	133.37	0	0	0	0	2,263,680	0	0	2,263,680
2002/8/11	0	0	*	*	0.0	0.0	*	*	133.32	0	0	0	0	2,268,360	0	0	2,268,360
2002/8/12	0	0	*	*	0.0	0.0	*	*	133.27	0	0	0	0	2,090,880	0	0	2,090,880
2002/8/13	0	0	*	*	0.0	0.0	*	*	133.22	0	0	0	0	2,064,960	0	0	2,064,960
2002/8/14	0	0	*	*	0.0	9.0	*	*	133.18	0	0	0	0	2,073,600	0	0	2,073,600
2002/8/15	0	0	*	*	0.0	0.0	*	*	133.13	0	0	0	0	2,073,600	0	0	2,073,600
2002/8/16	0	0	*	*	0.0	0.0	*	*	133.09	0	0	0	0	2,073,600	0	0	2,073,600
2002/8/17	0	0	*	*	0.0	0.0	*	*	133.05	0	0	0	0	2,073,600	0	0	2,073,600
2002/8/18	0	0	*	*	0.0	0.0	*	*	133.01	0	0	0	0	2,073,600	0	0	2,073,600
2002/8/19	0	0	*	*	0.0	0.0	*	*	132.97	0	0	0	0	2,073,600	0	0	2,073,600
2002/8/20	0	0	*	*	0.0	0.0	*	*	132.92	0	0	0	0	2,090,880	0	0	2,090,880
2002/8/21	0	0	*	*	0.0	0.0	*	*	132.87	0	0	0	0	2,090,880	0	0	2,090,880
2002/8/22	0	0	*	*	0.0	0.0	*	*	132.82	0	0	0	0	2,134,080	0	0	2,134,080
2002/8/23	0	0	*	*	0.0	0.0	*	*	132.77	0	0	0	0	2,142,720	0	0	2,142,720
2002/8/24	0	0	*	*	0.0	0.0	*	*	132.71	0	0	0	0	2,142,720	0	0	2,142,720
2002/8/25	0	0	*	*	0.0	0.0	*	*	132.65	0	0	0	0	2,155,680	0	0	2,155,680
2002/8/26	0	0	*	*	0.0	0.0	*	*	132.60	0	0	0	0	2,160,000	0	0	2,160,000
2002/8/27	0	0	*	*	0.0	0.0	*	*	132.55	0	0	0	0	2,167,200	0	0	2,167,200
2002/8/28	0	0	*	*	0.0	0.0	*	*	132.50	0	0	0	0	1,889,280	0	0	1,889,280
2002/8/29	0	0	*	*	0.0	0.0	*	*	132.45	0	0	0	0	1,745,280	0	0	1,745,280
2002/8/30	0	0	*	*	0.0	0.0	*	*	132.40	0	0	0	0	1,745,280	0	0	1,745,280
2002/8/31	0	0	*	*	0.0	0.0	*	*	132.36	0	0	0	0	1,745,280	0	0	1,745,280
Total/Average	0	0	0	0	0.0	16.0	0.0	0.0	#DIV/0!	133.09	0	0	0	64,964,520	0.00	0	64,964,520

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -loio (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/9/1	0	0	*	*	0.0	0.0	*	*	132.33	0	0	0	0	1,745,280	0	17=12+14	18=13+15
2002/9/2	0	0	*	*	0.0	0.0	*	*	132.29	0	0	0	0	1,998,720	0		
2002/9/3	0	0	*	*	0.0	0.0	*	*	132.24	0	0	0	0	2,021,760	0		
2002/9/4	0	0	*	*	0.0	0.0	*	*	132.20	0	0	0	0	2,027,160	0		
2002/9/5	0	0	*	*	0.0	0.0	*	*	132.15	0	0	0	0	2,030,400	0		
2002/9/6	0	0	*	*	0.0	0.0	*	*	132.09	0	0	0	0	2,034,720	0		
2002/9/7	0	0	*	*	0.0	0.0	*	*	132.04	0	0	0	0	2,040,840	0		
2002/9/8	0	0	*	*	0.0	0.0	*	*	131.97	0	0	0	0	2,047,680	0		
2002/9/9	0	0	*	*	0.0	0.0	*	*	131.91	0	0	0	0	2,047,680	0		
2002/9/10	0	0	*	*	0.0	0.0	*	*	131.86	0	0	0	0	2,055,960	0		
2002/9/11	0	0	*	*	0.0	0.0	*	*	131.80	0	0	0	0	2,059,920	0		
2002/9/12	0	0	*	*	0.0	0.0	*	*	131.74	0	0	0	0	2,064,960	0		
2002/9/13	0	0	*	*	0.0	0.0	*	*	131.68	0	0	0	0	2,070,000	0		
2002/9/14	0	0	*	*	0.0	0.0	*	*	131.62	0	0	0	0	2,073,600	0		
2002/9/15	0	0	*	*	0.0	0.0	*	*	131.56	0	0	0	0	2,082,240	0		
2002/9/16	0	0	*	*	0.0	0.0	*	*	131.50	0	0	0	0	2,108,160	0		
2002/9/17	0	0	*	*	0.0	0.0	*	*	131.44	0	0	0	0	2,122,560	0		
2002/9/18	0	0	*	*	0.0	0.0	*	*	131.38	0	0	0	0	2,125,440	0		
2002/9/19	0	0	*	*	0.0	0.0	*	*	131.32	0	0	0	0	2,133,360	0		
2002/9/20	0	0	*	*	0.0	0.0	*	*	131.26	0	0	0	0	2,134,080	0		
2002/9/21	0	0	*	*	0.0	0.0	*	*	131.21	0	0	0	0	2,138,760	0		
2002/9/22	0	0	*	*	0.0	0.0	*	*	131.14	0	0	0	0	2,142,720	0		
2002/9/23	0	0	*	*	0.0	0.0	*	*	131.07	0	0	0	0	2,142,720	0		
2002/9/24	0	0	*	*	0.0	0.0	*	*	130.99	0	0	0	0	2,148,480	0		
2002/9/25	0	0	*	*	0.0	0.0	*	*	130.92	0	0	0	0	2,080,800	0		
2002/9/26	0	0	*	*	0.0	0.0	*	*	130.85	0	0	0	0	2,073,600	0		
2002/9/27	0	0	*	*	0.0	0.0	*	*	130.79	0	0	0	0	2,143,800	0		
2002/9/28	0	0	*	*	0.0	0.0	*	*	130.72	0	0	0	0	2,208,600	0		
2002/9/29	0	0	*	*	0.0	0.0	*	*	130.66	0	0	0	0	2,211,840	0		
2002/9/30	0	0	*	*	0.0	0.0	*	*	130.60	0	0	0	0	2,100,960	0		
Total/Average	0	0	0	0	0.0	0.0	0.0	0.0	#DIV/0!	131.51	0	0	0	62,416,800	0	62,416,800	62,416,800

Note : "\*" : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/10/1	0	0	*	*	0.0	0.0	*	*	130.52	0	0	0	0	2,090,880	0	0	2,090,880
2002/10/2	0	0	*	*	0.0	0.0	*	*	130.43	0	0	0	0	2,090,880	0	0	2,090,880
2002/10/3	0	0	*	*	0.0	0.0	*	*	130.36	0	0	0	0	2,090,880	0	0	2,090,880
2002/10/4	0	0	*	*	0.0	0.0	*	*	130.30	0	0	0	0	2,105,280	0	0	2,105,280
2002/10/5	0	0	*	*	0.0	0.0	*	*	130.22	0	0	0	0	2,113,200	0	0	2,113,200
2002/10/6	0	0	*	*	0.0	0.0	*	*	130.15	0	0	0	0	2,120,400	0	0	2,120,400
2002/10/7	0	0	*	*	0.0	0.0	*	*	130.08	0	0	0	0	2,125,440	0	0	2,125,440
2002/10/8	0	0	*	*	0.0	0.0	*	*	130.00	0	0	0	0	2,129,040	0	0	2,129,040
2002/10/9	0	0	*	*	0.0	0.0	*	*	129.92	0	0	0	0	2,151,360	0	0	2,151,360
2002/10/10	0	0	*	*	0.0	0.0	*	*	129.84	0	0	0	0	2,194,560	0	0	2,194,560
2002/10/11	0	0	*	*	0.0	0.0	*	*	129.76	0	0	0	0	1,972,800	0	0	1,972,800
2002/10/12	0	0	*	*	0.0	0.0	*	*	129.68	0	0	0	0	1,966,320	0	0	1,966,320
2002/10/13	0	0	*	*	0.0	0.0	*	*	129.60	0	0	0	0	1,969,920	0	0	1,969,920
2002/10/14	0	0	*	*	0.0	0.0	*	*	129.53	0	0	0	0	1,969,920	0	0	1,969,920
2002/10/15	0	0	*	*	0.0	0.0	*	*	129.48	0	0	0	0	1,969,920	0	0	1,969,920
2002/10/16	0	0	*	*	0.0	0.0	*	*	129.54	0	0	0	0	267,840	0	0	267,840
2002/10/17	0	0	*	*	0.0	0.0	*	*	129.54	0	0	0	0	185,760	0	0	185,760
2002/10/18	0	0	*	*	0.0	0.0	*	*	129.52	0	0	0	0	185,760	0	0	185,760
2002/10/19	0	0	*	*	0.0	0.0	*	*	129.51	0	0	0	0	185,760	0	0	185,760
2002/10/20	0	0	*	*	0.0	0.0	*	*	129.48	0	0	0	0	185,760	0	0	185,760
2002/10/21	0	0	*	*	0.0	0.0	*	*	129.47	0	0	0	0	185,760	0	0	185,760
2002/10/22	0	0	*	*	0.0	0.0	*	*	129.46	0	0	0	0	185,760	0	0	185,760
2002/10/23	0	0	*	*	0.0	0.0	*	*	129.45	0	0	0	0	185,760	0	0	185,760
2002/10/24	0	0	*	*	0.0	0.0	*	*	129.43	0	0	0	0	185,760	0	0	185,760
2002/10/25	0	0	*	*	0.0	0.0	*	*	129.42	0	0	0	0	185,760	0	0	185,760
2002/10/26	0	0	*	*	0.0	0.0	*	*	129.41	0	0	0	0	185,760	0	0	185,760
2002/10/27	0	0	*	*	0.0	0.0	*	*	129.39	0	0	0	0	185,760	0	0	185,760
2002/10/28	0	4	*	*	1.1	0.0	*	*	129.38	0	0	0	0	185,760	0	0	185,760
2002/10/29	0	0	*	*	0.0	0.0	*	*	129.37	0	0	0	0	185,760	0	0	185,760
2002/10/30	0	0	*	*	0.0	0.0	*	*	129.36	0	0	0	0	186,480	0	0	186,480
2002/10/31	0	5	*	*	1.3	0.0	*	*	129.36	0	0	0	0	186,840	0	0	186,840
Total/Average	0	9	0	0	2.4	0.0	0.0	0.0	129.71	0	0	0	0	34,116,840	0.00	0	34,116,840

Note : \* \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -loio (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/11/1	2	0	10	30	8.3	19.5	*	*	129.39	0	0	0	0	186,840	16	17=12+14	186,840
2002/11/2	0	12	0	4	3.7	0.0	*	*	129.36	0	0	0	0	186,840	16	17=12+14	186,840
2002/11/3	0	4	0	0	1.1	0.0	*	*	129.35	0	0	0	0	186,840	16	17=12+14	186,840
2002/11/4	0	0	0	0	0.0	0.0	*	*	129.34	0	0	0	0	186,840	16	17=12+14	186,840
2002/11/5	0	0	0	4	0.5	0.0	*	*	129.33	0	0	0	0	186,840	16	17=12+14	186,840
2002/11/6	0	0	0	0	0.0	0.0	*	*	129.32	0	0	0	0	186,840	16	17=12+14	186,840
2002/11/7	0	20	0	0	5.3	0.0	*	*	129.31	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/8	0	0	0	0	0.0	0.0	*	*	129.30	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/9	0	0	0	0	0.0	0.0	*	*	129.27	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/10	0	0	0	0	0.0	0.0	*	*	129.26	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/11	0	0	0	0	0.0	0.0	*	*	129.26	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/12	0	0	0	0	0.0	0.0	*	*	129.26	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/13	0	0	0	0	0.0	0.0	*	*	129.26	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/14	0	6	0	0	1.6	0.0	*	*	129.25	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/15	0	0	0	0	0.0	2.0	*	*	129.23	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/16	0	7	0	0	1.9	36.0	*	*	129.23	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/17	0	11	0	3	3.3	2.5	*	*	129.30	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/18	0	9	9	4	6.6	12.0	*	*	129.28	0	0	0	0	187,920	16	17=12+14	187,920
2002/11/19	0	0	19	50	14.1	3.5	*	*	129.29	0	0	0	0	191,520	16	17=12+14	191,520
2002/11/20	0	6	20	15	11.8	6.0	*	*	129.29	0	0	0	0	189,000	16	17=12+14	189,000
2002/11/21	0	0	0	0	0.0	0.5	*	*	129.29	0	0	0	0	189,000	16	17=12+14	189,000
2002/11/22	0	11	0	0	2.9	0.0	*	*	129.29	0	0	0	0	189,000	16	17=12+14	189,000
2002/11/23	0	3	0	0	0.8	0.0	*	*	129.30	0	0	0	0	66,600	16	17=12+14	66,600
2002/11/24	0	13	23	4	13.5	0.0	*	*	129.30	0	0	0	0	66,600	16	17=12+14	66,600
2002/11/25	0	15	0	0	4.0	0.0	*	*	129.32	0	0	0	0	200,880	16	17=12+14	200,880
2002/11/26	0	0	0	0	0.0	0.0	*	*	129.32	0	0	0	0	199,800	16	17=12+14	199,800
2002/11/27	0	0	0	0	0.0	0.0	*	*	129.32	0	0	0	0	194,400	16	17=12+14	194,400
2002/11/28	0	0	0	0	0.0	0.0	*	*	129.31	0	0	0	0	194,400	16	17=12+14	194,400
2002/11/29	0	0	0	0	0.0	0.0	*	*	129.31	0	0	0	0	194,400	16	17=12+14	194,400
2002/11/30	0	0	0	0	0.0	0.0	*	*	129.29	0	0	0	0	68,040	16	17=12+14	68,040
Total/Average	2	117	81	114	79.4	82.0	0.0	0.0	129.30	0	0	0	0	5,320,800	16	17=12+14	5,320,800

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2002

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2002/12/1	0	0	0	0	0.0	0.0	0.0	*		129.30				204,120			204,120
2002/12/2	0	0	0	0	0.0	0.0	0.0	*		129.30				0			0
2002/12/3	0	0	0	0	0.0	0.0	0.0	*		129.30				0			0
2002/12/4	6	0	0	0	1.2	0.0	0.0	*		129.30				0			0
2002/12/5	0	5	0	15	3.2	0.0	0.0	*		129.31				0			0
2002/12/6	0	0	0	10	1.3	29.0	1.5	*		129.52				0			0
2002/12/7	3	62	16	0	23.8	0	1.0	*		129.53				0			0
2002/12/8	24	0	11	0	9.2	0	1.0	*		129.57				125,640			125,640
2002/12/9	0	0	0	20	2.5	4.5	4.5	*		129.59				189,000			189,000
2002/12/10	0	12	25	0	13.6	26.0	22.0	*		129.77				192,600			192,600
2002/12/11	7	24	3	10	10.3	22.0	22.0	*		129.80				0			0
2002/12/12	2	8	0	5	3.1	0.0	0.0	*		129.80				187,920			187,920
2002/12/13	0	7	15	0	8.1	23.5	23.5	*		129.96				0			0
2002/12/14	41	20	0	60	20.8	0.0	0.0	*		130.09				126,000			126,000
2002/12/15	0	6	19	0	9.5	0.0	0.0	*		130.09				252,000			252,000
2002/12/16	4	0	35	0	15.3	1.5	1.5	*		130.10				247,680			247,680
2002/12/17	0	8	7	0	5.0	0.0	0.0	*		130.16				249,120			249,120
2002/12/18	7	0	0	0	1.4	0.0	0.0	*		130.15				244,800			244,800
2002/12/19	3	0	0	0	0.6	0.0	0.0	*		130.14				239,040			239,040
2002/12/20	10	0	0	8	2.9	0.0	0.0	*		130.16				239,040			239,040
2002/12/21	11	10	16	0	11.4	3.5	3.5	*		130.20				244,800			244,800
2002/12/22	0	0	13	40	10.4	1.5	1.5	*		130.22				244,800			244,800
2002/12/23	11	0	3	10	4.6	1.5	1.5	*		130.26				244,800			244,800
2002/12/24	2	7	46	0	21.3	11.5	11.5	*		130.33				62,280			62,280
2002/12/25	0	10	4	20	6.8	8.5	8.5	*		130.43				62,280			62,280
2002/12/26	4	25	5	35	13.9	27.5	27.5	*		130.55				62,280			62,280
2002/12/27	0	23	14	0	11.9	17.0	17.0	*		130.65				241,920			241,920
2002/12/28	9	22	14	20	15.9	11.0	11.0	*		130.81				0			0
2002/12/29	30	13	6	10	13.0	1.0	1.0	*		130.91				61,200			61,200
2002/12/30	14	15	2	45	13.2	40.5	40.5	*		131.05				0			0
2002/12/31	3	16	3	15	8.0	51.5	51.5	*		131.26				0			0
Total/Average	188	277	254	308	254.1	232.5	232.5	0.0	#DIV/0!	130.01				3,721,320		0.00	3,721,320

