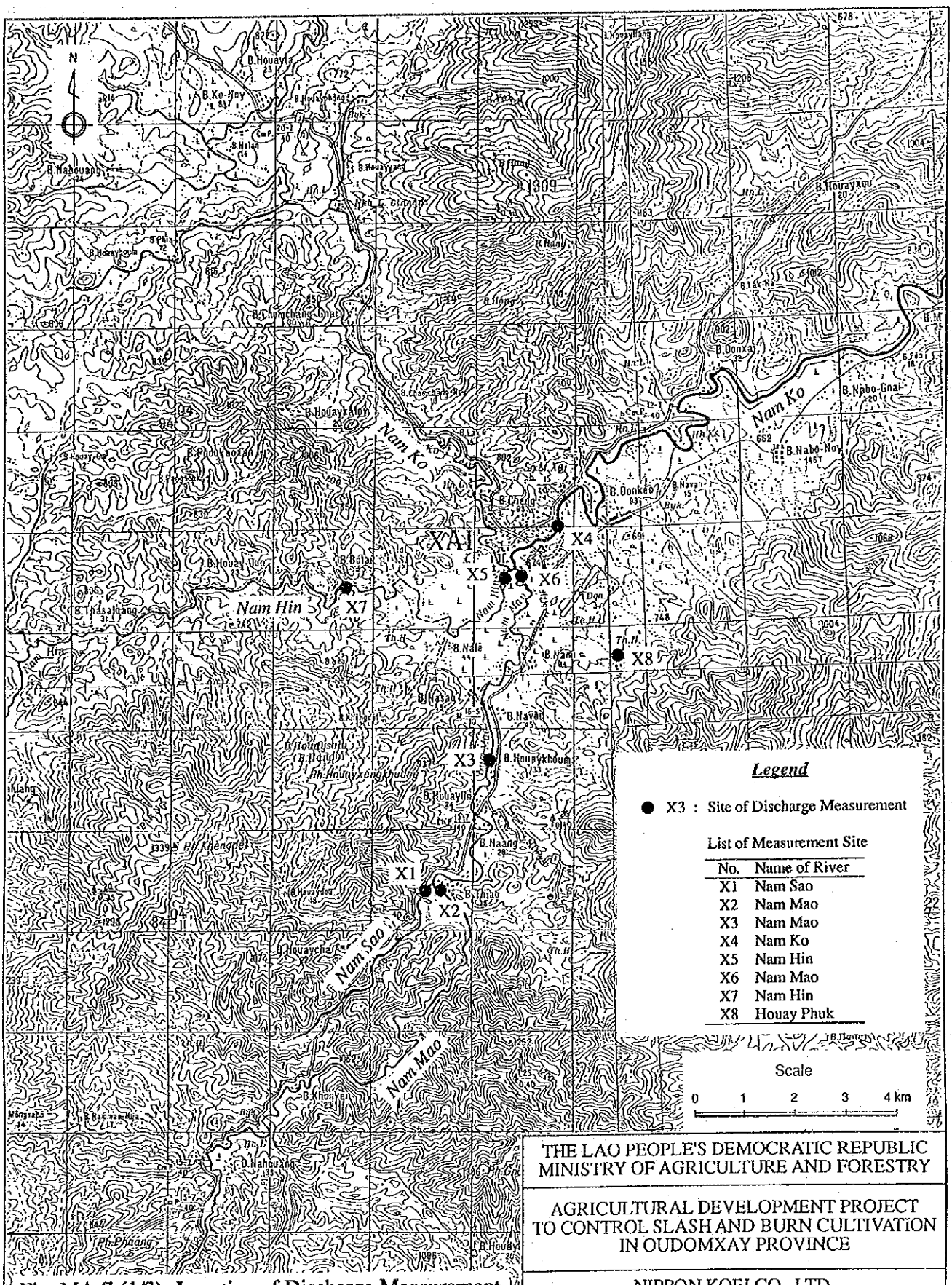


Fig. MA-7 (1/3) Location of Discharge Measurement (Xai District)

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC
MINISTRY OF AGRICULTURE AND FORESTRY

AGRICULTURAL DEVELOPMENT PROJECT
TO CONTROL SLASH AND BURN CULTIVATION
IN OUDOMXAY PROVINCE

NIPPON KOEI CO., LTD.
CONSTRUCTION PROJECT CONSULTANTS, INC.