Note : \* \* \* \* : No data is available



Wonogiri Dam Operation Data Record in 2003

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/1/1	24	13	*	0	8.1	16.0	*			131.43					0		0
2003/1/2	20	40	*	18	16.8	13.0	*			131.58					0		0
2003/1/3	24	23	*	80	20.8	15.0	*			132.06					0		0
2003/1/4	73	63	*	125	46.6	0.0	*			133.28					0		0
2003/1/5	68	34	*	10	23.5	99.0	*			133.83					0		0
2003/1/6	0	0	*	5	0.6	6.0	*			133.89					0		0
2003/1/7	0	0	*	0	0.0	0.0	*			133.93					0		0
2003/1/8	0	0	*	0	0.0	0.0	*			133.94					0		0
2003/1/9	0	7	*	0	1.9	0.0	*			133.95					0		0
2003/1/10	0	0	*	0	0.0	0.0	*			133.95				317,520			317,520
2003/1/11	0	0	*	0	0.0	0.0	*			133.94				1,093,320			1,093,320
2003/1/12	9	0	*	0	1.7	0.0	*			133.93				1,602,360			1,602,360
2003/1/13	0	3	*	5	1.4	8.0	*			133.87				2,110,320			2,110,320
2003/1/14	0	0	*	0	0.0	0.0	*			133.83				2,865,600			2,865,600
2003/1/15	0	0	*	0	0.0	0.0	*			133.78				2,546,640			2,546,640
2003/1/16	0	0	*	0	0.0	0.0	*			133.71				2,986,560			2,986,560
2003/1/17	0	0	*	0	0.0	0.0	*			133.67				2,880,720			2,880,720
2003/1/18	0	0	*	0	0.0	0.0	*			133.64				2,656,800			2,656,800
2003/1/19	0	0	*	0	0.0	0.0	*			133.58				2,679,840			2,679,840
2003/1/20	0	0	*	0	0.0	0.0	*			133.53				2,291,040			2,291,040
2003/1/21	10	5	*	0	3.3	13.0	*			133.51				1,637,280			1,637,280
2003/1/22	8	11	*	0	4.5	11.0	*			133.60				2,046,240			2,046,240
2003/1/23	15	47	*	25	18.6	36.0	*			133.70				2,335,680			2,335,680
2003/1/24	11	10	*	15	6.7	0.0	*			133.79				2,468,160			2,468,160
2003/1/25	12	12	*	0	5.5	0.0	*			133.72				2,467,440			2,467,440
2003/1/26	0	0	*	0	0.0	23.0	*			133.69				2,467,440			2,467,440
2003/1/27	4	14	*	0	4.5	21.0	*			133.66				2,578,320			2,578,320
2003/1/28	0	55	*	0	14.7	0.0	*			133.60				2,592,000			2,592,000
2003/1/29	75	9	*	15	18.8	0.0	*			133.56				2,592,000			2,592,000
2003/1/30	0	0	*	0	0.0	10.0	*			133.59				2,484,000			2,484,000
2003/1/31	0	0	*	20	2.5	0.0	*			133.62				2,601,000			2,601,000
Total/Average	353	346	0	318	200.6	271.0	0.0	#DIV/0!	#DIV/0!	133.53				50,300,280	0.00		50,300,280

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2003

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)	O= (m <sup>3</sup> /s)	V=(m <sup>3</sup> )	O= (m <sup>3</sup> /s)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/2/1	40	20	*	*	13.1	8.5	*			133.79		0		2,461,680			2,461,680
2003/2/2	17	17	*	*	7.8	10.5	*			133.94		0		2,566,080			2,566,080
2003/2/3	28	14	*	*	9.2	2.0	*			133.99		0		2,542,320			2,542,320
2003/2/4	5	0	*	*	1.0	3.5	*			134.01		0		2,542,320			2,542,320
2003/2/5	11	4	*	*	3.2	0.5	*			134.04		0		2,548,800			2,548,800
2003/2/6	0	0	*	*	0.0	31.0	*			134.03		0		2,548,800			2,548,800
2003/2/7	30	19	*	*	10.9	0.0	*			134.06		0		2,548,800			2,548,800
2003/2/8	0	0	*	*	0.0	8.0	*			134.10		0		2,548,800			2,548,800
2003/2/9	8	13	*	*	5.0	10.0	*			134.12		0		2,527,200			2,527,200
2003/2/10	55	10	*	*	13.3	3.0	*			134.23		0		2,522,880			2,522,880
2003/2/11	5	10	*	*	3.6	3.0	*			134.33		0		2,522,880			2,522,880
2003/2/12	5	18	*	*	5.8	0.0	*			134.33		0		2,522,880			2,522,880
2003/2/13	30	14	*	*	9.6	57.5	*			134.37		0		2,522,880			2,522,880
2003/2/14	0	0	*	*	0.0	1.5	*			134.45		0		2,522,880			2,522,880
2003/2/15	25	0	*	*	4.9	28.5	*			134.47		0		2,408,760			2,408,760
2003/2/16	0	17	*	*	4.5	29.5	*			134.68		0		2,481,840			2,481,840
2003/2/17	40	22	*	*	13.6	22.5	*			134.96		0		2,661,120			2,661,120
2003/2/18	5	26	*	*	7.9	32.0	*			135.30		0		3,057,120			3,057,120
2003/2/19	36	37	*	*	16.9	32.0	*			135.63		0		4,296,960			4,296,960
2003/2/20	0	28	*	*	7.5	24.5	*			135.77		3,780,000		5,234,400			9,014,400
2003/2/21	10	13	*	*	5.4	0.0	*			135.81		4,320,000		5,218,560			9,538,560
2003/2/22	0	0	*	*	0.0	0.0	*			135.75		4,320,000		5,235,840			9,555,840
2003/2/23	0	0	*	*	0.0	43.0	*			135.68		4,320,000		5,235,840			9,555,840
2003/2/24	7	14	*	*	5.1	34.0	*			135.65		4,320,000		5,235,840			9,555,840
2003/2/25	0	43	*	*	11.5	5.0	*			135.52		4,320,000		5,235,840			9,555,840
2003/2/26	25	0	*	*	4.9	46.5	*			135.60		4,320,000		5,235,840			9,555,840
2003/2/27	20	46	*	*	16.2	9.0	*			135.78		7,920,000		5,307,840			13,227,840
2003/2/28	40	8	*	*	9.9	3.5	*			135.99		8,640,000		5,322,240			13,962,240
Total/Average	442	393	0	0	190.7	449.0	0.0	#DIV/0!	#DIV/0!	134.80		46,260,000		97,617,240		0.00	143,877,240

Note : " \* " : No data is available

**Wonogiri Dam Operation Data Record in 2003**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O= (m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O= (m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O= (m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/3/1	0	3	*	0	0.8	0.0	*			135.88		8,640,000		5,322,240			13,962,240
2003/3/2	4	0	*	0	0.8	2.0	*			135.70		8,640,000		5,356,800			13,996,800
2003/3/3	6	1	*	10	2.7	33.0	*			135.70		8,640,000		5,436,000			14,076,000
2003/3/4	0	60	*	15	17.9	17.0	*			135.79		8,640,000		5,372,640			14,012,640
2003/3/5	10	62	*	0	18.5	20.5	*			135.87		8,640,000		5,424,480			14,064,480
2003/3/6	20	22	*	20	12.3	0.0	*			135.98		8,640,000		5,443,200			14,083,200
2003/3/7	0	0	*	0	0.0	1.0	*			135.88		8,640,000		5,443,200			14,083,200
2003/3/8	0	0	*	15	1.9	76.5	*			136.09		8,640,000		5,568,480			14,208,480
2003/3/9	20	58	*	75	28.7	0.5	*			136.22		8,640,000		5,633,280			14,273,280
2003/3/10	0	0	*	0	0.0	5.0	*			136.15		8,640,000		5,633,280			14,273,280
2003/3/11	0	0	*	0	0.0	0.0	*			136.06		8,640,000		5,633,280			14,273,280
2003/3/12	0	0	*	0	0.0	6.5	*			135.90		8,640,000		5,592,960			14,232,960
2003/3/13	0	0	*	0	0.0	0.0	*			135.79		1,080,000		5,592,960			6,672,960
2003/3/14	0	0	*	0	0.0	6.0	*			135.73		0		5,382,720			5,382,720
2003/3/15	2	0	*	15	2.3	11.0	*			135.92		0		4,089,600			4,089,600
2003/3/16	0	61	*	20	18.8	0.0	*			136.10		0		4,204,080			4,204,080
2003/3/17	0	0	*	30	3.8	13.5	*			136.18		0		4,935,600			4,935,600
2003/3/18	0	31	*	37	12.9	0.0	*			136.27		0		5,028,480			5,028,480
2003/3/19	0	0	*	0	0.0	54.5	*			136.26		0		5,028,480			5,028,480
2003/3/20	0	5	*	30	5.1	17.0	*			136.29		0		4,919,040			4,919,040
2003/3/21	0	0	*	0	0.0	0.0	*			136.34		0		4,976,640			4,976,640
2003/3/22	40	21	*	25	16.5	2.0	*			136.55		0		5,045,760			5,045,760
2003/3/23	0	4	*	0	1.1	0.0	*			136.62		0		4,729,680			4,729,680
2003/3/24	0	0	*	0	0.0	2.5	*			136.61		0		4,924,800			4,924,800
2003/3/25	10	0	*	0	1.9	8.0	*			136.61		0		4,955,040			4,955,040
2003/3/26	0	0	*	0	0.0	0.0	*			136.59		0		5,045,760			5,045,760
2003/3/27	24	0	*	0	4.7	0.0	*			136.55		0		4,835,520			4,835,520
2003/3/28	0	0	*	0	0.0	0.0	*			136.51		0		5,045,760			5,045,760
2003/3/29	0	10	*	0	2.7	0.0	*			136.47		0		5,045,760			5,045,760
2003/3/30	0	0	*	0	0.0	5.0	*			136.39		0		4,835,520			4,835,520
2003/3/31	0	0	*	0	0.0	0.0	*			136.33		0		5,015,520			5,015,520
<b>Total/Average</b>	<b>136</b>	<b>338</b>	<b>0</b>	<b>292</b>	<b>153.1</b>	<b>281.5</b>	<b>0.0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>136.17</b>		<b>104,760,000</b>		<b>159,496,560</b>		<b>0.00</b>	<b>264,256,560</b>

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2003

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	13	14	15	16	O=(m <sup>3</sup> /s)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/4/1	0	0	0	*	0.0	0.0	0.0	*	136.29	0	0	0	0	4,998,240	0	0	4,998,240
2003/4/2	0	0	0	*	0.0	0.0	0.0	*	136.24	0	0	0	0	4,564,080	0	0	4,564,080
2003/4/3	0	0	0	*	0.0	0.0	0.0	*	136.21	0	0	0	0	3,144,960	0	0	3,144,960
2003/4/4	0	0	0	*	0.0	0.0	0.0	*	136.15	0	0	0	0	3,147,120	0	0	3,147,120
2003/4/5	0	0	0	*	0.0	0.0	0.0	*	136.11	0	0	0	0	3,175,200	0	0	3,175,200
2003/4/6	0	0	0	*	0.0	0.0	0.0	*	136.07	0	0	0	0	3,222,720	0	0	3,222,720
2003/4/7	0	0	0	*	0.0	0.0	0.0	*	136.04	0	0	0	0	2,543,040	0	0	2,543,040
2003/4/8	0	11	0	*	2.9	0.0	0.0	*	135.99	0	0	0	0	2,405,520	0	0	2,405,520
2003/4/9	0	3	0	*	0.8	2.5	0.0	*	135.96	0	0	0	0	2,412,720	0	0	2,412,720
2003/4/10	0	0	0	*	0.0	0.0	0.0	*	135.92	0	0	0	0	2,421,360	0	0	2,421,360
2003/4/11	0	0	0	*	0.0	1.0	0.0	*	135.88	0	0	0	0	2,430,000	0	0	2,430,000
2003/4/12	0	5	0	*	1.3	0.0	0.0	*	135.85	0	0	0	0	2,436,480	0	0	2,436,480
2003/4/13	0	0	0	*	0.0	5.0	0.0	*	135.82	0	0	0	0	2,436,480	0	0	2,436,480
2003/4/14	0	0	0	*	0.0	0.0	0.0	*	135.80	0	0	0	0	2,154,960	0	0	2,154,960
2003/4/15	0	0	0	*	0.0	28.0	0.0	*	135.78	0	0	0	0	2,056,320	0	0	2,056,320
2003/4/16	0	0	0	*	0.0	0.0	0.0	*	135.75	0	0	0	0	2,056,320	0	0	2,056,320
2003/4/17	0	0	0	*	0.0	0.0	0.0	*	135.72	0	0	0	0	2,057,760	0	0	2,057,760
2003/4/18	0	0	0	*	0.0	0.0	0.0	*	135.70	0	0	0	0	2,064,960	0	0	2,064,960
2003/4/19	0	18	0	*	4.8	0.0	0.0	*	135.67	0	0	0	0	2,064,960	0	0	2,064,960
2003/4/20	0	0	0	*	0.0	0.0	0.0	*	135.64	0	0	0	0	2,064,960	0	0	2,064,960
2003/4/21	0	0	0	*	0.0	0.0	0.0	*	135.61	0	0	0	0	2,073,600	0	0	2,073,600
2003/4/22	0	0	0	*	0.0	0.0	0.0	*	135.58	0	0	0	0	2,073,600	0	0	2,073,600
2003/4/23	0	7	0	*	1.9	0.0	0.0	*	135.55	0	0	0	0	2,073,600	0	0	2,073,600
2003/4/24	0	0	0	*	0.0	0.0	0.0	*	135.52	0	0	0	0	2,079,000	0	0	2,079,000
2003/4/25	0	0	0	*	0.0	0.0	0.0	*	135.49	0	0	0	0	1,928,880	0	0	1,928,880
2003/4/26	0	0	0	*	0.0	0.0	0.0	*	135.46	0	0	0	0	1,468,800	0	0	1,468,800
2003/4/27	0	0	0	*	0.0	0.0	0.0	*	135.44	0	0	0	0	1,468,800	0	0	1,468,800
2003/4/28	0	0	0	*	0.0	0.0	0.0	*	135.42	0	0	0	0	1,468,800	0	0	1,468,800
2003/4/29	0	0	0	*	0.0	0.0	0.0	*	135.40	0	0	0	0	1,468,800	0	0	1,468,800
2003/4/30	0	0	0	*	0.0	0.0	0.0	*	135.38	0	0	0	0	1,468,800	0	0	1,468,800
Total/Average	0	44	0	0	11.7	36.5	0.0	0.0	#DIV/0!	135.78	0	0	0	71,430,840	0	0	71,430,840

Note : " \* " : No data is available

**Wonggiri Dam Operation Data Record in 2003**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonggiri Dam (mm)	Pan Evaporation at Wonggiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/5/1	0	6	*	*	1.6	9.5	*			135.37		0		1,879,200			1,879,200
2003/5/2	0	0	*	*	0.0	0.0	*			135.36		0		1,961,280			1,961,280
2003/5/3	0	0	*	*	0.0	0.0	*			135.33		0		1,962,000			1,962,000
2003/5/4	0	0	*	*	0.0	0.0	*			135.30		0		1,969,920			1,969,920
2003/5/5	0	0	*	*	0.0	0.0	*			135.28		0		1,969,920			1,969,920
2003/5/6	0	0	*	*	0.0	0.0	*			135.25		0		1,972,080			1,972,080
2003/5/7	0	0	*	*	0.0	0.0	*			135.22		0		1,987,200			1,987,200
2003/5/8	0	5	*	*	1.3	0.0	*			135.21		0		1,987,200			1,987,200
2003/5/9	0	0	*	*	0.0	0.5	*			135.26		0		1,902,960			1,902,960
2003/5/10	0	0	*	*	0.0	0.0	*			135.24		0		1,650,240			1,650,240
2003/5/11	0	0	*	*	0.0	0.0	*			135.24		0		1,650,240			1,650,240
2003/5/12	0	3	*	*	0.8	0.0	*			135.26		0		1,650,240			1,650,240
2003/5/13	0	11	*	*	2.9	0.0	*			135.24		0		1,650,240			1,650,240
2003/5/14	0	0	*	*	0.0	0.0	*			135.22		0		1,650,240			1,650,240
2003/5/15	0	0	*	*	0.0	0.0	*			135.19		0		1,650,240			1,650,240
2003/5/16	0	0	*	*	0.0	0.0	*			135.17		0		1,652,400			1,652,400
2003/5/17	0	0	*	*	0.0	0.0	*			135.13		0		1,657,080			1,657,080
2003/5/18	0	0	*	*	0.0	0.0	*			135.12		0		1,658,880			1,658,880
2003/5/19	0	0	*	*	0.0	0.0	*			135.09		0		1,661,760			1,661,760
2003/5/20	0	0	*	*	0.0	0.0	*			135.06		0		1,667,520			1,667,520
2003/5/21	0	0	*	*	0.0	0.0	*			135.03		0		1,667,520			1,667,520
2003/5/22	0	0	*	*	0.0	0.0	*			135.00		0		1,668,240			1,668,240
2003/5/23	0	0	*	*	0.0	0.0	*			134.97		0		1,709,280			1,709,280
2003/5/24	0	0	*	*	0.0	0.0	*			134.94		0		2,073,600			2,073,600
2003/5/25	0	0	*	*	0.0	0.0	*			134.90		0		2,073,600			2,073,600
2003/5/26	0	0	*	*	0.0	0.0	*			134.86		0		1,992,600			1,992,600
2003/5/27	0	0	*	*	0.0	0.0	*			134.82		0		1,987,200			1,987,200
2003/5/28	0	0	*	*	0.0	0.0	*			134.78		0		2,054,160			2,054,160
2003/5/29	0	0	*	*	0.0	0.0	*			134.73		0		2,073,600			2,073,600
2003/5/30	0	0	*	*	0.0	0.0	*			134.69		0		2,073,600			2,073,600
2003/5/31	0	0	*	*	0.0	0.0	*			134.65		0		2,073,600			2,073,600
Total/Average	0	25	0	0	6.7	28.0	0.0	#DIV/0!	#DIV/0!	135.09		0		57,237,840		0.00	57,237,840

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2003

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/6/1	0	0	*	*	0.0	0.0	*		134.61			0		2,073,600			2,073,600
2003/6/2	0	0	*	*	0.0	0.0	*		134.57			0		2,390,400			2,390,400
2003/6/3	0	0	*	*	0.0	0.0	*		134.52			0		2,419,200			2,419,200
2003/6/4	0	0	*	*	0.0	0.0	*		134.48			0		2,412,720			2,412,720
2003/6/5	0	0	*	*	0.0	0.0	*		134.44			0		2,393,280			2,393,280
2003/6/6	0	0	*	*	0.0	0.0	*		134.40			0		2,393,280			2,393,280
2003/6/7	0	0	*	*	0.0	0.0	*		134.36			0		2,390,040			2,390,040
2003/6/8	0	0	*	*	0.0	0.0	*		134.32			0		2,367,360			2,367,360
2003/6/9	0	0	*	*	0.0	0.0	*		134.28			0		2,359,440			2,359,440
2003/6/10	0	0	*	*	0.0	0.0	*		134.24			0		2,364,480			2,364,480
2003/6/11	0	0	*	*	0.0	0.0	*		134.19			0		1,599,480			1,599,480
2003/6/12	0	0	*	*	0.0	0.0	*		134.15			0		2,367,360			2,367,360
2003/6/13	0	0	*	*	0.0	0.0	*		134.11			0		2,369,520			2,369,520
2003/6/14	0	0	*	*	0.0	0.0	*		134.06			0		2,384,640			2,384,640
2003/6/15	0	0	*	*	0.0	0.0	*		134.02			0		2,384,640			2,384,640
2003/6/16	0	0	*	*	0.0	0.0	*		133.97			0		2,384,640			2,384,640
2003/6/17	0	0	*	*	0.0	0.0	*		133.93			0		2,396,880			2,396,880
2003/6/18	0	0	*	*	0.0	0.0	*		133.88			0		2,411,280			2,411,280
2003/6/19	0	0	*	*	0.0	0.0	*		133.83			0		2,419,200			2,419,200
2003/6/20	0	0	*	*	0.0	0.0	*		133.78			0		2,419,200			2,419,200
2003/6/21	0	3	*	*	0.8	0.0	*		133.73			0		2,419,200			2,419,200
2003/6/22	0	0	*	*	0.0	0.0	*		133.70			0		2,384,640			2,384,640
2003/6/23	0	0	*	*	0.0	0.0	*		133.66			0		2,384,640			2,384,640
2003/6/24	0	0	*	*	0.0	0.0	*		133.61			0		2,384,640			2,384,640
2003/6/25	0	0	*	*	0.0	0.0	*		133.57			0		2,400,480			2,400,480
2003/6/26	0	0	*	*	0.0	0.0	*		133.52			0		2,383,200			2,383,200
2003/6/27	0	0	*	*	0.0	0.0	*		133.47			0		2,166,480			2,166,480
2003/6/28	0	0	*	*	0.0	0.0	*		133.43			0		2,099,520			2,099,520
2003/6/29	0	0	*	*	0.0	0.0	*		133.38			0		2,099,520			2,099,520
2003/6/30	0	0	*	*	0.0	0.0	*		133.34			0		2,099,520			2,099,520
Total/Average	0	3	0	0	0.8	0.0	0.0	#DIV/0!	#DIV/0!	133.98		0		69,522,480			69,522,480

Note : " \* " : No data is available

Wonggiri Dam Operation Data Record in 2003

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonggiri Dam (mm)	Pan Evaporation at Wonggiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -loio (mm)	Jatisro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway		Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/7/1	0	0	*	*	0.0	0.0	*	*	133.30	0	0	0	0	2,099,520			2,099,520
2003/7/2	0	0	*	*	0.0	0.0	*	*	133.25	0	0	0	0	2,113,200			2,113,200
2003/7/3	0	0	*	*	0.0	0.0	*	*	133.20	0	0	0	0	2,116,800			2,116,800
2003/7/4	0	0	*	*	0.0	0.0	*	*	133.15	0	0	0	0	2,121,840			2,121,840
2003/7/5	0	0	*	*	0.0	0.0	*	*	133.10	0	0	0	0	2,125,440			2,125,440
2003/7/6	0	0	*	*	0.0	0.0	*	*	133.06	0	0	0	0	2,129,760			2,129,760
2003/7/7	0	0	*	*	0.0	0.0	*	*	133.02	0	0	0	0	2,142,720			2,142,720
2003/7/8	0	0	*	*	0.0	0.0	*	*	132.97	0	0	0	0	2,164,320			2,164,320
2003/7/9	0	0	*	*	0.0	0.0	*	*	132.92	0	0	0	0	2,229,120			2,229,120
2003/7/10	0	0	*	*	0.0	0.0	*	*	132.87	0	0	0	0	2,229,120			2,229,120
2003/7/11	0	0	*	*	0.0	0.0	*	*	132.81	0	0	0	0	2,234,880			2,234,880
2003/7/12	0	0	*	*	0.0	0.0	*	*	132.76	0	0	0	0	2,242,080			2,242,080
2003/7/13	0	0	*	*	0.0	0.0	*	*	132.72	0	0	0	0	2,246,400			2,246,400
2003/7/14	0	0	*	*	0.0	0.0	*	*	132.67	0	0	0	0	2,246,400			2,246,400
2003/7/15	0	0	*	*	0.0	0.0	*	*	132.62	0	0	0	0	2,244,240			2,244,240
2003/7/16	0	0	*	*	0.0	0.0	*	*	132.57	0	0	0	0	2,237,760			2,237,760
2003/7/17	0	0	*	*	0.0	0.0	*	*	132.52	0	0	0	0	2,237,760			2,237,760
2003/7/18	0	0	*	*	0.0	0.0	*	*	132.47	0	0	0	0	2,250,000			2,250,000
2003/7/19	0	0	*	*	0.0	0.0	*	*	132.42	0	0	0	0	2,255,040			2,255,040
2003/7/20	0	0	*	*	0.0	0.0	*	*	132.37	0	0	0	0	2,229,120			2,229,120
2003/7/21	0	0	*	*	0.0	0.0	*	*	132.31	0	0	0	0	2,224,440			2,224,440
2003/7/22	0	0	*	*	0.0	0.0	*	*	132.25	0	0	0	0	2,231,280			2,231,280
2003/7/23	0	0	*	*	0.0	0.0	*	*	132.18	0	0	0	0	2,237,760			2,237,760
2003/7/24	0	0	*	*	0.0	0.0	*	*	132.12	0	0	0	0	2,237,760			2,237,760
2003/7/25	0	0	*	*	0.0	0.0	*	*	132.07	0	0	0	0	2,242,440			2,242,440
2003/7/26	0	0	*	*	0.0	0.0	*	*	132.01	0	0	0	0	2,246,400			2,246,400
2003/7/27	0	0	*	*	0.0	0.0	*	*	131.97	0	0	0	0	2,246,400			2,246,400
2003/7/28	0	0	*	*	0.0	0.0	*	*	131.91	0	0	0	0	2,198,880			2,198,880
2003/7/29	0	0	*	*	0.0	0.0	*	*	131.86	0	0	0	0	2,181,240			2,181,240
2003/7/30	0	0	*	*	0.0	0.0	*	*	131.80	0	0	0	0	2,185,920			2,185,920
2003/7/31	0	0	*	*	0.0	0.0	*	*	131.73	0	0	0	0	2,188,080			2,188,080
Total/Average	0	0	0	0	0.0	0.0	0.0	0.0	#DIV/0!	132.55				68,316,120	0.00		68,316,120

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2003

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lo (mm)	Jatisro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/8/1	0	0	*	*	0.0	0.0	*			131.67		0		2,111,760			2,111,760
2003/8/2	0	0	*	*	0.0	0.0	*			131.62		0		1,703,520			1,703,520
2003/8/3	0	0	*	*	0.0	0.0	*			131.59		0		1,347,840			1,347,840
2003/8/4	0	0	*	*	0.0	0.0	*			131.54		0		1,347,840			1,347,840
2003/8/5	0	0	*	*	0.0	0.0	*			131.50		0		1,461,240			1,461,240
2003/8/6	0	0	*	*	0.0	0.0	*			131.45		0		1,529,280			1,529,280
2003/8/7	0	0	*	*	0.0	0.0	*			131.40		0		1,544,400			1,544,400
2003/8/8	0	0	*	*	0.0	0.0	*			131.36		0		1,555,200			1,555,200
2003/8/9	0	0	*	*	0.0	0.0	*			131.32		0		1,555,200			1,555,200
2003/8/10	0	0	*	*	0.0	0.0	*			131.27		0		1,555,200			1,555,200
2003/8/11	0	0	*	*	0.0	0.0	*			131.22		0		1,719,360			1,719,360
2003/8/12	0	0	*	*	0.0	0.0	*			131.16		0		1,883,520			1,883,520
2003/8/13	0	0	*	*	0.0	0.0	*			131.11		0		1,887,840			1,887,840
2003/8/14	0	0	*	*	0.0	0.0	*			131.05		0		1,892,160			1,892,160
2003/8/15	0	0	*	*	0.0	0.0	*			130.99		0		1,892,160			1,892,160
2003/8/16	0	0	*	*	0.0	0.0	*			130.93		0		1,895,400			1,895,400
2003/8/17	0	0	*	*	0.0	0.0	*			130.87		0		1,896,480			1,896,480
2003/8/18	0	0	*	*	0.0	0.0	*			130.81		0		1,883,520			1,883,520
2003/8/19	0	0	*	*	0.0	0.0	*			130.75		0		1,883,520			1,883,520
2003/8/20	0	0	*	*	0.0	0.0	*			130.70		0		1,485,000			1,485,000
2003/8/21	0	0	*	*	0.0	0.0	*			130.66		0		1,416,960			1,416,960
2003/8/22	0	0	*	*	0.0	0.0	*			130.62		0		1,416,960			1,416,960
2003/8/23	0	0	*	*	0.0	0.0	*			130.57		0		1,421,280			1,421,280
2003/8/24	0	0	*	*	0.0	0.0	*			130.52		0		1,425,600			1,425,600
2003/8/25	0	0	*	*	0.0	0.0	*			130.47		0		1,429,920			1,429,920
2003/8/26	0	0	*	*	0.0	0.0	*			130.41		0		1,442,880			1,442,880
2003/8/27	0	0	*	*	0.0	0.0	*			130.35		0		1,442,880			1,442,880
2003/8/28	0	0	*	*	0.0	0.0	*			130.30		0		1,455,840			1,455,840
2003/8/29	0	0	*	*	0.0	0.0	*			130.24		0		1,460,160			1,460,160
2003/8/30	0	0	*	*	0.0	0.0	*			130.18		0		1,464,840			1,464,840
2003/8/31	0	0	*	*	0.0	0.0	*			130.13		0		1,468,800			1,468,800
Total/Average	0	0	0	0	0.0	0.0	0.0			130.93		0		49,876,560	0.00		49,876,560

Note : \* \* \* : No data is available



**Wonogiri Dam Operation Data Record in 2003**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/9/1	0	0	*	*	0.0	0.0	*	*	130.08	0	0	0	0	1,468,800	0	17=12+14	1,468,800
2003/9/2	0	0	*	*	0.0	0.0	*	*	130.02	0	0	0	0	1,468,800	0	17=12+14	1,468,800
2003/9/3	0	0	*	*	0.0	0.0	*	*	129.96	0	0	0	0	1,695,600	0	17=12+14	1,695,600
2003/9/4	0	0	*	*	0.0	0.0	*	*	129.91	0	0	0	0	1,728,000	0	17=12+14	1,728,000
2003/9/5	0	0	*	*	0.0	0.0	*	*	129.85	0	0	0	0	1,734,120	0	17=12+14	1,734,120
2003/9/6	0	0	*	*	0.0	0.0	*	*	129.79	0	0	0	0	1,736,640	0	17=12+14	1,736,640
2003/9/7	0	0	*	*	0.0	0.0	*	*	129.73	0	0	0	0	1,736,640	0	17=12+14	1,736,640
2003/9/8	0	0	*	*	0.0	0.0	*	*	129.68	0	0	0	0	1,737,720	0	17=12+14	1,737,720
2003/9/9	0	0	*	*	0.0	0.0	*	*	129.62	0	0	0	0	1,745,280	0	17=12+14	1,745,280
2003/9/10	0	0	*	*	0.0	0.0	*	*	129.55	0	0	0	0	1,745,280	0	17=12+14	1,745,280
2003/9/11	0	0	*	*	0.0	0.0	*	*	129.48	0	0	0	0	1,745,280	0	17=12+14	1,745,280
2003/9/12	0	0	*	*	0.0	0.0	*	*	129.39	0	0	0	0	1,752,120	0	17=12+14	1,752,120
2003/9/13	0	0	*	*	0.0	0.0	*	*	129.31	0	0	0	0	1,753,920	0	17=12+14	1,753,920
2003/9/14	0	0	*	*	0.0	0.0	*	*	129.24	0	0	0	0	1,770,480	0	17=12+14	1,770,480
2003/9/15	0	0	*	*	0.0	0.0	*	*	129.17	0	0	0	0	1,755,360	0	17=12+14	1,755,360
2003/9/16	0	0	*	*	0.0	0.0	*	*	129.09	0	0	0	0	1,756,800	0	17=12+14	1,756,800
2003/9/17	0	0	*	*	0.0	0.0	*	*	129.01	3.5	0	0	0	1,756,440	0	17=12+14	1,756,440
2003/9/18	0	0	*	*	0.0	0.0	*	*	128.93	0.0	0	0	0	1,771,200	0	17=12+14	1,771,200
2003/9/19	0	0	*	*	0.0	0.0	*	*	128.85	0.0	0	0	0	1,782,000	0	17=12+14	1,782,000
2003/9/20	0	0	*	*	0.0	0.0	*	*	128.76	0.0	0	0	0	1,814,400	0	17=12+14	1,814,400
2003/9/21	0	0	*	*	0.0	0.0	*	*	128.69	0.0	0	0	0	1,659,960	0	17=12+14	1,659,960
2003/9/22	0	0	*	*	0.0	0.0	*	*	128.64	0.0	0	0	0	1,572,480	0	17=12+14	1,572,480
2003/9/23	0	0	*	*	0.0	0.0	*	*	128.57	0.0	0	0	0	1,572,480	0	17=12+14	1,572,480
2003/9/24	0	0	*	*	0.0	0.0	*	*	128.50	0.0	0	0	0	1,572,480	0	17=12+14	1,572,480
2003/9/25	0	0	*	*	0.0	0.0	*	*	128.42	0.0	0	0	0	1,576,440	0	17=12+14	1,576,440
2003/9/26	0	0	*	*	0.0	0.0	*	*	128.34	0.0	0	0	0	1,585,440	0	17=12+14	1,585,440
2003/9/27	0	0	*	*	0.0	0.0	*	*	128.26	0.0	0	0	0	1,598,400	0	17=12+14	1,598,400
2003/9/28	0	0	*	*	0.0	0.0	*	*	128.18	0.0	0	0	0	1,598,400	0	17=12+14	1,598,400
2003/9/29	0	0	*	*	0.0	0.0	*	*	128.11	0.0	0	0	0	1,598,400	0	17=12+14	1,598,400
2003/9/30	0	0	*	*	0.0	0.0	*	*	128.04	0.0	0	0	0	1,598,400	0	17=12+14	1,598,400
Total/Average	0	0	0	0	0.0	3.5	0.0	0.0	#DIV/0!	129.10	0	0	0	50,387,760	0	0	50,387,760

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2003

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/10/1	0	0	*	*	0.0	0.0	*			127.97		0		1,598,400			1,598,400
2003/10/2	0	0	*	*	0.0	0.0	*			127.90		0		1,598,400			1,598,400
2003/10/3	0	0	*	*	0.0	0.0	*			127.84		0		1,598,400			1,598,400
2003/10/4	0	0	*	*	0.0	0.0	*			127.78		0		1,626,120			1,626,120
2003/10/5	0	0	*	*	0.0	0.0	*			127.73		0		1,658,880			1,658,880
2003/10/6	0	0	*	*	0.0	0.0	*			127.66		0		1,658,880			1,658,880
2003/10/7	0	0	*	*	0.0	0.0	*			127.59		0		1,658,880			1,658,880
2003/10/8	0	0	*	*	0.0	0.0	*			127.53		0		898,560			898,560
2003/10/9	0	0	*	*	0.0	0.0	*			127.50		0		1,313,280			1,313,280
2003/10/10	0	0	*	*	0.0	0.0	*			127.41		0		1,658,880			1,658,880
2003/10/11	0	0	*	*	0.0	0.0	*			127.36		0		483,840			483,840
2003/10/12	0	0	*	*	0.0	0.0	*			127.34		0		691,200			691,200
2003/10/13	0	0	*	*	0.0	0.0	*			127.29		0		1,451,520			1,451,520
2003/10/14	0	0	*	*	0.0	0.0	*			127.20		0		1,658,880			1,658,880
2003/10/15	0	0	*	*	0.0	0.0	*			127.11		0		1,244,160			1,244,160
2003/10/16	0	0	*	*	0.0	0.0	*			127.08		0		0			0
2003/10/17	0	0	*	*	0.0	0.0	*			127.07		0		276,480			276,480
2003/10/18	0	0	*	*	0.0	0.0	*			127.05		0		345,600			345,600
2003/10/19	0	0	*	*	0.0	0.0	*			127.04		0		345,600			345,600
2003/10/20	0	0	*	*	0.0	0.0	*			127.01		0		207,360			207,360
2003/10/21	0	0	*	*	0.0	0.0	*			127.01		0		0			0
2003/10/22	0	0	*	*	0.0	0.0	*			127.00		0		0			0
2003/10/23	0	0	*	*	0.0	0.0	*			127.00		0		0			0
2003/10/24	0	0	*	*	0.0	0.0	*			126.99		0		0			0
2003/10/25	0	0	*	*	0.0	0.0	*			127.01	16.5	0		0			0
2003/10/26	0	0	*	*	0.0	0.0	*			127.00		0		0			0
2003/10/27	0	0	*	*	0.0	0.0	*			127.00		0		0			0
2003/10/28	0	0	*	*	0.0	0.0	*			127.00		0		0			0
2003/10/29	0	0	*	*	0.0	0.0	*			127.00		0		0			0
2003/10/30	0	0	*	*	0.0	0.0	*			127.04		0		0			0
2003/10/31	0	0	*	*	0.0	0.0	*			127.12		0		0			0
Total/Average	0	0	0	0	0.0	34.6	0.0	#DIV/0!	#DIV/0!	127.28		0		21,973,320		0.00	21,973,320