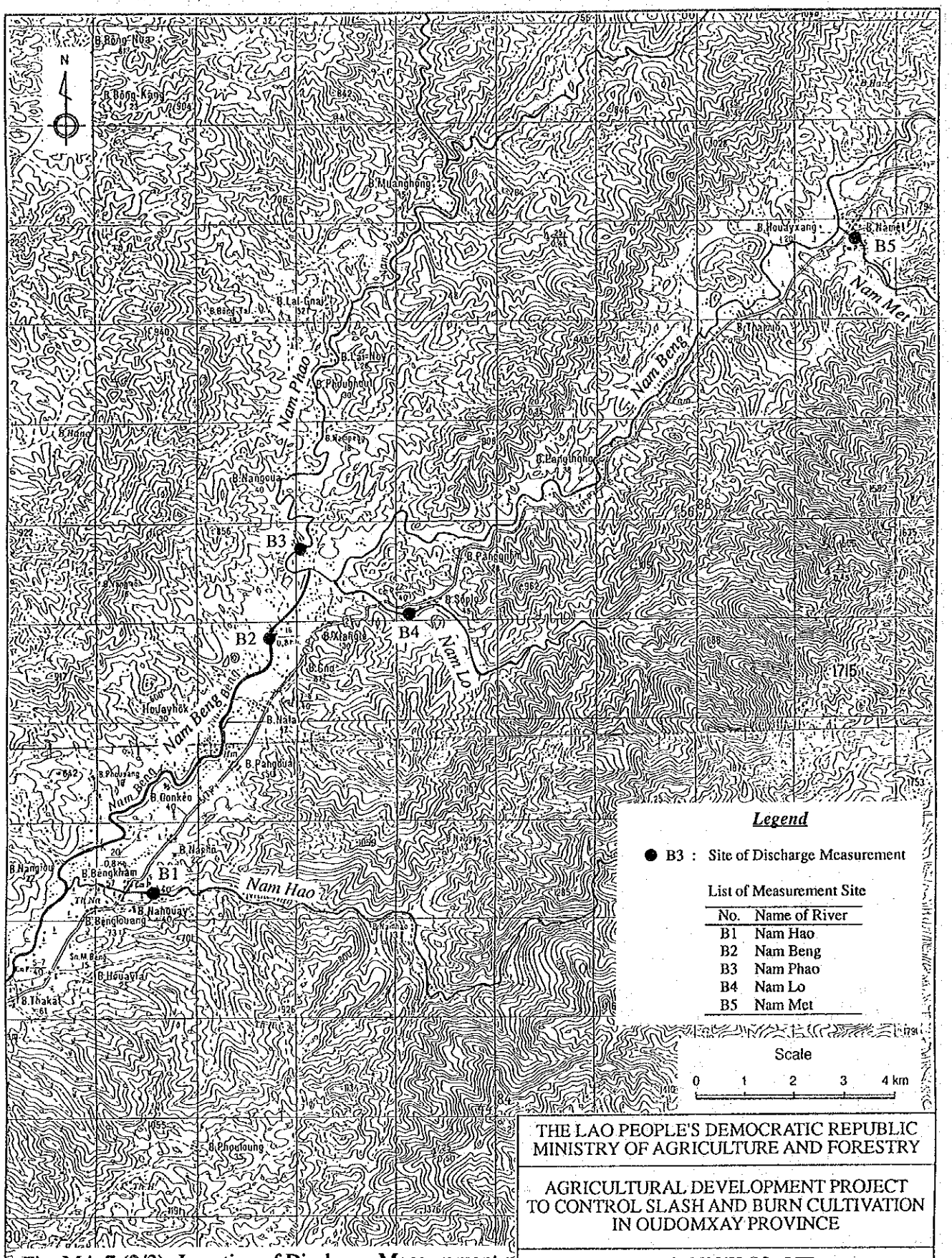
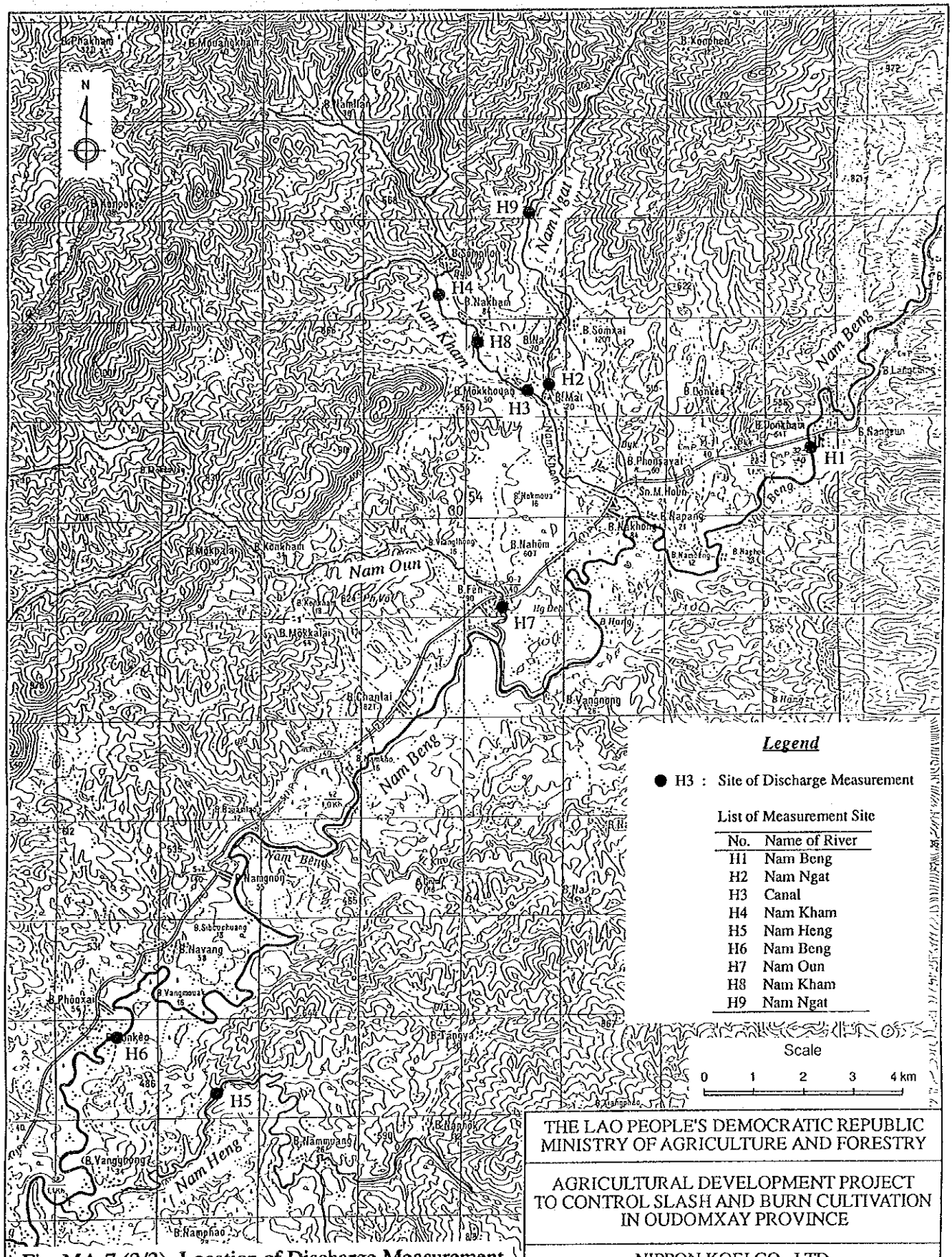


Fig. MA-7 (2/3) Location of Discharge Measurement (Beng District)

THE LAO PEOPLE'S DEMOCRATIC REPUBLIC
MINISTRY OF AGRICULTURE AND FORESTRY

AGRICULTURAL DEVELOPMENT PROJECT
TO CONTROL SLASH AND BURN CULTIVATION
IN OUDOMXAY PROVINCE

NIPPON KOEI CO., LTD.
CONSTRUCTION PROJECT CONSULTANTS, INC.



THE LAO PEOPLE'S DEMOCRATIC REPUBLIC
MINISTRY OF AGRICULTURE AND FORESTRY

AGRICULTURAL DEVELOPMENT PROJECT
TO CONTROL SLASH AND BURN CULTIVATION
IN OUDOMXAY PROVINCE

NIPPON KOEI CO., LTD.
CONSTRUCTION PROJECT CONSULTANTS, INC.

Fig. MA-7 (3/3) Location of Discharge Measurement (Hun District)

Appendix

APPENDIX-MA METEOROLOGICAL DATA

TABLE OF CONTENTS

LIST OF METEOROLOGICAL STATIONS IN LAO PDR

No.	Name	Province	Station			Latitude	Longitude	Elevation HP(m)
			S	A	C			
1	VIENGSAY	HOUAPHAN	x		x	20 25'N	104 14'E	913
2	LUANG-PRABANG	LUANG-PRABANG	x		x	19 53'N	102 08'E	306
3	BOUNNEUA	PHONGSALY			x	21 38'N	101 53'E	923
4	OUDOMXAY	OUDOMXAY	x		x	20 41'N	102 00'E	550
5	XIENGKHOUANG	XIENGKHOUANG	x		x	19 28'N	103 08'E	1050
6	PAKLAY	SAYABOURY		x	x	18 12'N	101 24'E	220
7	NAMTANE	SAYABOURY		x	x	19 07'N	101 33'E	370
8	SAYABOURY	SAYABOURY	x		x	19 14'N	101 44'E	326
9	LUANGNAMTHA	LUANGNAMTHA			x	21 03'N	101 28'E	644
10	VANGVIENG	VIENTIANE P.		x	x	18 55'N	102 22'E	298
11	PHONEHONG	VIENTIANE P.		x	x	18 28'N	102 24'E	179
12	PAKCHENG	VIENTIANE P.		x	x	18 16'N	102 57'E	172
13	THAGNONE	VIENTIANE M.		x	x	18 17'N	102 38'E	185
14	VEUNKHAM	VIENTIANE M.			x	18 20'N	102 38'E	178
15	HATDOCKEO	VIENTIANE M.		x		17 51'N	102 36'E	165
16	SALAKHAM	VIENTIANE M.		x		17 03'N	102 35'E	-
17	VIENTIANE	VIENTIANE M.	x	x	x	17 57'N	102 34'E	171
18	PAKSANE	BOLIKHAMSAI			x	18 24'N	103 40'E	157
19	THAKHEK	KHAMMOUANE	x		x	17 23'N	104 39'E	152
20	SAVANNAKHET	SAVANNAKHET	x	x	x	16 33'N	104 45'E	155
21	SENO	SAVANNAKHET			x	16 40'N	105 00'E	185
22	SEPONE	SAVANNAKHET			x	16 43'N	106 12'E	170
23	PAKSE	CHAMPASAK	x	x	x	15 07'N	105 47'E	102
24	STN KM 42	CHAMPASAK		x		15 10'N	106 10'E	1160
25	STN KM 34	CHAMPASAK		x		15 11'N	106 34'E	1150
26	PAKSONG	CHAMPASAK		x	x	15 10'N	106 12'E	1200
27	SOUKHOUMA	CHAMPASAK			x	14 38'N	105 47'E	82
28	SARAVANE	SARAVANE	x	x	x	15 41'N	106 26'E	168
29	ATTAPEU	ATTAPEU	x	x	x	14 48'N	106 50'E	-
30	PHONGSALY	PHONGSALY		x	x	21 38'N	102 05'E	-
31	NAPENG	VIENTIANE P.		x	x	18 16'N	102 57'E	172
		Total	11	18	27			

Note: S - Synoptic station
A - Agromet. station
C - Climatic station
HP - It is the datum level given by barometric pressure reports.

DAILY PRECIPITATION

Station: OUDOMXAY
Year: 1991 (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	6.5	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	6.1	3.8	18.4	0.0	12.5	4.8	7.8	0.0	0.0
3	0.0	0.0	0.0	8.0	0.0	0.0	13.2	0.0	2.6	9.3	17.6	0.0
4	0.0	0.0	0.0	0.0	11.2	10.2	0.0	0.0	25.1	0.0	3.7	1.2
5	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	1.8	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	21.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	15.5	0.0	20.2	16.4	0.0	0.0	1.9	0.0
8	0.0	0.0	0.0	0.0	15.8	0.0	2.4	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.0	20.3	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.6	2.6	31.0	3.6	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	9.9	0.0	90.5	7.5	9.8	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	63.1	1.7	15.3	3.0	0.8	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	3.1	4.5	1.6	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	4.4	42.0	0.8	0.0	0.0	0.0
16	0.1	0.0	10.0	0.0	4.8	18.8	2.4	6.0	0.0	0.0	0.0	0.0
17	0.0	0.0	7.0	0.0	6.4	0.0	11.2	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	3.4	7.0	0.0	0.2	8.0	0.0	0.0	9.8	0.0	0.0
19	0.0	0.0	7.0	23.5	0.0	2.1	3.2	0.0	6.0	3.5	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	13.2	0.0	0.0
21	0.0	0.0	0.0	0.0	1.6	39.5	0.0	3.0	0.0	0.0	0.0	0.0
22	0.0	0.2	0.0	0.0	0.0	55.0	19.2	10.0	5.2	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	8.8	0.2	11.8	0.2	1.4	0.4	0.0	0.0
24	0.0	0.0	0.0	23.2	3.8	6.4	18.6	25.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	22.0	1.2	9.8	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	36.0	0.0	14.8	3.8	19.0	0.0	0.0	0.0	0.9
27	0.0	0.0	0.0	0.0	9.0	22.8	0.0	6.4	5.6	0.0	0.0	2.2
28	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	25.2	0.0	0.0	0.0
29	0.0	0.0	5.4	0.0	31.1	0.0	0.2	0.0	0.8	0.0	0.0	0.0
30	0.0	0.0	21.3	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	22.2	0.0	1.4	3.2	0.0	0.0	0.0	0.0
Total	0.1	0.2	71.5	103.8	155.3	290.0	137.0	301.2	134.4	54.6	23.2	4.3
Daily max	0.1	0.2	21.3	36.0	31.1	63.1	20.2	90.5	25.2	13.2	17.6	2.2
Days	1	1	7	6	14	16	20	17	18	8	3	3