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2003

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -loio (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbin	Electric Power (KWH)	O= (m <sup>3</sup> /s)	V=(m <sup>3</sup> )	O= (m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2003/11/1	*	0	*	*	0.0	3.0	*		127.24	0				0			0
2003/11/2	*	0	*	*	0.0	14.0	*		127.27	0				0			0
2003/11/3	*	0	*	*	0.0	1.5	*		127.35	0				0			0
2003/11/4	*	0	*	*	0.0	0.0	*		127.38	0				0			0
2003/11/5	*	0	*	*	0.0	0.0	*		127.38	0				0			0
2003/11/6	*	0	*	*	0.0	0.0	*		127.37	0				0			0
2003/11/7	*	0	*	*	0.0	0.0	*		127.37	0				0			0
2003/11/8	*	0	*	*	0.0	17.0	*		127.40	0				0			0
2003/11/9	*	0	*	*	0.0	0.0	*		127.39	0				0			0
2003/11/10	*	0	*	*	0.0	0.0	*		127.39	0				0			0
2003/11/11	*	0	*	*	0.0	0.0	*		127.39	0				0			0
2003/11/12	*	0	*	*	0.0	0.0	*		127.37	0				0			0
2003/11/13	*	0	*	*	0.0	0.0	*		127.35	0				0			0
2003/11/14	*	0	*	*	0.0	0.0	*		127.33	0				0			0
2003/11/15	*	0	*	*	0.0	0.0	*		127.32	0				0			0
2003/11/16	*	0	*	*	0.0	0.0	*		127.33	0				0			0
2003/11/17	*	0	*	*	0.0	0.0	*		127.35	0				0			0
2003/11/18	*	0	*	*	0.0	12.0	*		127.37	0				0			0
2003/11/19	*	0	*	*	0.0	2.0	*		127.41	0				0			0
2003/11/20	*	0	*	*	0.0	1.5	*		127.43	0				0			0
2003/11/21	*	0	*	*	0.0	0.5	*		127.69	0				547,200			547,200
2003/11/22	*	0	*	*	0.0	0.5	*		127.70	0				0			0
2003/11/23	*	0	*	*	0.0	0.5	*		127.75	0				0			0
2003/11/24	*	0	*	*	0.0	7.0	*		127.78	0				0			0
2003/11/25	*	0	*	*	0.0	14.5	*		127.94	0				0			0
2003/11/26	*	0	*	*	0.0	1.0	*		128.07	0				0			0
2003/11/27	*	0	*	*	0.0	0.0	*		128.15	0				0			0
2003/11/28	*	0	*	*	0.0	0.0	*		128.09	0				0			0
2003/11/29	*	0	*	*	0.0	13.0	*		128.08	0				1,094,400			1,094,400
2003/11/30	*	0	*	*	0.0	0.0	*		127.99	0				1,361,520			1,361,520
Total/Average	0	0	0	0	0.0	109.0	0.0	#DIV/0!	127.55	0	#DIV/0!	0	3,003,120	0	3,003,120	0	3,003,120

Note : "\*" : No data is available



**Wonogiri Dam Operation Data Record in 2004**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -loio (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/1/1	0	0	0	*	0.0	0.0	3.0			129.00	0	0	0	4,328,640			4,328,640
2004/1/2	0	0	0	*	0.0	0.0	5.0			128.89	0	0	0	2,090,880			2,090,880
2004/1/3	0	0	0	*	0.0	0.0	3.0			128.83	0	0	0	2,090,880			2,090,880
2004/1/4	18	0	0	*	3.5	5.5	2.0			128.76	0	0	0	2,090,880			2,090,880
2004/1/5	13	9	14	*	10.7	14.0	3.0			128.74	0	0	0	2,090,880			2,090,880
2004/1/6	10	17	12	*	11.4	14.0	2.0			128.72	0	0	0	1,762,560			1,762,560
2004/1/7	14	1	0	*	8.0	2.5	3.0			128.72	0	0	0	1,598,400			1,598,400
2004/1/8	5	0	17	*	8.0	10.5	1.0			128.71	0	0	0	1,465,200			1,465,200
2004/1/9	18	1	15	*	10.0	10.5	2.0			128.75	0	0	0	1,598,400			1,598,400
2004/1/10	2	8	18	*	10.0	0.5	1.0			128.78	0	0	0	1,598,400			1,598,400
2004/1/11	0	13	0	*	3.5	0.0	5.0			128.87	0	0	0	1,598,400			1,598,400
2004/1/12	0	0	0	*	0.0	0.0	5.0			128.85	0	0	0	1,598,400			1,598,400
2004/1/13	0	0	11	*	4.6	0.0	3.5			128.82	0	0	0	1,598,400			1,598,400
2004/1/14	0	0	0	*	0.0	0.0	3.0			128.79	0	0	0	1,398,600			1,398,600
2004/1/15	0	10	0	*	2.7	0.5	4.5			128.89	0	0	0	1,198,800			1,198,800
2004/1/16	0	6	14	*	7.4	15.5	2.0			128.93	0	0	0	599,400			599,400
2004/1/17	5	61	11	*	21.8	2.5	2.0			129.24	0	0	0	0			0
2004/1/18	12	20	9	*	11.4	9.8	3.5			129.32	0	0	0	0			0
2004/1/19	2	7	0	*	2.3	0.0	4.0			129.43	0	0	0	0			0
2004/1/20	0	29	15	*	14.0	22.0	3.0			129.55	0	0	0	0			0
2004/1/21	15	26	0	*	9.9	0.5	3.0			129.69	0	0	0	0			0
2004/1/22	40	10	0	*	10.4	0.5	3.5			129.75	0	0	0	0			0
2004/1/23	0	8	0	*	2.1	32.0	3.0			130.34	0	0	0	0			0
2004/1/24	10	67	69	*	48.4	42.0	1.5			130.84	0	0	0	0			0
2004/1/25	0	4	71	*	30.5	16.5	2.0			130.95	0	0	0	0			0
2004/1/26	12	3	35	*	17.6	15.0	2.0			131.44	0	0	0	0			0
2004/1/27	0	14	21	*	12.4	21.5	1.8			131.87	0	0	0	0			0
2004/1/28	28	17	15	*	16.2	0.0	3.0			132.03	0	0	0	605,880			605,880
2004/1/29	5	0	17	*	8.0	7.0	2.0			132.37	0	0	0	1,046,520			1,046,520
2004/1/30	2	85	12	*	28.1	1.5	2.5			132.55	0	0	0	380,520			380,520
2004/1/31	7	0	8	*	4.7	9.0	1.0			132.63	0	0	0	0			0
Total/Average	218	416	384	0	312.3	239.3	85.8	#DIV/0!	#DIV/0!	129.78	0	0	0	30,740,040	0.00		30,740,040

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatiro -no -warno (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/2/1	0	0	12	*	5.0	2.5	2.5			132.78		0		1,728,000			1,728,000
2004/2/2	0	0	0	*	0.0	0.0	4.0			132.96		0		1,733,760			1,733,760
2004/2/3	0	43	17	*	18.5	29.5	2.0			133.02		0		1,304,640			1,304,640
2004/2/4	18	0	6	*	6.0	1.5	1.5			133.18		0		1,286,280			1,286,280
2004/2/5	13	0	0	*	2.5	7.0	3.0			133.28		0		1,559,520			1,559,520
2004/2/6	10	0	22	*	11.0	24.5	1.0			133.34		0		1,558,080			1,558,080
2004/2/7	14	25	5	*	11.5	1.5	2.0			133.44		0		1,537,200			1,537,200
2004/2/8	5	16	19	*	13.1	0.0	3.0			133.51		0		1,537,200			1,537,200
2004/2/9	18	3	0	*	4.3	0.0	3.5			133.54		0		1,644,480			1,644,480
2004/2/10	2	0	0	*	0.4	1.5	4.5			133.54		0		1,699,920			1,699,920
2004/2/11	0	4	15	*	7.3	0.0	5.0			133.55		0		1,526,760			1,526,760
2004/2/12	0	0	0	*	0.0	31.0	2.0			133.55		0		1,526,760			1,526,760
2004/2/13	0	7	16	*	8.5	1.5	3.0			133.59		0		1,526,760			1,526,760
2004/2/14	0	0	11	*	4.6	3.0	3.0			133.63		0		1,526,760			1,526,760
2004/2/15	0	0	0	*	0.0	34.0	2.0			133.68		0		1,526,760			1,526,760
2004/2/16	0	22	15	*	12.1	0.0	3.5			133.84		0		1,511,640			1,511,640
2004/2/17	5	0	5	*	3.0	1.0	2.0			133.87		0		1,509,120			1,509,120
2004/2/18	12	0	0	*	2.3	0.0	3.0			133.87		0		1,509,120			1,509,120
2004/2/19	2	0	12	*	5.4	1.5	2.0			133.99		0		1,354,680			1,354,680
2004/2/20	0	51	0	*	13.6	56.0	1.5			134.36		0		0			0
2004/2/21	15	31	7	*	14.1	0.0	3.0			134.79		0		397,440			397,440
2004/2/22	40	0	0	*	7.8	0.0	3.5			134.79		0		1,192,320			1,192,320
2004/2/23	0	0	12	*	5.0	9.0	1.5			134.84		0		1,192,320			1,192,320
2004/2/24	10	13	0	*	5.4	3.5	2.3			134.85		0		1,183,680			1,183,680
2004/2/25	0	17	0	*	4.5	24.0	1.0			135.02		0		1,183,680			1,183,680
2004/2/26	12	12	0	*	5.5	0.5	3.0			135.04		0		1,422,360			1,422,360
2004/2/27	0	1	0	*	0.3	11.5	2.0			135.23		0		1,520,640			1,520,640
2004/2/28	28	10	0	*	8.1	0.0	3.0			135.30		0		1,810,800			1,810,800
2004/2/29	0	0	0	*	0.0	0.0	3.0			133.94		0		39,010,680		0.00	39,010,680
Total/Average	204	255	174	0	179.7	244.5	73.3	#DIV/0!	#DIV/0!	133.94	0	0	0	39,010,680	0.00	0	39,010,680

Note : " \* " : No data is available

**Wonogiri Dam Operation Data Record in 2004**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lo (mm)	Jatiro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/3/1	0	0	9	*	3.7	0.0	3.0			135.36		0		2,412,000			2,412,000
2004/3/2	3	1	17	*	7.9	0.0	3.5			135.33		0		2,419,200			2,419,200
2004/3/3	10	0	0	*	1.9	0.0	2.0			135.43		0		2,419,200			2,419,200
2004/3/4	18	13	5	*	9.0	21.5	1.0			135.70		0		2,268,000			2,268,000
2004/3/5	0	44	11	*	16.3	32.0	1.5			135.80		0		1,512,000			1,512,000
2004/3/6	9	19	0	*	6.8	1.5	3.5			135.80		0		2,057,400			2,057,400
2004/3/7	27	20	0	*	10.6	5.0	3.0			135.79		0		2,384,640			2,384,640
2004/3/8	40	5	14	*	14.9	11.0	2.0			135.85		0		2,285,280			2,285,280
2004/3/9	0	4	0	*	1.1	0.0	2.0			135.88		0		2,382,120			2,382,120
2004/3/10	6	1	31	*	14.3	2.0	2.0			135.88		0		2,372,400			2,372,400
2004/3/11	0	0	16	*	6.6	0.0	2.5			135.95		0		2,267,640			2,267,640
2004/3/12	0	21	0	*	5.6	14.0	1.5			136.00		0		2,378,880			2,378,880
2004/3/13	9	0	25	*	12.1	5.5	2.2			136.08		0		2,830,320			2,830,320
2004/3/14	0	3	0	*	0.8	33.0	1.5			136.10		0		3,024,000			3,024,000
2004/3/15	0	8	0	*	2.1	0.0	2.8			136.12		0		3,513,600			3,513,600
2004/3/16	0	0	15	*	6.2	0.0	3.0			136.11		0		3,715,200			3,715,200
2004/3/17	24	0	0	*	4.7	28.0	3.0			136.10		0		3,544,560			3,544,560
2004/3/18	7	7	21	*	11.9	4.5	2.0			136.11		0		2,347,920			2,347,920
2004/3/19	0	6	0	*	1.6	0.0	3.5			136.11		0		2,341,440			2,341,440
2004/3/20	0	0	25	*	10.4	1.5	4.0			136.25		0		2,341,440			2,341,440
2004/3/21	0	0	15	*	6.2	0.0	3.0			136.30		0		2,332,800			2,332,800
2004/3/22	0	3	56	*	24.0	32.0	1.5			136.36		0		2,332,800			2,332,800
2004/3/23	0	4	0	*	1.1	0.0	3.0			136.38		0		2,332,800			2,332,800
2004/3/24	0	0	0	*	0.0	1.5	4.0			136.37		0		2,332,800			2,332,800
2004/3/25	0	0	0	*	0.0	0.0	5.0			136.35		0		2,332,800			2,332,800
2004/3/26	0	0	0	*	0.0	3.5	4.0			136.33		0		2,332,800			2,332,800
2004/3/27	0	0	0	*	0.0	0.0	6.0			136.30		0		2,332,800			2,332,800
2004/3/28	0	0	0	*	0.0	0.0	5.0			136.29		0		1,696,320			1,696,320
2004/3/29	0	0	0	*	0.0	0.0	5.0			136.27		0		1,434,240			1,434,240
2004/3/30	0	0	0	*	0.0	10.0	2.0			136.28		0		1,434,240			1,434,240
2004/3/31	0	56	0	*	15.0	0.5	3.5			136.31		0		1,434,240			1,434,240
Total/Average	153	215	260	0	194.7	207.0	91.5	#DIV/0!	#DIV/0!	136.04		0		73,145,880		0.00	73,145,880

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/4/1	3	40	0	*	11.3	2.0	4.0			136.31	0			1,434,240			1,434,240
2004/4/2	2	0	15	*	6.6	15.0	4.0			136.34	0			1,434,240			1,434,240
2004/4/3	0	0	18	*	7.5	0.0	*			136.37	0			1,434,240			1,434,240
2004/4/4	0	0	0	*	0.0	1.0	6.0			136.36	0			1,434,240			1,434,240
2004/4/5	0	0	0	*	0.0	7.5	4.0			136.35	0			1,434,240			1,434,240
2004/4/6	0	10	0	*	2.7	0.0	3.0			136.35	0			1,434,240			1,434,240
2004/4/7	0	0	0	*	0.0	0.0	6.0			136.35	0			1,434,240			1,434,240
2004/4/8	0	0	0	*	0.0	12.0	3.0			136.34	0			1,434,240			1,434,240
2004/4/9	0	0	0	*	0.0	0.0	3.5			136.39	0			1,434,240			1,434,240
2004/4/10	0	8	0	*	2.1	0.0	4.0			136.38	0			1,434,240			1,434,240
2004/4/11	15	0	16	*	9.5	0.0	3.5			136.39	0			1,434,240			1,434,240
2004/4/12	0	0	15	*	6.2	0.0	4.0			136.39	0			1,434,240			1,434,240
2004/4/13	0	10	0	*	2.7	0.0	7.0			136.37	0			1,434,240			1,434,240
2004/4/14	0	0	0	*	0.0	0.0	5.5			136.36	0			1,434,240			1,434,240
2004/4/15	0	0	0	*	0.0	0.0	6.0			136.33	0			1,434,240			1,434,240
2004/4/16	0	1	0	*	0.3	0.0	5.5			136.31	0			1,434,240			1,434,240
2004/4/17	0	0	0	*	0.0	1.0	6.5			136.29	0			1,434,240			1,434,240
2004/4/18	0	0	0	*	0.0	0.0	6.0			136.26	0			1,434,240			1,434,240
2004/4/19	10	5	0	*	3.3	0.0	7.0			136.24	0			1,434,240			1,434,240
2004/4/20	0	0	0	*	0.0	0.0	6.5			136.22	0			1,434,240			1,434,240
2004/4/21	0	0	0	*	0.0	0.0	5.0			136.20	0			1,441,440			1,441,440
2004/4/22	0	0	0	*	0.0	0.0	5.0			136.17	0			1,442,880			1,442,880
2004/4/23	0	0	0	*	0.0	0.0	4.0			136.15	0			1,442,880			1,442,880
2004/4/24	0	20	0	*	5.3	11.5	4.2			136.14	0			1,449,000			1,449,000
2004/4/25	0	0	0	*	0.0	0.0	4.5			136.12	0			1,451,520			1,451,520
2004/4/26	0	0	0	*	0.0	0.0	6.0			136.09	0			1,468,800			1,468,800
2004/4/27	0	0	0	*	0.0	0.0	4.0			136.07	0			1,477,440			1,477,440
2004/4/28	0	0	0	*	0.0	15.5	4.0			136.06	0			1,477,440			1,477,440
2004/4/29	0	5	0	*	1.3	0.0	4.0			136.05	0			1,477,440			1,477,440
2004/4/30	0	0	0	*	0.0	0.0	7.0			136.02	0			1,477,440			1,477,440
Total/Average	30	99	64	0	58.7	65.5	142.7	#DIV/0!	#DIV/0!	136.26	0			43,291,080			43,291,080