Annual Total : 1,275.7 mm
Daily Maximum : 90.5 mm

Source: Department of Meteorology and Hydrology, MAF

DAILY PRECIPITATION

Station: OUDOMXAY
Year: 1992 (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	2.8	1.1	18.0	1.3	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.0	0.0	0.0	3.4	0.0	14.3	0.0	2.0	0.0	
4	7.0	0.0	0.0	0.0	0.0	2.9	0.0	11.0	0.0	0.0	0.0	
5	0.0	0.0	0.0	0.0	0.0	0.0	20.8	13.9	0.0	0.0	0.0	
6	0.0	0.0	0.0	0.0	0.0	2.3	0.0	8.7	0.0	0.0	0.0	
7	0.0	0.0	0.0	8.0	0.0	10.2	3.3	5.1	0.0	0.0	0.0	
8	0.0	na	0.0	0.0	0.0	0.0	38.4	0.0	0.0	0.0	7.6	
9	0.0	na	0.0	0.0	0.0	0.0	2.5	0.0	25.0	0.0	0.0	
10	0.0	0.0	0.0	0.0	0.0	0.0	0.5	15.0	5.0	0.0	6.0	
11	0.0	0.0	0.0	0.0	57.3	0.8	28.0	0.0	0.0	0.0	0.0	
12	0.0	0.0	0.0	0.0	0.0	10.6	7.2	0.0	3.0	0.0	0.0	
13	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	2.9	0.0	
14	0.0	0.0	0.0	0.0	0.0	20.4	17.3	0.0	14.2	8.0	0.0	
15	0.0	0.0	0.0	9.0	37.3	0.0	0.0	99.0	27.7	1.9	0.0	
16	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	31.9	0.0	0.0	
17	0.0	0.0	0.0	4.0	17.2	0.2	0.0	0.0	25.0	0.0	0.0	
18	0.0	0.0	0.0	11.0	3.4	10.6	0.0	0.0	3.2	0.0	0.0	
19	0.0	0.0	0.0	0.0	0.6	6.7	0.0	0.0	13.9	0.0	0.0	
20	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.3	0.0	0.0	
21	0.0	0.0	0.0	0.0	0.2	7.4	11.1	0.0	4.9	0.0	0.0	
22	0.0	0.0	0.0	0.0	7.2	0.0	31.1	2.0	0.0	0.0	0.0	
23	0.0	0.0	0.0	0.0	10.5	2.0	27.0	15.0	6.4	5.0	0.0	
24	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	
25	0.0	26.1	0.0	0.0	0.0	0.0	10.0	1.6	3.9	0.0	0.0	
26	0.0	27.7	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	1.7	
27	0.0	0.0	0.0	0.0	6.0	4.5	0.0	0.0	0.0	0.0	3.8	
28	0.0	0.0	0.0	0.0	33.0	14.7	0.0	1.0	0.0	0.0	0.0	
29	0.0	na	0.0	0.0	7.0	22.1	18.0	0.0	0.0	0.0	0.0	
30	0.0		0.0	0.0	0.0	57.4	0.0	0.1	15.0	4.0	0.0	
31	na		0.0		0.0		0.0	27.5		0.0		
Total	7.0	53.8	0.0	32.0	186.5	190.5	223.0	232.2	180.7	23.8	19.1	
Daily max	7.0	27.7	0.0	11.0	57.3	57.4	38.4	99.0	31.9	8.0	7.6	
Days	1	2	0	4	14	19	15	14	15	6	4	

Annual Total : 1,148.6 mm
Daily Maximum : 99.0 mm

Source: Oudomxay Meteo Station

DAILY PRECIPITATION

Station: Huang Hun
Year: 1992 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1				0.0	2.0	0.0	0.0	19.5	0.0	0.0	0.0	
2				0.0	0.0	0.0	0.5	0.0	0.0	1.0	0.0	
3				0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	
4				0.0	0.0	2.5	5.5	18.5	0.0	10.5	0.0	
5				0.0	0.0	13.5	6.0	3.5	0.0	0.0	0.0	
6				0.0	0.0	3.0	0.0	0.5	0.0	2.5	0.0	
7				5.0	0.0	9.5	22.5	0.0	0.0	0.0	0.0	
8				0.0	0.0	0.0	18.0	0.0	10.0	0.0	0.0	
9				0.0	0.0	2.5	10.0	16.5	13.5	0.0	0.0	
10				0.0	0.0	0.5	6.0	42.5	0.5	0.0	0.0	
11				0.0	0.0	0.0	1.0	0.0	0.5	0.0	0.0	
12				0.0	0.0	4.0	14.5	8.0	0.0	1.0	0.0	
13				0.0	0.5	0.0	16.0	0.0	57.0	3.5	0.0	
14				0.0	4.0	3.5	11.0	0.0	0.5	0.5	0.0	
15				7.5	20.0	0.0	0.0	13.0	17.5	4.0	0.0	
16				31.0	1.0	0.0	0.0	0.0	11.5	5.5	0.0	
17				0.0	8.0	0.0	0.0	0.0	37.0	8.0	0.0	
18				0.0	0.0	0.0	6.0	0.0	11.5	1.5	0.0	
19				0.0	8.0	0.5	0.0	0.0	4.0	0.0	0.0	
20				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	19.0	5.5	0.0	0.0	
22				0.0	0.0	0.0	42.0	18.5	10.0	0.0	0.0	
23				0.0	10.5	0.0	2.0	8.0	0.0	0.0	0.0	
24				0.0	2.0	0.0	0.0	10.5	0.5	0.0	0.0	
25				0.0	0.0	2.0	8.5	3.0	0.0	0.0	0.0	
26				0.5	0.0	0.0	1.5	10.5	0.0	0.0	0.0	
27				1.5	26.0	0.0	9.0	2.0	0.0	0.0	0.0	
28				0.0	21.0	0.0	2.5	2.0	13.0	0.0	0.0	
29				0.0	3.5	0.0	2.5	na	0.0	1.5	0.0	
30				0.0	0.0	22.5	9.5	na	0.0	1.5	0.0	
31					0.0		2.5	10.0		0.0		
Total	0.0	0.0	0.0	45.5	106.5	64.0	197.0	205.5	197.0	41.0	0.0	0.0
Daily max	ERR	ERR	ERR	31.0	26.0	22.5	42.0	42.5	57.0	10.5	0.0	ERR
Days				5	12	11	21	17	16	12	0	

Annual Total : 856.5 mm
Daily Maximum : ERR mm

Source: JICA Study team

DAILY PRECIPITATION

Station: PAKBENG
Year: 1980 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	11.5	0.0	21.3	0.0	0.0	13.2	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	5.4	4.9	0.0	19.5	14.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	37.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	24.5	26.5	0.0	0.0	7.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	2.6	0.0	70.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	13.7	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	9.0	4.3	0.0	0.0
8	0.0	0.0	0.0	19.4	0.0	0.0	0.0	0.0	14.6	7.0	0.0	0.0
9	0.0	0.0	0.0	22.8	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	17.0	13.8	0.0	0.0	7.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	2.8	9.9	10.0	0.0	0.0	0.0	0.5
13	0.0	0.0	0.0	0.0	0.0	26.1	0.0	0.0	0.0	0.0	0.0	35.3
14	0.0	0.0	0.0	0.0	0.0	50.9	5.2	0.0	15.7	0.0	0.0	2.5
15	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	7.5	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	12.7	36.6	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	13.6	43.4	0.0	3.8	0.0	0.0	0.0
18	0.0	0.0	0.0	21.6	0.0	2.8	3.3	8.2	0.0	1.3	0.0	0.0
19	0.0	0.0	0.0	3.3	28.4	7.8	50.0	0.0	0.0	43.8	0.0	0.0
20	0.0	0.0	0.0	1.2	0.0	5.4	16.8	9.9	0.0	6.2	0.0	0.0
21	0.0	0.0	0.0	6.0	0.0	0.7	11.2	4.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	11.6	0.0	18.6	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	12.6	4.4	51.3	1.0	0.0	0.0	0.0	0.0
24	0.0	0.0	42.0	0.0	12.0	34.3	23.7	18.7	15.0	0.0	4.6	0.0
25	0.0	0.0	4.5	0.0	0.0	7.6	14.0	1.5	0.0	0.0	0.0	0.0
26	0.0	0.0	1.0	0.0	53.5	21.2	6.3	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	6.2	0.5	18.5	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	26.2	12.8	0.0	16.7	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	17.2	16.3	0.0	28.5	0.0	0.0	0.0	0.0
31	0.0		0.0		15.1		0.0	68.2		0.0		0.0
Total	0.0	0.0	47.5	85.8	246.8	411.1	253.6	276.5	167.5	62.6	4.6	38.3
Daily max	0.0	0.0	42.0	22.8	53.5	50.9	51.3	70.0	37.0	43.8	4.6	35.3
Days	0	0	3	7	14	25	12	14	13	5	1	3

Annual Total : 1,594.3 mm
Daily Maximum : 70.0 mm

Source: Lower Mekong Hydrologic Yearbook 1980, Interim Committee for Co-ordination of Investigations of the Lower Mekong Basin

DAILY PRECIPITATION

Station: PAKBENG
Year: 1989 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	1.8	0.0	27.8	7.2	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	8.9	33.2	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	43.6	5.2	0.0	11.2	0.0	0.0
5	0.0	0.0	0.0	0.0	0.5	0.3	0.0	16.6	2.6	1.5	0.0	0.0
6	0.0	0.0	0.0	0.0	3.1	0.0	10.0	0.0	31.6	11.9	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	11.4	17.5	9.9	7.1	18.9	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	2.4	3.1	6.9	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	61.9	0.0	17.7	9.7	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	1.4	2.7	0.4	3.6	1.8	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	4.7	11.2	44.2	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	34.9	5.3	5.6	16.8	0.6	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	2.5	2.1	2.6	33.2	0.0	0.2	0.0	0.0
15	0.0	0.0	0.0	0.0	3.2	15.7	0.0	2.5	31.0	12.9	0.0	0.0
16	0.0	0.0	17.3	0.0	5.4	3.3	0.0	0.0	0.0	1.0	0.0	0.0
17	0.0	0.0	8.2	0.0	0.0	2.7	0.0	0.0	0.0	6.4	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	21.3	10.6	11.1	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3	0.0	0.0	0.0	0.0
22	0.0	0.0	4.9	0.0	0.0	0.0	0.0	8.1	5.1	0.0	0.0	0.0
23	0.0	0.0	18.7	0.0	0.0	0.0	0.0	9.2	66.9	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	3.3	20.5	0.0	37.1	0.0	0.0	0.0
25	0.0	0.0	0.0	26.2	6.8	1.6	25.2	45.1	8.6	0.0	0.0	0.0
26	4.8	0.0	0.0	13.6	0.0	4.2	6.5	3.5	9.2	19.6	0.0	0.0
27	2.4	0.0	0.0	3.2	2.4	4.5	4.3	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	22.8	9.3	5.6	0.0	6.3	0.0	0.0	0.0	0.0
29	0.0		0.0	0.3	37.8	6.5	0.0	0.0	0.0	43.3	0.0	0.0
30	0.0		0.0	13.9	10.0	0.0	0.6	26.6	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		18.5	0.0		0.0		0.0
Total	7.2	0.0	49.1	86.1	122.0	179.0	263.6	228.1	235.3	132.7	0.0	0.0
Daily max	4.8	0.0	18.7	26.2	37.8	61.9	44.2	45.1	66.9	43.3	0.0	0.0
Days	2	0	4	8	13	18	17	18	15	12	0	0

Annual Total : 1,303.1 mm
Daily Maximum : 66.9 mm

Source: Lower Mekong Hydrologic Yearbook 1989, Interim Committee for Co-ordination of Investigations of the Lower Mekong Basin

DAILY PRECIPITATION

Station: PAKBENG
Year: 1990 (Unit: ■■)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	0.0		1.1	19.2	0.0	0.0	2.7	0.0	
2	0.0	0.0	0.0	0.0		6.3	28.4	8.3	14.6	4.9	0.0	
3	0.0	0.0	0.0	0.0		26.9	18.2	1.1	2.7	0.0	0.0	
4	0.0	0.0	0.0	0.0		4.6	20.0	0.0	2.5	0.0	0.0	
5	0.0	0.0	0.0	10.8		5.9	16.2	6.5	47.4	0.0	0.0	
6	0.0	0.0	0.0	24.6		0.0	15.0	0.0	0.0	3.3	0.9	
7	0.0	0.0	0.0	0.0		0.0	0.8	0.0	0.0	5.2	13.9	
8	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	9.9	0.0	
9	0.0	0.0	0.0	0.0		32.6	0.0	0.0	36.4	0.0	0.0	
10	0.0	0.0	0.0	0.0		14.5	0.0	3.6	11.1	0.0	20.0	
11	0.0	0.0	0.0	0.0		0.0	0.0	1.5	0.2	0.0	0.0	
12	0.0	1.2	0.0	0.0		4.0	3.3	0.0	0.0	0.0	0.0	
13	0.0	14.6	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	
15	0.0	0.0	0.0	0.0		0.0	4.7	0.0	24.5	0.0	0.0	
16	0.0	0.0	0.0	0.0		0.0	1.9	0.0	32.7	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	
18	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	
20	0.0	0.0	0.0	0.0		0.0	19.6	0.0	0.0	0.0	0.0	
21	0.0	0.6	0.0	0.0		0.4	34.8	0.0	0.0	0.0	0.0	
22	1.6	1.0	0.0	0.0		4.0	29.3	0.0	0.0	0.0	0.0	
23	0.0	18.7	0.0	0.0		10.2	10.0	0.0	0.0	4.7	0.0	
24	1.4	2.4	0.0	0.0		0.9	0.0	0.0	0.0	0.0	0.0	
25	0.0	0.0	0.0	0.0		0.8	0.0	25.8	9.8	0.0	0.0	
26	0.0	5.8	0.0	1.5		0.0	13.5	11.2	14.4	0.0	0.0	
27	0.0	0.5	0.0	7.5		2.1	7.5	15.6	0.0	0.0	0.0	
28	0.0	0.0	0.0	3.0		2.6	5.8	13.0	0.0	3.9	0.0	
29	0.0		0.0	0.0		1.7	7.9	0.2	0.0	0.0	0.0	
30	0.0		0.0	0.0		0.0	60.0	6.5	0.0	0.0	0.0	
31	0.0		0.0				7.8	4.2		3.2		
Total	3.0	44.8	0.0	47.4	-	118.6	323.9	97.5	196.3	37.8	34.8	-
Daily ■ax	1.6	18.7	0.0	24.6	-	32.6	60.0	25.8	47.4	9.9	20.0	-
Days	2	8	0	5	-	16	20	12	11	8	3	-