Note : " \* " : No data is available



**Wonogiri Dam Operation Data Record in 2004**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/5/1	*	0	0	*	0.0	0.0	6.5			136.00		0		1,632,960			1,632,960
2004/5/2	*	0	0	*	0.0	0.0	6.0			135.97		0		1,638,000			1,638,000
2004/5/3	*	0	0	*	0.0	0.0	5.0			135.95		0		1,641,600			1,641,600
2004/5/4	*	0	0	*	0.0	0.0	7.5			135.94		0		1,641,600			1,641,600
2004/5/5	*	0	0	*	0.0	0.0	6.0			135.92		0		1,641,600			1,641,600
2004/5/6	*	0	0	*	0.0	0.0	6.0			135.90		0		1,643,760			1,643,760
2004/5/7	*	30	0	*	8.0	0.0	5.0			135.88		0		1,650,240			1,650,240
2004/5/8	*	32	0	*	8.5	0.0	7.0			135.86		0		1,650,240			1,650,240
2004/5/9	*	0	0	*	0.0	0.0	6.5			135.83		0		1,650,240			1,650,240
2004/5/10	*	0	0	*	0.0	0.0	7.0			135.80		0		1,685,160			1,685,160
2004/5/11	*	0	0	*	0.0	0.0	7.0			135.77		0		1,681,920			1,681,920
2004/5/12	*	0	0	*	0.0	0.0	6.0			135.74		0		1,687,680			1,687,680
2004/5/13	*	0	0	*	0.0	0.0	6.0			135.72		0		1,687,680			1,687,680
2004/5/14	*	0	0	*	0.0	0.0	6.0			135.68		0		1,693,440			1,693,440
2004/5/15	*	0	0	*	0.0	0.0	5.8			135.66		0		1,698,120			1,698,120
2004/5/16	*	0	0	*	0.0	0.0	5.5			135.62		0		1,814,400			1,814,400
2004/5/17	*	0	0	*	0.0	0.0	7.0			135.61		0		1,814,400			1,814,400
2004/5/18	*	0	0	*	0.0	0.0	6.0			135.58		0		1,819,800			1,819,800
2004/5/19	*	32	0	*	8.5	0.0	5.0			135.54		0		1,823,040			1,823,040
2004/5/20	*	9	0	*	2.4	0.0	5.0			135.52		0		1,823,040			1,823,040
2004/5/21	*	0	0	*	0.0	0.0	6.0			135.50		0		1,825,200			1,825,200
2004/5/22	*	0	0	*	0.0	0.0	5.0			135.48		0		1,831,680			1,831,680
2004/5/23	*	11	0	*	2.9	2.5	4.5			135.45		0		1,831,680			1,831,680
2004/5/24	*	0	0	*	0.0	7.0	5.0			135.43		0		1,831,680			1,831,680
2004/5/25	*	5	0	*	1.3	1.0	4.0			135.41		0		1,831,680			1,831,680
2004/5/26	*	0	0	*	0.0	0.0	4.0			135.38		0		1,831,680			1,831,680
2004/5/27	*	4	0	*	1.1	0.0	5.5			135.37		0		1,837,440			1,837,440
2004/5/28	*	26	0	*	6.9	0.0	4.5			135.41		0		1,840,320			1,840,320
2004/5/29	*	4	0	*	1.1	8.5	3.2			135.45		0		1,840,320			1,840,320
2004/5/30	*	52	0	*	13.9	0.0	6.0			135.42		0		1,840,320			1,840,320
2004/5/31	*	0	0	*	0.0	0.0	7.5			135.41		0		1,908,360			1,908,360
Total/Average	0	205	0	0	54.7	19.0	177.0	#DIV/0!	#DIV/0!	135.65		0		54,269,280		0.00	54,269,280

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/6/1	*	0	0	*	0.0	0.0	6.0			135.39		0		2,073,600			2,073,600
2004/6/2	*	0	0	*	0.0	0.0	7.0			135.36		0		2,073,600			2,073,600
2004/6/3	*	0	0	*	0.0	0.0	6.0			135.32		0		2,073,600			2,073,600
2004/6/4	*	0	0	*	0.0	0.0	6.0			135.29		0		2,080,080			2,080,080
2004/6/5	*	0	0	*	0.0	0.0	5.0			135.25		0		2,082,240			2,082,240
2004/6/6	*	0	0	*	0.0	0.0	7.0			135.22		0		2,082,240			2,082,240
2004/6/7	*	0	0	*	0.0	0.0	6.0			135.18		0		2,090,160			2,090,160
2004/6/8	*	0	0	*	0.0	0.0	7.0			135.15		0		2,090,880			2,090,880
2004/6/9	*	0	0	*	0.0	0.0	5.0			135.11		0		1,821,600			1,821,600
2004/6/10	*	0	0	*	0.0	0.0	4.0			135.08		0		2,201,760			2,201,760
2004/6/11	*	6	0	*	1.6	0.0	5.0			135.05		0		2,108,160			2,108,160
2004/6/12	*	7	0	*	1.9	0.0	3.0			135.02		0		2,108,160			2,108,160
2004/6/13	*	0	0	*	0.0	0.0	4.5			135.00		0		2,108,160			2,108,160
2004/6/14	*	0	0	*	0.0	0.0	7.0			134.97		0		2,109,600			2,109,600
2004/6/15	*	0	0	*	0.0	0.0	7.0			134.93		0		2,116,800			2,116,800
2004/6/16	*	0	0	*	0.0	0.0	6.0			134.90		0		2,269,800			2,269,800
2004/6/17	*	0	0	*	0.0	0.0	8.0			134.86		0		2,332,800			2,332,800
2004/6/18	*	0	0	*	0.0	0.0	6.5			134.82		0		2,340,000			2,340,000
2004/6/19	*	0	0	*	0.0	0.0	7.0			134.78		0		2,341,440			2,341,440
2004/6/20	*	0	0	*	0.0	0.0	6.0			134.73		0		2,341,440			2,341,440
2004/6/21	*	0	0	*	0.0	0.0	6.5			134.69		0		2,346,840			2,346,840
2004/6/22	*	0	0	*	0.0	0.0	6.0			134.65		0		2,350,080			2,350,080
2004/6/23	*	0	0	*	0.0	0.0	7.5			134.60		0		2,358,360			2,358,360
2004/6/24	*	0	0	*	0.0	0.0	7.0			134.55		0		2,358,720			2,358,720
2004/6/25	*	0	0	*	0.0	0.0	7.5			134.51		0		2,365,560			2,365,560
2004/6/26	*	0	0	*	0.0	0.0	7.0			134.46		0		2,367,360			2,367,360
2004/6/27	*	0	0	*	0.0	0.0	8.0			134.42		0		2,372,400			2,372,400
2004/6/28	*	0	0	*	0.0	0.0	8.0			134.37		0		2,376,000			2,376,000
2004/6/29	*	0	0	*	0.0	0.0	6.5			134.33		0		2,379,960			2,379,960
2004/6/30	*	0	0	*	0.0	0.0	6.0			134.28		0		2,384,640			2,384,640
Total/Average	0	13	0	0	3.5	16.5	189.0	#DIV/0!	#DIV/0!	134.88		0		66,506,040			66,506,040

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warjo (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/7/1	*	0	0	*	0.0	0.0	6.0			134.23		0		2,384,640			2,384,640
2004/7/2	*	0	0	*	0.0	2.0	4.0			134.19		0		2,384,640			2,384,640
2004/7/3	*	0	0	*	0.0	0.0	4.0			134.15		0		2,399,040			2,399,040
2004/7/4	*	0	0	*	0.0	0.0	5.0			134.11		0		2,401,920			2,401,920
2004/7/5	*	0	0	*	0.0	0.0	4.0			134.07		0		2,401,920			2,401,920
2004/7/6	*	0	0	*	0.0	0.0	4.5			134.02		0		2,401,920			2,401,920
2004/7/7	*	0	0	*	0.0	0.0	7.5			133.98		0		2,407,680			2,407,680
2004/7/8	*	0	0	*	0.0	0.0	6.8			133.93		0		2,419,200			2,419,200
2004/7/9	*	0	0	*	0.0	0.0	6.5			133.88		0		2,419,200			2,419,200
2004/7/10	*	0	0	*	0.0	0.0	6.0			133.84		0		2,419,200			2,419,200
2004/7/11	*	0	0	*	0.0	0.0	4.0			133.79		0		2,427,480			2,427,480
2004/7/12	*	2	0	*	0.5	0.0	1.0			133.75		0		2,427,840			2,427,840
2004/7/13	*	0	12	*	5.0	6.0	3.0			133.71		0		2,427,840			2,427,840
2004/7/14	*	0	0	*	0.0	0.0	5.0			133.69		0		2,442,960			2,442,960
2004/7/15	*	0	0	*	0.0	0.0	5.8			133.65		0		2,453,760			2,453,760
2004/7/16	*	0	0	*	0.0	0.0	5.0			133.62		0		2,006,640			2,006,640
2004/7/17	*	0	0	*	0.0	0.0	4.5			133.59		0		1,987,200			1,987,200
2004/7/18	*	0	0	*	0.0	0.0	4.0			133.55		0		1,987,200			1,987,200
2004/7/19	*	0	0	*	0.0	0.0	6.0			133.51		0		1,995,480			1,995,480
2004/7/20	*	0	0	*	0.0	0.0	5.0			133.47		0		1,995,840			1,995,840
2004/7/21	*	0	0	*	0.0	0.0	5.0			133.44		0		1,995,840			1,995,840
2004/7/22	*	0	0	*	0.0	0.0	6.0			133.39		0		2,001,960			2,001,960
2004/7/23	*	0	0	*	0.0	0.0	7.0			133.35		0		2,004,480			2,004,480
2004/7/24	*	0	0	*	0.0	0.0	7.0			133.30		0		2,004,480			2,004,480
2004/7/25	*	0	0	*	0.0	0.0	8.0			133.26		0		2,018,160			2,018,160
2004/7/26	*	0	0	*	0.0	0.0	7.0			133.21		0		2,021,760			2,021,760
2004/7/27	*	0	0	*	0.0	0.0	6.0			133.17		0		2,021,760			2,021,760
2004/7/28	*	0	0	*	0.0	0.0	7.0			133.12		0		2,030,400			2,030,400
2004/7/29	*	0	0	*	0.0	0.0	5.0			133.06		0		2,030,400			2,030,400
2004/7/30	*	0	0	*	0.0	0.0	10.0			133.02		0		2,030,400			2,030,400
2004/7/31	*	0	0	*	0.0	0.0	8.0			132.97		0		2,032,920			2,032,920
Total/Average	0	2	12	0	5.5	8.0	173.6	#DIV/0!	#DIV/0!	133.61		0		68,384,160		0.00	68,384,160

Note : \* \* \* : No data is available

Wonggiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonggiri Dam (mm)	Pan Evaporation at Wonggiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/8/1	0	0	0	*	0.0	0.0	8.0			132.93		0		2,039,040			2,039,040
2004/8/2	0	0	0	*	0.0	0.0	7.5			132.87		0		2,315,520			2,315,520
2004/8/3	0	0	0	*	0.0	0.0	7.5			132.81		0		2,315,520			2,315,520
2004/8/4	0	0	0	*	0.0	0.0	8.0			132.75		0		2,315,520			2,315,520
2004/8/5	0	0	0	*	0.0	0.0	7.0			132.69		0		2,347,560			2,347,560
2004/8/6	0	0	0	*	0.0	0.0	7.0			132.64		0		2,324,160			2,324,160
2004/8/7	0	0	0	*	0.0	0.0	8.0			132.58		0		2,325,960			2,325,960
2004/8/8	0	0	0	*	0.0	0.0	7.0			132.52		0		2,332,800			2,332,800
2004/8/9	0	0	0	*	0.0	0.0	7.0			132.47		0		2,332,800			2,332,800
2004/8/10	0	0	0	*	0.0	0.0	6.5			132.43		0		2,332,800			2,332,800
2004/8/11	0	0	0	*	0.0	0.0	8.0			132.38		0		2,345,760			2,345,760
2004/8/12	0	0	0	*	0.0	0.0	7.0			132.32		0		2,350,080			2,350,080
2004/8/13	0	0	0	*	0.0	0.0	8.0			132.26		0		2,340,720			2,340,720
2004/8/14	0	0	0	*	0.0	0.0	9.5			132.20		0		2,332,800			2,332,800
2004/8/15	0	0	0	*	0.0	0.0	8.5			132.15		0		2,327,400			2,327,400
2004/8/16	0	0	0	*	0.0	0.0	10.0			132.10		0		2,289,600			2,289,600
2004/8/17	0	0	0	*	0.0	0.0	9.0			132.04		0		2,313,360			2,313,360
2004/8/18	0	0	0	*	0.0	0.0	8.8			131.98		0		2,315,520			2,315,520
2004/8/19	0	0	0	*	0.0	0.0	9.0			131.93		0		2,047,680			2,047,680
2004/8/20	0	0	0	*	0.0	0.0	8.2			131.87		0		2,047,680			2,047,680
2004/8/21	0	0	0	*	0.0	0.0	9.0			131.82		0		2,047,680			2,047,680
2004/8/22	0	0	0	*	0.0	0.0	11.0			131.77		0		2,049,120			2,049,120
2004/8/23	0	0	0	*	0.0	0.0	10.5			131.71		0		2,064,960			2,064,960
2004/8/24	0	0	0	*	0.0	0.0	11.0			131.65		0		2,010,240			2,010,240
2004/8/25	0	0	0	*	0.0	0.0	9.5			131.60		0		1,736,640			1,736,640
2004/8/26	0	0	0	*	0.0	0.0	11.0			131.55		0		1,736,640			1,736,640
2004/8/27	0	0	0	*	0.0	0.0	11.0			131.50		0		1,743,840			1,743,840
2004/8/28	0	0	0	*	0.0	0.0	10.0			131.44		0		1,745,280			1,745,280
2004/8/29	0	0	0	*	0.0	0.0	10.0			131.39		0		1,745,280			1,745,280
2004/8/30	0	0	0	*	0.0	0.0	10.0			131.34		0		1,751,400			1,751,400
2004/8/31	0	0	0	*	0.0	0.0	9.8			131.29		0		1,755,000			1,755,000
Total/Average	0	0	0	0	0.0	0.0	272.3			132.10		0		66,078,360		0.00	66,078,360

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/9/1	0	0	0	0	0.0	0.0	10.0			131.24		0		1,762,560			1,762,560
2004/9/2	0	0	0	0	0.0	0.0	10.0			131.18		0		1,762,560			1,762,560
2004/9/3	0	0	0	0	0.0	0.0	8.0			131.13		0		1,762,560			1,762,560
2004/9/4	0	0	0	0	0.0	0.0	8.0			131.07		0		1,770,120			1,770,120
2004/9/5	0	0	0	0	0.0	0.0	10.0			131.02		0		1,779,480			1,779,480
2004/9/6	0	0	0	0	0.0	0.0	11.0			130.97		0		1,779,840			1,779,840
2004/9/7	0	0	0	0	0.0	0.0	10.0			130.91		0		1,779,840			1,779,840
2004/9/8	0	0	0	0	0.0	0.0	9.0			130.86		0		1,785,960			1,785,960
2004/9/9	0	0	0	0	0.0	0.0	9.0			130.80		0		1,790,280			1,790,280
2004/9/10	0	0	0	0	0.0	0.0	10.0			130.75		0		1,797,120			1,797,120
2004/9/11	0	0	0	0	0.0	0.0	9.0			130.69		0		1,797,120			1,797,120
2004/9/12	0	0	0	0	0.0	6.0	9.0			130.64		0		1,805,400			1,805,400
2004/9/13	0	0	0	0	0.0	0.0	8.0			130.59		0		1,504,800			1,504,800
2004/9/14	0	0	0	0	0.0	0.0	8.0			130.56		0		1,128,600			1,128,600
2004/9/15	0	0	0	0	0.0	1.0	5.5			130.52		0		1,053,360			1,053,360
2004/9/16	0	2	0	0	0.5	0.0	10.0			130.51		0		0			0
2004/9/17	0	0	0	0	0.0	0.0	9.0			130.50		0		488,880			488,880
2004/9/18	0	8	0	0	2.1	0.0	9.0			130.47		0		488,880			488,880
2004/9/19	0	0	0	0	0.0	0.0	9.0			130.44		0		558,720			558,720
2004/9/20	0	0	0	0	0.0	0.0	8.5			130.43		0		977,760			977,760
2004/9/21	0	0	0	0	0.0	0.0	10.0			130.40		0		558,720			558,720
2004/9/22	0	0	0	0	0.0	0.0	9.0			130.38		0		977,760			977,760
2004/9/23	0	0	0	0	0.0	0.0	9.0			130.35		0		1,676,160			1,676,160
2004/9/24	0	15	0	0	4.0	0.0	11.0			130.33		0		1,679,040			1,679,040
2004/9/25	0	0	0	0	0.0	0.0	10.0			130.31		0		1,684,800			1,684,800
2004/9/26	0	0	0	0	0.0	0.0	9.5			130.28		0		1,684,800			1,684,800
2004/9/27	0	0	0	0	0.0	0.0	10.0			130.26		0		1,684,800			1,684,800
2004/9/28	0	0	0	0	0.0	0.0	10.0			130.23		0		1,684,800			1,684,800
2004/9/29	0	0	0	0	0.0	0.0	11.0			130.21		0		982,800			982,800
2004/9/30	0	0	0	0	0.0	0.0	10.0			130.19		0		1,684,800			1,684,800
Total/Average	0	25	0	0	6.7	7.0	279.5	#DIV/0!	#DIV/0!	130.61		0		41,872,320			41,872,320