Annual Total : - ■■
Daily Maxi■u■ : - ■■

Source: Ministry of Co■■unication T.P.C

DAILY PRECIPITATION

Station: PAKBENG
Year: 1991 (Unit: ■■)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	1.0	0.0	0.0	0.0	3.5	18.7	0.0	0.0	0.0
2	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
3	1.5	0.0	0.0	10.7	0.0	0.0	31.2	0.0	23.8	0.0	17.5	0.0
4	4.3	0.0	0.0	0.0	60.0	15.8	0.0	0.0	7.8	0.0	8.5	0.0
5	0.0	0.0	0.0	2.3	15.6	53.2	0.0	0.0	35.6	7.5	0.0	0.0
6	0.0	0.0	0.0	0.0	67.9	15.1	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	18.5	2.7	13.0	0.0	6.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	42.0	25.9	0.0	0.0	8.4	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	21.7	0.4	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	36.8	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	16.8	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	18.5	0.0	0.0	6.7	1.5	15.3	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	25.5	14.6	11.4	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	19.1	0.0	16.9	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	3.3	0.0	18.2	0.0	11.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	4.7	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	36.3	1.6	0.0	0.0	16.5	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	32.8	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	8.6	4.5	7.1	10.4	3.4	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	1.1	10.3	70.8	7.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.8	11.5	0.0	3.5	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	2.5	0.0	37.7	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	5.0	12.5	8.2	0.0	11.9	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.1	0.0	0.0	0.0	2.1
29	0.0		1.2	0.0	23.1	0.0	0.0	26.4	0.0	0.0	0.0	4.6
30	0.0		0.0	0.0	5.9	0.0	18.3	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		16.6	45.2		0.0		0.0
Total	5.8	0.0	27.7	99.7	356.0	227.6	201.1	179.6	100.3	7.5	26.0	6.7
Daily ■ax	4.3	0.0	18.5	36.3	67.9	53.2	70.8	45.2	35.6	7.5	17.5	4.6
Days	2	0	4	9	18	15	10	14	6	1	2	2

Annual Total : 1,238.0 ■■
Daily Maximum : 70.8 ■■

Source: Ministry of Communication T.P.C

DAILY PRECIPITATION

Station: MUANG NANTHA
Year: 1980 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	10.3	0.0	62.4	0.0	26.9	50.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	16.1	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	11.5	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	10.5	4.1	0.0	1.5	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	11.3	5.0	0.0	1.2	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.3	3.4	7.4	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	6.4	2.1	8.8	4.9	0.0	0.0
9	0.0	0.0	0.0	0.0	6.4	16.8	1.3	0.0	35.9	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	9.5	0.0	0.0	3.2
11	0.0	0.0	0.0	0.0	0.0	10.8	0.0	4.0	0.0	0.0	0.0	24.7
12	0.0	0.0	0.0	0.0	12.3	0.3	6.3	2.1	0.0	0.0	0.0	3.1
13	0.0	0.0	0.0	0.0	0.0	0.5	16.8	18.4	0.0	0.0	0.0	15.6
14	0.0	3.0	0.0	10.3	0.0	6.1	37.2	14.5	3.8	0.0	0.0	0.0
15	0.0	0.0	0.0	6.1	0.0	1.4	0.0	64.5	10.1	0.0	0.0	0.0
16	0.0	0.0	10.8	0.0	0.0	9.3	24.6	0.0	2.8	6.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	2.5	7.7	11.4	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	2.4	29.4	34.6	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	21.7	0.2	22.4	0.0	0.0	6.1	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	4.8	11.2	55.7	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	13.2	5.3	9.7	6.9	0.9	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	2.1	16.2	3.1	2.6	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	14.6	0.8	7.2	7.8	0.0	0.0	3.9	0.0
24	0.0	0.0	0.0	6.9	6.3	8.5	57.2	25.7	0.0	0.0	4.3	0.0
25	0.0	0.0	0.5	0.0	4.8	33.6	14.8	8.6	0.0	0.0	6.8	0.0
26	0.0	0.0	0.0	0.0	2.2	28.3	25.8	16.1	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	1.2	0.0	0.0	18.4	24.5	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	63.3	1.2	30.0	0.0	1.9	0.0	0.0
30	0.0		0.0	0.0	4.2	13.5	6.4	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		6.7		3.6	0.0		0.0		0.0
Total	0.0	3.0	12.5	33.6	126.3	330.6	320.0	375.9	137.6	28.1	15.0	46.6
Daily max	0.0	3.0	10.8	10.3	21.7	63.3	57.2	64.5	50.0	7.4	6.8	24.7
Days	0	1	3	4	14	24	21	21	11	6	3	4

Annual Total : 1,429.2 mm
Daily Maximum : 64.5 mm

Source: Lower Mekong Hydrologic Yearbook 1980, Interim Committee for Co-ordination of Investigations of the Lower Mekong Basin

DAILY PRECIPITATION

Station: HUANG NAMTHA
Year: 1988 (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	20.4	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	10.9	20.9	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	10.2	41.9	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	10.2	0.0	0.3	40.7	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	10.2	10.7	10.8	60.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.9	0.0	1.4	10.3	0.0	0.0	0.0	0.0
7	0.0	0.0	10.7	0.0	30.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.6	0.7	50.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	70.3	0.0	0.0	20.5	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	10.4	0.0	0.0	20.8	0.0	10.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	10.9	0.0	0.0	0.8	10.8	0.0	0.0	0.0
15	0.0	0.0	0.0	0.9	20.5	0.0	0.0	10.4	20.0	0.0	0.0	0.0
16	0.0	0.0	0.0	10.1	20.0	0.0	10.6	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.5	10.8	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	10.8	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	60.0	0.0	0.6	0.4	30.2	0.0	20.1	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	30.2	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	30.4	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	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	0.9	0.0	0.0	0.0	0.0
25	0.0	10.3	0.0	20.3	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	10.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	21.6	0.0	0.0	0.9	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	20.8	20.3	0.0	20.8	0.0	0.0	0.0
30	0.0		0.0	0.0	0.0	10.0	20.4	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		10.3		30.7	0.0		0.0		0.0
Total	0.0	81.1	10.7	112.6	115.2	135.0	158.0	339.4	122.8	0.0	0.0	0.0
Daily max	0.0	60.0	10.7	70.3	30.1	30.2	30.7	70.0	60.0	0.0	0.0	0.0
Days	0	3	1	6	11	9	13	16	7	0	0	0

Annual Total : 1,074.8 mm
Daily Maximum : 70.3 mm

Source: Lower Mekong Hydrologic Yearbook 1988, Interim Committee for Co-ordination of Investigations of the Lower Mekong Basin

DAILY PRECIPITATION

Station: MUANG KHOA
Year: 1988 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	0.0			1.6	7.8	6.5	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0			23.2	23.3	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0			26.2	3.5	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0			12.4	0.0	50.2	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0			24.4	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0			0.2	54.5	0.0	0.0	0.0	0.0
7	0.0	0.0	1.8	0.0			0.0	26.4	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0			5.2	63.7	18.5	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0			0.0	9.5	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0			0.0	12.1	5.3	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0			7.5	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0			25.5	0.0	0.0	5.5	0.0	0.0
13	0.0	0.0	0.0	4.7			6.9	6.9	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	23.6			0.0	63.3	0.0	3.3	0.0	0.0
15	0.0	0.0	0.0	12.4			14.3	8.3	4.1	2.8	0.0	0.0
16	0.0	28.5	0.0	0.0			10.6	4.7	23.9	0.0	0.0	0.0
17	0.0	10.3	0.0	18.7			101.5	0.0	0.0	0.0	5.4	0.0
18	0.0	0.0	0.0	16.3			0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0			8.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0			9.6	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0			4.5	47.5	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0			4.9	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0			27.3	0.0	0.0	6.2	0.0	0.0
24	0.0	0.0	0.0	0.0			0.0	2.4	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0			21.5	6.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0			0.0	1.8	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	43.2			0.0	25.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0			28.7	8.5	23.4	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0			8.0	0.0	5.1	0.0	0.0	0.0
30	0.0		0.0	0.0			60.8	5.2	0.0	0.0	0.0	0.0
31	0.0		0.0				0.0	16.0		0.0		0.0
Total	0.0	38.8	1.8	118.9	-	-	432.8	396.4	137.0	17.8	5.4	0.0
Daily max	0.0	28.5	1.8	43.2	-	-	101.5	63.7	50.2	6.2	5.4	0.0
Days	0	2	1	6	-	-	22	20	8	4	1	0

Annual Total : - mm
Daily Maximum : - mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: MUANG KHOA
Year: 1989 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	17.6	0.0	19.1	8.0	0.0	0.5	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	26.4	1.6	12.4	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	6.7	4.7	3.5	0.0	0.0	9.2	0.0	0.0
4	6.6	0.0	0.0	0.0	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0
5	13.6	0.0	0.0	0.0	0.0	22.1	0.0	0.0	0.0	2.8	0.0	0.0
6	14.6	0.0	0.0	0.0	8.9	34.2	6.0	0.0	50.6	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	1.0	3.0	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	13.1	4.6	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	3.2	0.0	2.2	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	26.5	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	12.9	4.3	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	137.1	8.0	0.0	10.4	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	16.0	5.3	6.0	22.8	0.0	0.0	0.0	0.0
14	0.0	13.5	0.0	0.0	11.2	6.7	20.0	34.9	0.0	0.0	0.0	0.0
15	0.0	0.0	2.5	0.0	0.0	2.6	0.0	10.4	0.0	11.4	0.0	0.0
16	0.0	0.0	0.0	0.0	52.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	5.5	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
19	0.0	0.0	20.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	2.1	0.0	0.0	0.0	12.0	23.3	0.0	0.0	0.0	0.0
21	0.0	0.0	24.6	0.0	0.0	0.0	0.0	7.8	10.5	0.0	0.0	0.0
22	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
23	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	18.6	0.0	0.0	0.0
24	1.5	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
25	1.2	0.0	0.0	51.5	0.0	45.1	29.7	0.0	9.8	0.0	0.0	0.0
26	0.0	2.7	0.0	14.8	1.5	18.8	1.3	6.6	10.0	0.0	0.0	0.0
27	0.0	0.0	0.0	15.1	0.0	32.0	0.0	0.0	0.0	3.1	0.0	0.0
28	0.0	0.0	0.0	0.0	10.6	7.3	0.0	15.2	0.0	0.0	0.0	0.0
29	1.0		0.0	13.2	9.2	3.4	20.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	23.6	7.9	0.0	5.5	41.1	0.0	0.0	0.0	0.0
31	0.0		56.2		4.7		58.2	0.0		0.0		0.0
Total	38.5	16.2	171.7	135.8	129.7	411.5	198.6	189.8	116.3	34.5	0.0	0.0
Daily max	14.6	13.5	56.2	51.5	52.0	137.1	58.2	41.1	50.6	11.4	0.0	0.0
Days	6	2	10	6	11	19	15	11	10	5	0	0