Note : " \* " : No data is available

Wongiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wongiri Dam (mm)	Pan Evaporation at Wongiri (mm/day)	Reservoir WL			Outflow from Reservoir				Total Outflow from Reservoir			
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -waro (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/10/1	0	0	0	0	0.0	0.0	11.0			130.15		0		912,600			912,600
2004/10/2	0	0	0	0	0.0	0.0	10.0			130.13		0		848,160			848,160
2004/10/3	0	0	0	0	0.0	0.0	10.0			130.10		0		1,702,080			1,702,080
2004/10/4	0	0	0	0	0.0	0.0	10.0			130.07		0		1,998,720			1,998,720
2004/10/5	0	0	0	0	0.0	0.0	11.0			130.05		0		2,291,040			2,291,040
2004/10/6	0	0	0	0	0.0	0.0	11.5			130.02		0		1,961,640			1,961,640
2004/10/7	0	0	0	0	0.0	0.0	9.5			129.99		0		2,592,000			2,592,000
2004/10/8	0	0	0	0	0.0	0.0	9.0			129.95		0		2,592,000			2,592,000
2004/10/9	0	0	0	0	0.0	0.0	10.0			129.92		0		2,484,000			2,484,000
2004/10/10	0	0	0	0	0.0	0.0	9.0			129.88		0		1,512,000			1,512,000
2004/10/11	0	0	0	0	0.0	0.0	9.0			129.85		0		864,000			864,000
2004/10/12	0	0	0	0	0.0	0.0	10.0			129.82		0		2,295,360			2,295,360
2004/10/13	0	0	0	0	0.0	0.0	10.0			129.79		0		1,961,280			1,961,280
2004/10/14	0	0	0	0	0.0	0.0	10.0			129.75		0		2,220,480			2,220,480
2004/10/15	0	0	0	0	0.0	0.0	8.0			129.73		0		1,755,000			1,755,000
2004/10/16	0	0	0	0	0.0	0.0	11.5			129.67		0		1,987,200			1,987,200
2004/10/17	0	0	0	0	0.0	0.0	10.5			129.59		0		2,069,640			2,069,640
2004/10/18	0	0	0	0	0.0	0.0	11.0			129.51		0		2,064,960			2,064,960
2004/10/19	0	0	0	0	0.0	0.0	11.0			129.43		0		2,070,720			2,070,720
2004/10/20	0	0	0	0	0.0	0.0	8.0			129.35		0		2,073,600			2,073,600
2004/10/21	0	0	0	0	0.0	0.0	9.5			129.27		0		1,944,000			1,944,000
2004/10/22	0	0	0	0	0.0	0.0	8.5			129.20		0		1,728,000			1,728,000
2004/10/23	0	0	0	0	0.0	0.0	7.5			129.13		0		1,728,000			1,728,000
2004/10/24	0	0	0	0	0.0	0.0	7.5			129.05		0		1,728,000			1,728,000
2004/10/25	0	4	0	0	1.1	0.0	9.0			129.03		0		1,728,000			1,728,000
2004/10/26	0	10	0	0	2.7	0.0	9.0			128.99		0		187,920			187,920
2004/10/27	0	0	0	0	0.0	0.0	8.0			128.96		0		189,000			189,000
2004/10/28	0	0	0	0	0.0	0.0	10.5			128.95		0		189,000			189,000
2004/10/29	0	0	0	0	0.0	0.0	8.0			128.93		0		189,000			189,000
2004/10/30	0	0	0	0	0.0	0.0	5.5			128.92		0		189,000			189,000
2004/10/31	0	0	0	0	0.0	7.5	5.0			128.91		0		189,000			189,000
Total/Average	0	14	0	0	3.7	7.5	277.0		#DIV/0!	129.55		0		48,245,400		0.00	48,245,400

Note : " \* " : No data is available

Wonogiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbin	Electric Power (KWH)	O= (m <sup>3</sup> /s)	V=(m <sup>3</sup> )	O= (m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/1/1	0	6	*	*	1.6	0.0	8.0			128.90		0		189,000			189,000
2004/1/2	0	0	*	*	0.0	0.5	7.0			128.88		0		189,000			189,000
2004/1/3	0	0	*	*	0.0	0.0	7.5			128.87		0		190,080			190,080
2004/1/4	0	12	*	*	3.2	0.0	9.0			128.86		0		190,080			190,080
2004/1/5	0	0	*	*	0.0	0.0	9.0			128.85		0		190,080			190,080
2004/1/6	0	0	*	*	0.0	0.0	9.0			128.84		0		190,080			190,080
2004/1/7	0	0	*	*	0.0	1.9	5.0			128.87		0		190,080			190,080
2004/1/8	77	13	*	*	18.4	0.0	6.0			128.89		0		190,080			190,080
2004/1/9	50	18	*	*	14.5	11.0	5.0			128.90		0		190,080			190,080
2004/1/10	15	16	*	*	7.2	0.0	5.0			128.90		0		253,440			253,440
2004/1/11	2	8	*	*	2.5	2.5	5.0			128.90		0		190,080			190,080
2004/1/12	5	33	*	*	9.8	0.0	6.0			128.90		0		190,080			190,080
2004/1/13	0	0	*	*	0.0	0.0	7.5			128.88		0		190,080			190,080
2004/1/14	0	0	*	*	0.0	0.0	7.0			128.87		0		190,080			190,080
2004/1/15	0	0	*	*	0.0	0.0	8.0			128.86		0		190,080			190,080
2004/1/16	0	0	*	*	0.0	0.0	7.0			128.85		0		190,080			190,080
2004/1/17	0	0	*	*	0.0	1.0	7.0			128.83		0		190,080			190,080
2004/1/18	0	0	*	*	0.0	0.0	8.0			128.80		0		190,080			190,080
2004/1/19	0	0	*	*	0.0	10.0	4.0			128.80		0		190,080			190,080
2004/1/20	0	12	*	*	3.2	0.0	6.0			128.82		0		190,080			190,080
2004/1/21	0	0	*	*	0.0	16.0	3.0			128.82		0		190,080			190,080
2004/1/22	0	1	*	*	0.3	10.5	3.0			128.83		0		190,080			190,080
2004/1/23	5	0	*	*	1.0	5.5	1.0			128.87		0		190,080			190,080
2004/1/24	26	18	*	*	9.9	0.5	2.5			128.90		0		190,080			190,080
2004/1/25	20	1	*	*	4.1	12.5	2.0			128.96		0		63,360			63,360
2004/1/26	26	34	*	*	14.1	22.5	1.5			129.12		0		0			0
2004/1/27	20	45	*	*	15.9	14.0	2.0			129.21		0		0			0
2004/1/28	15	2	*	*	3.4	6.0	2.0			129.26		0		0			0
2004/1/29	9	16	*	*	6.0	5.5	1.5			129.31		0		0			0
2004/1/30	10	18	*	*	6.7	5.1	3.0			129.85		0		126,720			126,720
Total/Average	280	253	0	0	121.9	125.0	157.5	#DIV/0!	#DIV/0!	128.95	0	0	0	4,813,200	0	0	4,813,200

Note : "\*" : No data is available

Wonggiri Dam Operation Data Record in 2004

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonggiri Dam (mm)	Pan Evaporation at Wonggiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warjo (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2004/12/1	*	54	*	*	14.4	7.0	2.0			130.26		0		0			0
2004/12/2	*	10	*	*	2.7	39.0	1.0			130.61		0		414,720			414,720
2004/12/3	*	89	*	*	23.8	31.0	0.3			131.30		0		356,400			356,400
2004/12/4	*	29	*	*	7.7	0.0	2.0			132.34		0		964,440			964,440
2004/12/5	*	1	*	*	0.3	0.0	3.5			132.50		0		1,996,560			1,996,560
2004/12/6	*	0	*	*	0.0	0.0	5.0			132.58		0		1,581,840			1,581,840
2004/12/7	*	3	*	*	0.8	0.0	4.0			132.60		0		1,715,760			1,715,760
2004/12/8	*	15	*	*	4.0	1.0	3.0			132.60		0		1,824,480			1,824,480
2004/12/9	*	0	*	*	0.0	0.0	5.5			132.59		0		3,300,480			3,300,480
2004/12/10	*	0	*	*	0.0	0.0	7.0			132.54		0		3,615,840			3,615,840
2004/12/11	*	0	*	*	0.0	0.0	5.5			132.45		0		3,628,800			3,628,800
2004/12/12	*	29	*	*	7.7	10.0	5.0			132.41		0		3,643,200			3,643,200
2004/12/13	*	6	*	*	1.6	0.0	7.0			132.36		0		3,668,400			3,668,400
2004/12/14	*	0	*	*	0.0	0.0	4.5			132.30		0		3,690,720			3,690,720
2004/12/15	*	9	*	*	2.4	6.0	5.0			132.22		0		3,407,040			3,407,040
2004/12/16	*	14	*	*	3.7	10.0	4.0			132.24		0		1,913,040			1,913,040
2004/12/17	*	0	*	*	0.0	1.0	3.0			132.22		0		2,476,800			2,476,800
2004/12/18	*	1	*	*	0.3	3.0	5.0			132.20		0		3,537,000			3,537,000
2004/12/19	*	32	*	*	8.5	2.0	4.0			132.20		0		2,289,600			2,289,600
2004/12/20	*	6	*	*	1.6	1.0	3.5			132.17		0		1,942,200			1,942,200
2004/12/21	*	16	*	*	4.3	4.0	2.5			132.16		0		3,728,160			3,728,160
2004/12/22	*	1	*	*	0.3	1.5	2.0			132.17		0		3,749,760			3,749,760
2004/12/23	*	1	*	*	0.3	9.5	2.0			132.18		0		3,749,760			3,749,760
2004/12/24	*	22	*	*	5.9	0.5	3.0			132.33		0		3,749,760			3,749,760
2004/12/25	*	27	*	*	7.2	113.5	1.0			132.46		0		2,742,480			2,742,480
2004/12/26	*	49	*	*	13.1	2.5	3.0			132.82		0		0			0
2004/12/27	*	0	*	*	0.0	3.0	1.0			132.96		0		0			0
2004/12/28	*	19	*	*	5.1	1.0	1.5			133.29		0		1,110,960			1,110,960
2004/12/29	*	1	*	*	0.3	6.0	4.0			133.37		0		2,872,800			2,872,800
2004/12/30	*	6	*	*	1.6	0.0	4.0			133.45		0		3,868,560			3,868,560
2004/12/31	*	0	*	*	0.0	0.5	4.0			133.42		0		4,757,760			4,757,760
Total/Average	0	440	0	0	117.5	315.5	103.8	#DIV/0!	#DIV/0!	132.33		0		71,539,560		0.00	71,539,560

Note : \* \* \* : No data is available



**Wonogiri Dam Operation Data Record in 2005**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/1/1	*	*	*	*	*	0.0	4.0			133.37		0		5,425,920			5,425,920
2005/1/2	*	*	*	*	*	0.0	4.0			133.26		0		5,529,600			5,529,600
2005/1/3	*	*	*	*	*	0.0	5.0			133.17		0		5,564,160			5,564,160
2005/1/4	*	*	*	*	*	0.0	4.0			133.07		0		5,564,160			5,564,160
2005/1/5	*	*	*	*	*	9.0	2.0			133.00		0		4,788,360			4,788,360
2005/1/6	*	11	*	*	2.9	0.0	4.0			133.09		0		2,484,720			2,484,720
2005/1/7	*	5	*	*	1.3	8.5	7.0			133.01		0		5,633,280			5,633,280
2005/1/8	*	1	*	*	0.3	0.0	4.0			132.97		0		5,633,280			5,633,280
2005/1/9	*	*	*	*	*	0.0	5.0			132.91		0		5,659,200			5,659,200
2005/1/10	*	*	*	*	*	0.0	6.1			132.80		0		4,793,400			4,793,400
2005/1/11	*	*	*	*	*	0.0	6.0			132.74		0		2,669,760			2,669,760
2005/1/12	*	*	*	*	*	7.0	3.0			132.68		0		2,671,200			2,671,200
2005/1/13	*	*	*	*	*	0.0	1.0			132.65		0		2,671,920			2,671,920
2005/1/14	*	6	*	*	1.6	0.0	4.5			132.63		0		2,671,200			2,671,200
2005/1/15	*	*	*	*	*	0.0	4.0			132.58		0		2,678,400			2,678,400
2005/1/16	*	*	*	*	*	6.5	2.0			132.53		0		2,678,400			2,678,400
2005/1/17	*	6	*	*	1.6	20.5	2.0			132.53		0		2,678,400			2,678,400
2005/1/18	*	4	*	*	1.1	41.0	2.0			132.54		0		2,678,400			2,678,400
2005/1/19	*	9	*	*	2.4	9.5	3.0			132.56		0		2,678,400			2,678,400
2005/1/20	*	5	*	*	1.3	1.0	2.0			132.57		0		2,678,400			2,678,400
2005/1/21	*	2	*	*	0.5	54.0	2.0			132.57		0		2,678,400			2,678,400
2005/1/22	*	43	*	*	11.5	9.0	1.5			132.82		0		2,666,160			2,666,160
2005/1/23	*	*	*	*	*	14.0	2.0			132.98		0		2,654,640			2,654,640
2005/1/24	*	*	*	*	*	5.0	1.0			133.15		0		2,643,840			2,643,840
2005/1/25	*	*	*	*	*	2.5	0.5			133.21		0		2,525,040			2,525,040
2005/1/26	*	14	*	*	3.7	0.0	2.0			133.30		0		2,073,600			2,073,600
2005/1/27	*	*	*	*	*	0.0	3.0			133.30		0		2,073,600			2,073,600
2005/1/28	*	3	*	*	0.8	2.5	0.6			133.29		0		2,131,920			2,131,920
2005/1/29	*	5	*	*	1.3	7.0	1.5			133.36		0		2,073,600			2,073,600
2005/1/30	*	6	*	*	1.6	2.5	1.5			133.40		0		2,073,600			2,073,600
2005/1/31	*	15	*	*	4.0	0.5	3.0			133.43		0		2,073,600			2,073,600
Total/Average	0	135	0	0	36.0	200.0	93.2	#DIV/0!	#DIV/0!	132.95		0		103,498,560		0.00	103,498,560

Note : \* \* \* \* : No data is available

**Wonogiri Dam Operation Data Record in 2005**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/2/1	*	1	*	*	0.3	0.0	4.0			133.46		0		2,073,600			2,073,600
2005/2/2	*	0	*	*	0.0	0.0	5.0			133.44		0		2,073,600			2,073,600
2005/2/3	*	0	*	*	0.0	0.0	3.5			133.41		0		2,073,600			2,073,600
2005/2/4	*	13	*	*	3.5	0.0	5.5			133.39		0		2,073,600			2,073,600
2005/2/5	*	0	*	*	0.0	0.0	4.0			133.37		0		2,086,560			2,086,560
2005/2/6	*	0	*	*	0.0	0.0	4.0			133.34		0		2,090,880			2,090,880
2005/2/7	*	0	*	*	0.0	6.0	2.0			133.29		0		2,090,880			2,090,880
2005/2/8	*	0	*	*	0.0	13.0	4.0			133.26		0		2,093,040			2,093,040
2005/2/9	*	12	*	*	3.2	4.0	2.5			133.24		0		2,099,520			2,099,520
2005/2/10	*	15	*	*	4.0	1.0	2.5			133.24		0		2,099,520			2,099,520
2005/2/11	*	5	*	*	1.3	10.0	2.0			133.27		0		2,099,520			2,099,520
2005/2/12	*	6	*	*	1.6	1.0	2.5			133.34		0		2,099,520			2,099,520
2005/2/13	*	0	*	*	0.0	10.0	2.5			133.37		0		2,091,240			2,091,240
2005/2/14	*	2	*	*	0.5	3.5	3.0			133.37		0		2,090,880			2,090,880
2005/2/15	*	1	*	*	0.3	3.5	2.0			133.42		0		1,656,360			1,656,360
2005/2/16	*	0	*	*	0.0	0.0	4.0			133.45		0		1,477,440			1,477,440
2005/2/17	*	25	*	*	6.7	0.0	3.0			133.44		0		1,477,440			1,477,440
2005/2/18	*	41	*	*	10.9	0.0	3.0			133.47		0		1,477,440			1,477,440
2005/2/19	*	1	*	*	0.3	0.0	3.5			133.49		0		1,477,440			1,477,440
2005/2/20	*	0	*	*	0.0	0.0	3.0			133.54		0		1,477,440			1,477,440
2005/2/21	*	1	*	*	0.3	1.5	2.0			133.70		0		1,468,800			1,468,800
2005/2/22	*	50	*	*	13.4	5.5	2.0			133.80		0		1,468,800			1,468,800
2005/2/23	*	15	*	*	4.0	4.0	2.0			133.90		0		1,486,080			1,486,080
2005/2/24	*	62	*	*	16.6	20.5	2.0			134.00		0		1,494,720			1,494,720
2005/2/25	*	2	*	*	0.5	0.5	4.0			134.01		0		1,494,720			1,494,720
2005/2/26	*	0	*	*	0.0	1.0	2.0			134.03		0		1,486,080			1,486,080
2005/2/27	*	65	*	*	17.4	0.5	2.0			134.12		0		1,486,080			1,486,080
2005/2/28	*	23	*	*	6.1	0.0	5.0			134.18		0		1,176,480			1,176,480
Total/Average	0	340	0	0	90.8	85.5	86.5	#DIV/0!	#DIV/0!	133.55	0	0	0	49,841,280	0.00	0	49,841,280

Note : "\*" : No data is available

Wongiri Dam Operation Data Record in 2005

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wongiri Dam (mm)	Pan Evaporation at Wongiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/3/1	*	1	*	*	0.3	0.0	6.0			134.19		0		743,040			743,040
2005/3/2	*	3	*	*	0.8	0.0	6.0			134.20		0		743,040			743,040
2005/3/3	*	21	*	*	5.6	4.5	4.0			134.23		0		743,040			743,040
2005/3/4	*	6	*	*	1.6	1.5	3.0			134.29		0		740,880			740,880
2005/3/5	*	13	*	*	3.5	44.5	1.5			134.33		0		738,720			738,720
2005/3/6	*	11	*	*	2.9	17.5	2.0			134.52		0		738,720			738,720
2005/3/7	*	47	*	*	12.5	24.5	3.0			134.64		0		738,720			738,720
2005/3/8	*	0	*	*	0.0	0.0	3.0			134.69		0		738,720			738,720
2005/3/9	*	7	*	*	1.9	0.0	3.0			134.70		0		738,720			738,720
2005/3/10	*	0	*	*	0.0	0.0	4.0			134.71		0		738,720			738,720
2005/3/11	*	0	*	*	0.0	0.5	3.5			134.71		0		738,720			738,720
2005/3/12	*	10	*	*	2.7	17.0	6.0			134.74		0		736,560			736,560
2005/3/13	*	0	*	*	0.0	0.5	3.0			134.82		0		734,400			734,400
2005/3/14	*	71	*	*	19.0	9.0	3.8			135.23		0		786,240			786,240
2005/3/15	*	0	*	*	0.0	0.0	4.5			135.33		0		786,240			786,240
2005/3/16	*	0	*	*	0.0	0.0	4.0			135.39		0		786,240			786,240
2005/3/17	*	0	*	*	0.0	0.0	4.0			135.40		0		786,240			786,240
2005/3/18	*	0	*	*	0.0	0.0	6.0			135.39		0		786,240			786,240
2005/3/19	*	0	*	*	0.0	0.0	4.0			135.39		0		786,240			786,240
2005/3/20	*	0	*	*	0.0	0.0	5.0			135.37		0		786,240			786,240
2005/3/21	*	0	*	*	0.0	1.5	4.0			135.37		0		786,240			786,240
2005/3/22	*	33	*	*	8.8	0.0	3.0			135.39		0		786,240			786,240
2005/3/23	*	54	*	*	14.4	0.0	3.5			135.40		0		786,240			786,240
2005/3/24	*	8	*	*	2.1	0.0	4.0			135.44		0		786,240			786,240
2005/3/25	*	5	*	*	1.3	2.5	3.5			135.45		0		781,560			781,560
2005/3/26	*	2	*	*	0.5	10.0	3.0			135.45		0		781,560			781,560
2005/3/27	*	25	*	*	6.7	57.0	1.0			135.50		0		819,000			819,000
2005/3/28	*	11	*	*	2.9	11.0	3.0			135.59		0		804,960			804,960
2005/3/29	*	32	*	*	8.5	16.5	2.0			135.71		0		804,960			804,960
2005/3/30	*	1	*	*	0.3	57.0	2.5			135.81		0		804,960			804,960
2005/3/31	*	1	*	*	0.3	0.0	2.5			135.90		0		804,960			804,960
Total/Average	0	362	0	0	96.7	275.0	111.3	#DIV/0!	#DIV/0!	135.07		0		23,862,600		0.00	23,862,600

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2005

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman (mm)	Jatisro (mm)	Batu (mm)				Tirto (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/4/1	*	28	*	*	7.5	10.5	2.0			136.24		0		928,800			928,800
2005/4/2	*	27	*	*	7.2	3.5	2.0			136.45		0		1,473,840			1,473,840
2005/4/3	*	3	*	*	0.8	5.5	2.0			136.51		0		1,468,800			1,468,800
2005/4/4	*	29	*	*	7.7	7.0	4.0			136.64		0		1,520,280			1,520,280
2005/4/5	*	28	*	*	7.5	1.5	3.0			136.92		0		2,733,840			2,733,840
2005/4/6	*	1	*	*	0.3	2.0	4.0			136.95		0		4,769,280			4,769,280
2005/4/7	*	0	*	*	0.0	1.0	4.0			136.97		0		4,769,280			4,769,280
2005/4/8	*	10	*	*	2.7	12.5	3.0			136.96		0		4,778,640			4,778,640
2005/4/9	*	0	*	*	0.0	0.0	5.0			136.95		0		4,786,560			4,786,560
2005/4/10	*	0	*	*	0.0	0.0	5.0			136.91		0		4,847,040			4,847,040
2005/4/11	*	2	*	*	0.5	0.5	3.0			136.87		0		4,907,520			4,907,520
2005/4/12	*	0	*	*	0.0	0.0	2.0			136.81		0		4,907,520			4,907,520
2005/4/13	*	0	*	*	0.0	5.0	2.5			136.78		0		3,287,520			3,287,520
2005/4/14	*	27	*	*	7.2	1.5	2.5			136.81		0		2,315,520			2,315,520
2005/4/15	*	6	*	*	1.6	0.0	4.0			136.85		0		2,315,520			2,315,520
2005/4/16	*	0	*	*	0.0	11.5	2.0			136.84		0		2,315,520			2,315,520
2005/4/17	*	7	*	*	1.9	0.0	4.5			136.85		0		2,315,520			2,315,520
2005/4/18	*	1	*	*	0.3	11.5	2.5			136.85		0		2,315,520			2,315,520
2005/4/19	*	1	*	*	0.3	0.0	3.0			136.87		0		2,244,960			2,244,960
2005/4/20	*	0	*	*	0.0	16.0	2.5			136.87		0		1,468,800			1,468,800
2005/4/21	*	0	*	*	0.0	0.5	2.5			136.90		0		1,468,800			1,468,800
2005/4/22	*	0	*	*	0.0	0.0	3.0			136.89		0		1,468,800			1,468,800
2005/4/23	*	0	*	*	0.0	0.0	4.0			136.87		0		1,468,800			1,468,800
2005/4/24	*	0	*	*	0.0	0.5	3.5			136.84		0		1,468,800			1,468,800
2005/4/25	*	0	*	*	0.0	0.0	4.0			136.82		0		1,468,800			1,468,800
2005/4/26	*	0	*	*	0.0	0.0	4.0			136.81		0		1,468,800			1,468,800
2005/4/27	*	0	*	*	0.0	0.0	4.0			136.79		0		1,468,800			1,468,800
2005/4/28	*	0	*	*	0.0	0.0	3.0			136.77		0		1,468,800			1,468,800
2005/4/29	*	0	*	*	0.0	0.5	3.0			136.76		0		1,468,800			1,468,800
2005/4/30	*	0	*	*	0.0	0.0	2.0			136.74		0		1,468,800			1,468,800
Total/Average	0	170	0	0	45.4	91.0	95.5	#DIV/0!	#DIV/0!	136.80		0		75,158,280			75,158,280

Note : " \* " : No data is available

Wonggiri Dam Operation Data Record in 2005

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonggiri Dam (mm)	Pan Evaporation at Wonggiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway		Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/5/1	*	0	*	*	0.0	0.0	3.5			136.72		0		1,468,800			1,468,800
2005/5/2	*	0	*	*	0.0	0.0	4.0			136.70		0		1,625,040			1,625,040
2005/5/3	*	0	*	*	0.0	0.0	3.0			136.68		0		2,004,480			2,004,480
2005/5/4	*	0	*	*	0.0	3.0	3.0			136.65		0		2,004,480			2,004,480
2005/5/5	*	0	*	*	0.0	0.0	3.5			136.63		0		2,004,480			2,004,480
2005/5/6	*	0	*	*	0.0	0.0	3.0			136.60		0		2,004,480			2,004,480
2005/5/7	*	9	*	*	2.4	0.0	4.0			136.58		0		2,004,480			2,004,480
2005/5/8	*	0	*	*	0.0	0.0	4.0			136.55		0		2,004,480			2,004,480
2005/5/9	*	0	*	*	0.0	0.0	4.5			136.50		0		2,013,120			2,013,120
2005/5/10	*	0	*	*	0.0	0.0	3.0			136.49		0		2,013,120			2,013,120
2005/5/11	*	0	*	*	0.0	0.0	5.0			136.46		0		2,013,120			2,013,120
2005/5/12	*	0	*	*	0.0	0.0	6.0			136.42		0		2,016,720			2,016,720
2005/5/13	*	0	*	*	0.0	0.0	6.0			136.41		0		2,030,400			2,030,400
2005/5/14	*	0	*	*	0.0	0.0	5.0			136.38		0		2,030,400			2,030,400
2005/5/15	*	0	*	*	0.0	0.0	3.0			136.34		0		2,030,400			2,030,400
2005/5/16	*	0	*	*	0.0	0.0	3.5			136.31		0		2,030,400			2,030,400
2005/5/17	*	0	*	*	0.0	0.0	6.0			136.28		0		2,183,400			2,183,400
2005/5/18	*	0	*	*	0.0	0.0	5.0			136.25		0		2,246,400			2,246,400
2005/5/19	*	0	*	*	0.0	0.0	5.0			136.21		0		2,246,400			2,246,400
2005/5/20	*	0	*	*	0.0	0.0	6.0			136.18		0		2,246,400			2,246,400
2005/5/21	*	0	*	*	0.0	0.0	5.0			136.15		0		2,246,400			2,246,400
2005/5/22	*	0	*	*	0.0	1.0	4.0			136.12		0		2,250,360			2,250,360
2005/5/23	*	0	*	*	0.0	0.0	3.5			136.08		0		2,255,040			2,255,040
2005/5/24	*	0	*	*	0.0	1.5	3.0			136.05		0		2,255,040			2,255,040
2005/5/25	*	0	*	*	0.0	0.0	5.0			136.02		0		2,255,040			2,255,040
2005/5/26	*	0	*	*	0.0	0.0	5.0			135.99		0		2,261,880			2,261,880
2005/5/27	*	0	*	*	0.0	0.0	5.5			135.95		0		2,263,680			2,263,680
2005/5/28	*	0	*	*	0.0	0.0	4.5			135.92		0		2,263,680			2,263,680
2005/5/29	*	0	*	*	0.0	0.0	6.0			135.88		0		2,268,720			2,268,720
2005/5/30	*	0	*	*	0.0	0.0	6.0			135.84		0		2,499,120			2,499,120
2005/5/31	*	0	*	*	0.0	0.0	5.0			135.80		0		2,559,600			2,559,600
Total/Average	0	9	0	0	2.4	5.5	138.5	#DIV/0!	#DIV/0!	136.29		0		65,599,560		0.00	65,599,560

Note : \* \* \* : No data is available

Wonogiri Dam Operation Data Record in 2005

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/6/1	*	0	*	*	0.0	0.0	4.5			135.76		0		2,557,440			2,557,440
2005/6/2	*	0	*	*	0.0	0.0	5.0			135.72		0		2,376,000			2,376,000
2005/6/3	*	0	*	*	0.0	0.0	4.0			135.68		0		2,531,520			2,531,520
2005/6/4	*	0	*	*	0.0	0.0	5.0			135.63		0		2,557,440			2,557,440
2005/6/5	*	1	*	*	0.3	0.0	5.0			135.58		0		2,384,640			2,384,640
2005/6/6	*	0	*	*	0.0	0.5	6.0			135.54		0		2,393,280			2,393,280
2005/6/7	*	0	*	*	0.0	0.0	5.0			135.49		0		2,393,280			2,393,280
2005/6/8	*	0	*	*	0.0	0.0	7.0			135.46		0		2,401,920			2,401,920
2005/6/9	*	0	*	*	0.0	0.0	8.0			135.41		0		2,401,920			2,401,920
2005/6/10	*	0	*	*	0.0	0.0	6.0			135.37		0		2,401,920			2,401,920
2005/6/11	*	0	*	*	0.0	0.0	8.0			135.32		0		2,669,760			2,669,760
2005/6/12	*	0	*	*	0.0	0.0	8.5			135.28		0		2,669,760			2,669,760
2005/6/13	*	0	*	*	0.0	0.0	7.0			135.23		0		2,669,760			2,669,760
2005/6/14	*	0	*	*	0.0	0.0	7.5			135.18		0		2,669,760			2,669,760
2005/6/15	*	0	*	*	0.0	0.0	7.0			135.13		0		2,678,400			2,678,400
2005/6/16	*	1	*	*	0.3	0.5	5.0			135.09		0		2,419,200			2,419,200
2005/6/17	*	1	*	*	0.3	0.0	10.0			135.06		0		2,419,200			2,419,200
2005/6/18	*	0	*	*	0.0	0.0	10.0			135.01		0		2,436,480			2,436,480
2005/6/19	*	0	*	*	0.0	0.0	5.0			134.97		0		2,436,480			2,436,480
2005/6/20	*	8	*	*	2.1	19.0	5.0			134.93		0		2,436,480			2,436,480
2005/6/21	*	45	*	*	12.0	0.5	2.0			134.94		0		2,436,480			2,436,480
2005/6/22	*	0	*	*	0.0	6.0	3.0			135.15		0		2,436,480			2,436,480
2005/6/23	*	13	*	*	3.5	0.0	3.5			135.18		0		1,952,640			1,952,640
2005/6/24	*	37	*	*	9.9	0.0	6.5			135.19		0		1,952,640			1,952,640
2005/6/25	*	0	*	*	0.0	6.0	4.0			135.18		0		1,952,640			1,952,640
2005/6/26	*	0	*	*	0.0	0.5	4.0			135.16		0		1,952,640			1,952,640
2005/6/27	*	0	*	*	0.0	1.0	5.0			135.14		0		1,952,640			1,952,640
2005/6/28	*	23	*	*	6.1	0.0	4.0			135.17		0		1,952,640			1,952,640
2005/6/29	*	7	*	*	1.9	0.0	4.0			135.18		0		1,952,640			1,952,640
2005/6/30	*	0	*	*	0.0	0.0	4.0			135.16		0		1,952,640			1,952,640
Total/Average	0	136	0	0	36.3	34.0	168.5	#DIV/0!	#DIV/0!	135.28		0		70,398,720			70,398,720

Note : "\*" : No data is available

**Wonogiri Dam Operation Data Record in 2005**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman (mm)	Jatisro (mm)	Batu-warno (mm)				Tirto-moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/7/1	*	0	*	*	0.0	0.0	7.0			135.14		0		1,952,640			1,952,640
2005/7/2	*	0	*	*	0.0	0.0	7.5			135.12		0		1,952,640			1,952,640
2005/7/3	*	0	*	*	0.0	0.0	7.0			135.09		0		1,952,640			1,952,640
2005/7/4	*	0	*	*	0.0	0.0	6.0			135.05		0		1,952,640			1,952,640
2005/7/5	*	0	*	*	0.0	0.0	5.0			135.02		0		1,952,640			1,952,640
2005/7/6	*	13	*	*	3.5	20.5	5.0			134.98		0		1,952,640			1,952,640
2005/7/7	*	21	*	*	5.6	0.0	4.0			134.99		0		1,952,640			1,952,640
2005/7/8	*	1	*	*	0.3	0.0	4.0			135.00		0		1,952,640			1,952,640
2005/7/9	*	0	*	*	0.0	0.0	6.0			134.98		0		1,952,640			1,952,640
2005/7/10	*	0	*	*	0.0	0.0	6.0			134.96		0		1,952,640			1,952,640
2005/7/11	*	4	*	*	1.1	11.5	5.0			134.95		0		1,952,640			1,952,640
2005/7/12	*	0	*	*	0.0	0.0	4.0			135.02		0		1,952,640			1,952,640
2005/7/13	*	3	*	*	0.8	0.0	5.0			135.06		0		1,952,640			1,952,640
2005/7/14	*	0	*	*	0.0	0.0	5.0			135.04		0		1,952,640			1,952,640
2005/7/15	*	0	*	*	0.0	0.0	6.0			135.01		0		1,952,640			1,952,640
2005/7/16	*	0	*	*	0.0	0.0	6.5			134.98		0		1,952,640			1,952,640
2005/7/17	*	3	*	*	0.8	1.0	4.0			134.95		0		1,952,640			1,952,640
2005/7/18	*	0	*	*	0.0	0.0	6.0			134.93		0		1,952,640			1,952,640
2005/7/19	*	0	*	*	0.0	0.0	8.0			134.90		0		1,952,640			1,952,640
2005/7/20	*	0	*	*	0.0	0.0	8.0			134.87		0		2,453,760			2,453,760
2005/7/21	*	0	*	*	0.0	0.0	9.0			134.83		0		2,462,400			2,462,400
2005/7/22	*	0	*	*	0.0	0.0	9.0			134.79		0		2,462,400			2,462,400
2005/7/23	*	0	*	*	0.0	0.0	9.0			134.75		0		2,471,040			2,471,040
2005/7/24	*	0	*	*	0.0	0.0	7.5			134.71		0		2,471,040			2,471,040
2005/7/25	*	0	*	*	0.0	0.0	9.0			134.66		0		2,471,040			2,471,040
2005/7/26	*	0	*	*	0.0	0.0	9.0			134.61		0		2,471,040			2,471,040
2005/7/27	*	0	*	*	0.0	0.0	9.0			134.57		0		2,479,680			2,479,680
2005/7/28	*	0	*	*	0.0	0.0	9.0			134.52		0		2,479,680			2,479,680
2005/7/29	*	0	*	*	0.0	0.0	10.0			134.47		0		2,479,680			2,479,680
2005/7/30	*	0	*	*	0.0	0.0	9.0			134.44		0		2,488,320			2,488,320
2005/7/31	*	0	*	*	0.0	0.0	8.0			134.39		0		2,488,320			2,488,320
<b>Total/Average</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>12.0</b>	<b>33.0</b>	<b>212.5</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>134.86</b>		<b>0</b>		<b>66,778,560</b>	<b>0.00</b>		<b>66,778,560</b>

Note : \* \* \* : No data is available

**Wongiri Dam Operation Data Record in 2005**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wongiri Dam (mm)	Pan Evaporation at Wongiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/8/1	*	0	*	*	0.0	0.0	7.0			134.34		0		2,496,960			2,496,960
2005/8/2	*	0	*	*	0.0	0.0	7.5			134.29		0		2,505,600			2,505,600
2005/8/3	*	10	*	*	2.7	0.0	9.0			134.24		0		2,507,040			2,507,040
2005/8/4	*	0	*	*	0.0	0.0	11.0			134.19		0		2,514,240			2,514,240
2005/8/5	*	0	*	*	0.0	0.0	11.0			134.14		0		2,514,240			2,514,240
2005/8/6	*	0	*	*	0.0	0.0	10.0			134.08		0		2,520,360			2,520,360
2005/8/7	*	0	*	*	0.0	0.0	9.3			134.04		0		2,522,880			2,522,880
2005/8/8	*	0	*	*	0.0	0.0	9.0			133.98		0		2,527,920			2,527,920
2005/8/9	*	0	*	*	0.0	0.0	9.0			133.94		0		2,531,520			2,531,520
2005/8/10	*	0	*	*	0.0	0.0	11.0			133.87		0		2,536,560			2,536,560
2005/8/11	*	0	*	*	0.0	0.0	9.5			133.82		0		2,548,800			2,548,800
2005/8/12	*	0	*	*	0.0	0.0	9.0			133.77		0		2,548,800			2,548,800
2005/8/13	*	0	*	*	0.0	0.0	9.3			133.72		0		2,548,800			2,548,800
2005/8/14	*	0	*	*	0.0	0.0	11.5			133.67		0		2,572,560			2,572,560
2005/8/15	*	0	*	*	0.0	0.0	9.0			133.62		0		2,574,720			2,574,720
2005/8/16	*	0	*	*	0.0	0.0	9.0			133.56		0		2,580,120			2,580,120
2005/8/17	*	3	*	*	0.8	0.0	8.0			133.50		0		2,583,360			2,583,360
2005/8/18	*	0	*	*	0.0	0.0	11.0			133.46		0		2,586,240			2,586,240
2005/8/19	*	0	*	*	0.0	0.0	11.0			133.40		0		2,592,000			2,592,000
2005/8/20	*	0	*	*	0.0	0.0	13.0			133.34		0		2,592,000			2,592,000
2005/8/21	*	3	*	*	0.8	0.0	10.5			133.29		0		2,599,200			2,599,200
2005/8/22	*	1	*	*	0.3	0.0	10.5			133.23		0		2,600,640			2,600,640
2005/8/23	*	0	*	*	0.0	0.0	11.5			133.18		0		2,600,640			2,600,640
2005/8/24	*	0	*	*	0.0	0.0	12.5			133.13		0		2,624,400			2,624,400
2005/8/25	*	0	*	*	0.0	0.0	10.0			133.08		0		2,626,560			2,626,560
2005/8/26	*	0	*	*	0.0	0.0	11.5			133.02		0		2,629,800			2,629,800
2005/8/27	*	0	*	*	0.0	0.0	11.0			132.97		0		2,635,200			2,635,200
2005/8/28	*	0	*	*	0.0	0.0	11.0			132.90		0		2,635,200			2,635,200
2005/8/29	*	0	*	*	0.0	0.0	11.0			132.84		0		2,330,280			2,330,280
2005/8/30	*	0	*	*	0.0	0.0	11.0			132.79		0		2,142,720			2,142,720
2005/8/31	*	0	*	*	0.0	0.0	14.0			132.74		0		2,142,720			2,142,720
<b>Total/Average</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>4.5</b>	<b>0.0</b>	<b>318.6</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>133.55</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>78,472,080</b>	<b>0.00</b>	<b>0</b>	<b>78,472,080</b>

Note : \* \* \* : No data is available



**Wonogiri Dam Operation Data Record in 2005**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/9/1	*	0	*	*	0.0	0.0	13.0			132.69		0		2,385,360			2,385,360
2005/9/2	*	0	*	*	0.0	0.0	11.5			132.62		0		2,675,160			2,675,160
2005/9/3	*	0	*	*	0.0	0.0	15.0			132.55		0		2,678,400			2,678,400
2005/9/4	*	0	*	*	0.0	0.0	11.0			132.48		0		2,683,440			2,683,440
2005/9/5	*	0	*	*	0.0	0.0	11.0			132.41		0		2,317,680			2,317,680
2005/9/6	*	0	*	*	0.0	0.0	11.0			132.36		0		2,090,880			2,090,880
2005/9/7	*	0	*	*	0.0	0.0	11.5			132.32		0		2,090,880			2,090,880
2005/9/8	*	0	*	*	0.0	15.0	11.8			132.30		0		1,393,920			1,393,920
2005/9/9	*	0	*	*	0.0	0.0	10.0			132.24		0		2,098,800			2,098,800
2005/9/10	*	0	*	*	0.0	0.0	9.3			132.21		0		2,108,160			2,108,160
2005/9/11	*	0	*	*	0.0	19.0	10.0			132.15		0		2,110,680			2,110,680
2005/9/12	*	0	*	*	0.0	5.5	10.0			132.09		0		2,116,800			2,116,800
2005/9/13	*	0	*	*	0.0	1.5	9.0			132.02		0		2,116,800			2,116,800
2005/9/14	*	0	*	*	0.0	0.0	10.0			132.02		0		2,359,440			2,359,440
2005/9/15	*	0	*	*	0.0	0.0	12.5			131.97		0		2,406,240			2,406,240
2005/9/16	*	0	*	*	0.0	0.0	10.0			131.91		0		2,406,240			2,406,240
2005/9/17	*	0	*	*	0.0	0.0	12.0			131.87		0		2,419,200			2,419,200
2005/9/18	*	6	*	*	1.6	12.0	11.0			131.77		0		2,435,760			2,435,760
2005/9/19	*	0	*	*	0.0	1.5	8.0			131.71		0		2,445,120			2,445,120
2005/9/20	*	0	*	*	0.0	0.0	4.0			131.69		0		2,458,080			2,458,080
2005/9/21	*	5	*	*	1.3	0.0	5.0			131.64		0		2,462,400			2,462,400
2005/9/22	*	0	*	*	0.0	0.0	6.5			131.58		0		2,471,040			2,471,040
2005/9/23	*	0	*	*	0.0	0.0	5.0			131.53		0		2,479,680			2,479,680
2005/9/24	*	0	*	*	0.0	0.0	8.0			131.44		0		2,484,000			2,484,000
2005/9/25	*	0	*	*	0.0	0.0	10.0			131.37		0		2,484,000			2,484,000
2005/9/26	*	0	*	*	0.0	0.0	7.5			131.31		0		2,113,200			2,113,200
2005/9/27	*	0	*	*	0.0	0.0	6.5			131.24		0		1,909,440			1,909,440
2005/9/28	*	0	*	*	0.0	0.0	7.0			131.20		0		1,924,560			1,924,560
2005/9/29	*	14	*	*	3.7	0.0	7.5			131.16		0		2,518,560			2,518,560
2005/9/30	*	2	*	*	0.5	0.0	10.0			131.12		0		2,518,560			2,518,560
Total/Average	0	27	0	0	7.2	54.5	283.6	#DIV/0!	#DIV/0!	131.87		0		69,162,480			69,162,480

Note : " \* " : No data is available

Wongiri Dam Operation Data Record in 2005

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wongiri Dam (mm)	Pan Evaporation at Wongiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/10/1	*	0	*	*	0.0	0.0	10.0			130.97		0		2,535,120			2,535,120
2005/10/2	*	0	*	*	0.0	0.0	11.0			130.89		0		2,535,840			2,535,840
2005/10/3	*	0	*	*	0.0	0.0	11.5			130.82		0		2,516,400			2,516,400
2005/10/4	*	0	*	*	0.0	0.0	12.0			130.74		0		2,492,640			2,492,640
2005/10/5	*	0	*	*	0.0	0.0	15.0			130.67		0		2,540,160			2,540,160
2005/10/6	*	0	*	*	0.0	0.0	1.5			130.60		0		884,160			884,160
2005/10/7	*	0	*	*	0.0	0.0	13.0			130.58		0		865,080			865,080
2005/10/8	*	0	*	*	0.0	0.0	12.0			130.55		0		756,000			756,000
2005/10/9	*	0	*	*	0.0	0.0	10.0			130.52		0		1,080,000			1,080,000
2005/10/10	*	0	*	*	0.0	0.0	13.0			130.48		0		864,000			864,000
2005/10/11	*	0	*	*	0.0	0.0	10.5			130.44		0		864,000			864,000
2005/10/12	*	3	*	*	0.8	0.0	7.5			130.41		0		864,000			864,000
2005/10/13	*	18	*	*	4.8	0.0	10.5			130.39		0		866,520			866,520
2005/10/14	*	11	*	*	2.9	0.0	15.0			130.36		0		1,519,560			1,519,560
2005/10/15	*	0	*	*	0.0	0.0	8.0			130.33		0		869,760			869,760
2005/10/16	*	0	*	*	0.0	0.0	10.5			130.31		0		872,280			872,280
2005/10/17	*	5	*	*	1.3	0.5	5.0			130.27		0		877,680			877,680
2005/10/18	*	15	*	*	4.0	0.0	5.0			130.25		0		880,920			880,920
2005/10/19	*	13	*	*	3.5	0.0	3.5			130.27		0		881,280			881,280
2005/10/20	*	0	*	*	0.0	0.0	7.0			130.26		0		881,280			881,280
2005/10/21	*	0	*	*	0.0	0.0	13.0			130.24		0		882,720			882,720
2005/10/22	*	0	*	*	0.0	0.0	12.0			130.20		0		884,160			884,160
2005/10/23	*	0	*	*	0.0	19.0	2.5			130.18		0		884,160			884,160
2005/10/24	*	17	*	*	4.5	1.5	3.0			130.20		0		799,200			799,200
2005/10/25	*	6	*	*	1.6	0.5	4.0			130.19		0		884,160			884,160
2005/10/26	*	0	*	*	0.0	0.5	6.0			130.16		0		884,160			884,160
2005/10/27	*	2	*	*	0.5	0.0	7.5			130.15		0		884,160			884,160
2005/10/28	*	0	*	*	0.0	0.0	9.0			130.12		0		891,720			891,720
2005/10/29	*	0	*	*	0.0	0.0	11.0			130.09		0		897,840			897,840
2005/10/30	*	0	*	*	0.0	0.0	6.0			130.10		0		1,572,480			1,572,480
2005/10/31	*	11	*	*	2.9	0.0	8.0			130.06		0		812,880			812,880
Total/Average	0	101	0	0	27.0	23.0	263.5	#DIV/0!	#DIV/0!	130.38		0		36,724,320	0.00		36,724,320

Note : \* \* \* \* : No data is available

**Wonogiri Dam Operation Data Record in 2005**

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman -lojo (mm)	Jatisro -no (mm)	Batu -warno (mm)				Tirto -moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway O=(m <sup>3</sup> /s)	Spillway V=(m <sup>3</sup> )	Turbin O=(m <sup>3</sup> /s)	Turbin V=(m <sup>3</sup> )	Electric Power (KWH)	O=(m <sup>3</sup> /s)	V=(m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/11/1	*	0	*	*	0.0	4.0	7.5			130.02	0	0	0	800,640			800,640
2005/11/2	*	17	*	*	4.5	0.0	5.0			130.03	0	0	0	800,640			800,640
2005/11/3	*	0	*	*	0.0	0.0	7.0			130.04	0	0	0	800,640			800,640
2005/11/4	*	12	*	*	3.2	0.5	9.5			130.01	0	0	0	800,640			800,640
2005/11/5	*	0	*	*	0.0	0.0	12.0			129.98	0	0	0	723,240			723,240
2005/11/6	*	0	*	*	0.0	0.0	9.0			129.95	0	0	0	826,560			826,560
2005/11/7	*	0	*	*	0.0	0.0	13.0			129.93	0	0	0	826,560			826,560
2005/11/8	*	0	*	*	0.0	0.0	15.0			129.90	0	0	0	619,920			619,920
2005/11/9	*	0	*	*	0.0	0.0	16.0			129.89	0	0	0	667,800			667,800
2005/11/10	*	0	*	*	0.0	0.0	13.0			129.84	0	0	0	645,120			645,120
2005/11/11	*	0	*	*	0.0	0.0	16.5			129.80	0	0	0	645,120			645,120
2005/11/12	*	0	*	*	0.0	0.0	14.5			129.78	0	0	0	645,120			645,120
2005/11/13	*	0	*	*	0.0	0.0	14.5			129.75	0	0	0	645,120			645,120
2005/11/14	*	0	*	*	0.0	0.0	16.0			129.72	0	0	0	485,640			485,640
2005/11/15	*	0	*	*	0.0	0.0	15.0			129.70	0	0	0	406,800			406,800
2005/11/16	*	0	*	*	0.0	0.0	18.0			129.68	0	0	0	406,800			406,800
2005/11/17	*	0	*	*	0.0	0.0	14.0			129.67	0	0	0	406,800			406,800
2005/11/18	*	0	*	*	0.0	6.5	8.0			129.63	0	0	0	406,800			406,800
2005/11/19	*	27	*	*	7.2	15.0	6.0			129.63	0	0	0	406,800			406,800
2005/11/20	*	5	*	*	1.3	0.5	5.0			129.61	0	0	0	406,800			406,800
2005/11/21	*	11	*	*	2.9	0.0	8.0			129.60	0	0	0	406,800			406,800
2005/11/22	*	0	*	*	0.0	0.0	15.0			129.60	0	0	0	410,400			410,400
2005/11/23	*	0	*	*	0.0	0.0	14.0			129.58	0	0	0	410,400			410,400
2005/11/24	*	0	*	*	0.0	5.5	15.0			129.56	0	0	0	410,400			410,400
2005/11/25	*	0	*	*	0.0	10.0	3.0			129.56	0	0	0	410,400			410,400
2005/11/26	*	0	*	*	0.0	0.0	5.0			129.55	0	0	0	410,400			410,400
2005/11/27	*	0	*	*	0.0	0.0	10.0			129.53	0	0	0	410,400			410,400
2005/11/28	*	6	*	*	1.6	0.0	10.0			129.52	0	0	0	410,400			410,400
2005/11/29	*	0	*	*	0.0	1.5	9.0			129.52	0	0	0	410,400			410,400
2005/11/30	*	23	*	*	6.1	5.5	5.0			129.52	0	0	0	414,000			414,000
<b>Total/Average</b>	<b>0</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>27.0</b>	<b>49.0</b>	<b>328.5</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	<b>129.74</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16,477,560</b>	<b>16</b>	<b>17=12+14</b>	<b>18=13+15</b>

Note : "\*" : No data is available

Wonogiri Dam Operation Data Record in 2005

Date	Rainfall at Station			Mean Rainfall of Catchment Area (mm)	Rainfall at Wonogiri Dam (mm)	Pan Evaporation at Wonogiri (mm/day)	Reservoir WL			Outflow from Reservoir						Total Outflow from Reservoir	
	Praciman (mm)	Jatisro (mm)	Batu-warno (mm)				Tirto-moyo (mm)	Max. (m)	Min. (m)	Average (m)	Spillway	Turbine		Electric Power (KWH)		O= (m <sup>3</sup> /s)	V= (m <sup>3</sup> )
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17=12+14	18=13+15
2005/12/1	*	41	*	*	10.9	0.0	5.0			129.53	0	0	0	993,600			993,600
2005/12/2	*	0	*	*	0.0	6.5	4.0			129.51	0	0	0	414,000			414,000
2005/12/3	*	25	*	*	6.7	35.0	2.0			129.57	0	0	0	145,800			145,800
2005/12/4	*	9	*	*	2.4	18.5	2.5			129.79	0	0	0	322,200			322,200
2005/12/5	*	1	*	*	0.3	0.0	4.0			129.80	0	0	0	326,880			326,880
2005/12/6	*	0	*	*	0.0	0.0	5.5			129.81	0	0	0	348,480			348,480
2005/12/7	*	0	*	*	0.0	2.0	4.0			129.80	0	0	0	592,200			592,200
2005/12/8	*	6	*	*	1.6	15.0	3.0			129.79	0	0	0	676,800			676,800
2005/12/9	*	49	*	*	13.1	0.0	4.0			129.91	0	0	0	84,600			84,600
2005/12/10	*	3	*	*	0.8	18.0	4.0			129.94	0	0	0	0			0
2005/12/11	*	17	*	*	4.5	3.5	3.0			130.14	0	0	0	0			0
2005/12/12	*	0	*	*	0.0	3.0	3.0			130.38	0	0	0	0			0
2005/12/13	*	1	*	*	0.3	6.0	2.0			130.48	0	0	0	0			0
2005/12/14	*	26	*	*	6.9	2.0	2.0			130.65	0	0	0	0			0
2005/12/15	*	0	*	*	0.0	17.5	2.0			130.76	0	0	0	423,360			423,360
2005/12/16	*	31	*	*	8.3	0.0	17.5			131.17	0	0	0	1,451,520			1,451,520
2005/12/17	*	22	*	*	5.9	27.5	27.5			131.49	0	0	0	1,451,520			1,451,520
2005/12/18	*	15	*	*	4.0	16.0	16.0			131.81	0	0	0	1,451,520			1,451,520
2005/12/19	*	18	*	*	4.8	1.5	1.5			131.99	0	0	0	1,504,800			1,504,800
2005/12/20	*	11	*	*	2.9	10.0	10.0			132.10	0	0	0	384,840			384,840
2005/12/21	*	58	*	*	15.5	13.0	13.0			132.64	0	0	0	0			0
2005/12/22	*	21	*	*	5.6	17.0	17.0			132.85	0	0	0	0			0
2005/12/23	*	17	*	*	4.5	2.0	2.0			133.00	0	0	0	0			0
2005/12/24	*	28	*	*	7.5	11.0	11.0			133.18	0	0	0	0			0
2005/12/25	*	0	*	*	0.0	0.0	0.0			133.22	0	0	0	0			0
2005/12/26	*	0	*	*	0.0	0.0	0.0			133.25	0	0	0	0			0
2005/12/27	*	7	*	*	1.9	28.0	28.0			133.34	0	0	0	0			0
2005/12/28	*	2	*	*	0.5	60.0	60.0			133.48	0	0	0	0			0
2005/12/29	*	23	*	*	6.1	32.5	32.5			133.81	0	0	0	311,040			311,040
2005/12/30	*	36	*	*	9.6	3.0	3.0			134.05	0	0	0	987,480			987,480
2005/12/31	*	25	*	*	6.7	24.0	24.0			134.16	0	0	0	1,611,360			1,611,360
Total/Average	0	467	0	0	124.7	348.5	48.0	#DIV/0!	#DIV/0!	131.37	0	0	0	11,870,640	0.00		11,870,640

Note : \* \* \* : No data is available