Annual Total : 1442.6 mm
Daily Maximum : 137.1 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: HUANG KHOA
Year: 1990 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	2.5	3.2	8.0	30.2	0.0	0.0	0.0			
2	0.0	0.0	0.0	0.0	0.0	34.7	64.5	0.0	15.5			
3	0.0	0.0	0.0	0.1	8.7	0.0	44.3	0.0	0.0			
4	0.0	0.0	0.0	0.0	0.0	45.0	7.7	0.0	0.0			
5	0.0	0.0	0.0	42.3	0.0	7.4	24.9	0.0	0.0			
6	0.0	0.0	0.0	11.2	0.0	0.0	0.0	0.0	39.0			
7	4.8	0.0	0.0	17.6	0.0	4.3	0.0	0.0	0.0			
8	3.1	0.0	17.4	0.0	60.6	0.0	0.0	0.0	0.0			
9	0.0	0.0	4.9	0.0	0.0	15.5	0.0	2.1	0.0			
10	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0			
11	0.0	0.0	1.1	0.0	13.5	8.0	0.0	26.3	0.0			
12	0.0	5.5	18.3	0.0	0.0	25.5	0.0	0.0	0.0			
13	0.0	0.2	6.2	0.0	0.0	0.0	0.0	0.0	6.6			
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
15	0.0	0.0	9.4	0.0	16.9	50.9	12.1	8.0	0.0			
16	0.0	0.0	1.4	0.0	20.9	3.5	12.5	0.0	0.0			
17	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0			
18	0.0	0.0	0.0	0.0	0.0	2.5	7.0	0.0	0.0			
19	0.0	0.0	0.0	0.0	3.0	0.0	47.4	17.3	0.0			
20	0.0	0.0	7.2	0.0	0.0	38.3	0.0	0.0	0.0			
21	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	5.7			
22	0.0	5.4	1.3	0.0	0.0	0.0	0.0	0.0	0.6			
23	0.0	15.4	0.0	0.0	0.0	2.6	0.0	0.0	6.3			
24	0.0	0.0	0.0	0.0	1.5	0.0	0.0	22.4	0.0			
25	3.8	0.0	0.0	15.6	10.8	2.6	41.5	10.6	0.0			
26	0.0	0.0	0.0	22.7	0.0	16.9	7.9	0.0	8.5			
27	0.0	5.5	11.6	4.4	20.4	36.6	0.0	0.0	0.0			
28	0.0	0.0	0.0	0.0	0.0	18.4	22.6	0.0	2.8			
29	0.0		0.0	0.0	0.0	0.0	0.0	6.3	0.0			
30	0.0		0.0	0.0	13.7	0.0	0.0	3.5	0.0			
31	0.0		0.0		18.3		29.9	0.0				
Total	11.7	32.0	81.6	117.1	196.3	344.4	323.8	96.5	85.0	-	-	-
Daily max	4.8	15.4	18.3	42.3	60.6	50.9	64.5	26.3	39.0	-	-	-
Days	3	5	12	8	12	18	13	8	8	-	-	-

Annual Total : - mm
Daily Maximum : - mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: MUANG KHOA
Year: 1991 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	9.4	0.0	2.6	0.0	6.2	0.0	6.6	0.0	0.0
2	0.0	0.0	0.0	12.0	14.4	0.0	0.0	13.0	0.0	17.5	0.0	0.0
3	0.0	0.6	0.0	1.5	0.0	13.6	5.5	0.0	0.0	0.0	23.0	0.0
4	1.0	0.0	0.0	0.0	5.9	5.7	3.1	0.0	46.7	2.5	4.8	0.0
5	0.0	0.0	0.0	5.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0	14.3
6	0.0	0.0	0.0	0.0	5.7	0.0	0.1	29.9	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	12.5	0.0	2.6	0.0	0.0	0.0	3.2	0.0
8	0.0	0.0	0.0	0.0	19.0	1.4	23.1	1.6	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	28.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	9.2	13.4	0.0	1.2	37.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.9	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	14.7	0.0	77.3	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	13.2	3.5	15.3	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	9.5	0.0	7.4	16.0	0.0	0.0	0.0	0.0
15	0.0	0.0	5.4	0.0	4.0	1.5	53.3	39.5	0.0	0.0	0.0	0.0
16	0.0	0.0	1.4	0.0	0.0	0.0	12.9	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	25.4	0.0	0.0	52.7	14.7	0.0	0.0	16.5	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	23.3	2.3	0.0	12.3	6.5	0.0	0.0
19	0.0	0.0	0.0	21.9	0.0	8.5	0.0	0.0	65.3	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	48.5	1.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	68.1	1.4	3.3	0.0	1.7	0.0	0.0
23	0.0	0.8	0.0	10.0	3.0	28.6	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	12.9	0.0	54.2	19.5	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	59.6	4.7	11.8	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	2.8	12.9	41.7	2.3	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	15.8	31.2	12.9	0.0	41.1	0.0	0.0	11.4
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	0.0	0.0	2.5
29	0.0		1.2	0.0	4.7	0.0	2.5	0.0	0.0	0.0	0.0	0.0
30	0.0		17.6	3.1	24.8	0.0	0.0	0.0	23.9	0.0	0.0	0.0
31	0.0		31.5		0.0		3.9	0.0		0.0		0.0
Total	1.0	1.4	82.5	127.3	170.7	435.7	177.2	253.4	238.6	51.3	31.0	28.2
Daily max	1.0	0.8	31.5	48.5	28.3	68.1	53.3	77.3	65.3	17.5	23.0	14.3
Days	1	2	6	10	15	18	19	13	7	6	3	3

Annual Total : 1598.3 mm
Daily Maximum : 77.3 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1980 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	5.6	0.0	1.3	0.0	3.0	6.4	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.5	16.6	0.0	4.8	37.7	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	41.6	0.0	0.0	80.2	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	9.3	0.1	0.0	0.0	24.5	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	1.8	15.2	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	10.4	58.6	0.0	2.4	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.6	5.8	4.2	3.9	0.0	0.0
8	0.0	0.0	0.0	14.0	0.0	4.2	0.4	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	6.2	11.0	16.4	2.4	0.0	29.6	0.0	0.0	0.0
10	0.0	0.0	0.0	0.2	23.6	6.9	0.0	0.0	6.8	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	1.7	24.8	0.0	0.0	18.6	33.2	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	15.1
13	0.0	0.0	0.0	0.0	0.0	37.9	5.6	0.0	0.0	0.0	0.0	1.2
14	0.0	0.0	0.0	0.0	0.0	35.6	2.3	0.0	4.4	0.0	0.0	0.0
15	0.0	0.0	39.6	0.0	0.0	3.6	1.4	0.0	15.4	0.6	0.0	0.0
16	0.0	0.0	0.0	8.2	11.6	11.0	0.5	5.4	30.4	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	15.8	3.7	0.0	0.0	3.2	0.0	0.0
18	0.2	0.0	0.0	3.8	0.0	7.8	2.3	8.0	0.0	22.4	0.0	0.0
19	0.0	0.0	0.0	1.0	33.7	10.6	23.9	0.2	0.0	49.4	0.0	0.0
20	0.0	0.0	0.0	1.8	1.0	0.6	27.0	4.7	0.0	0.3	0.0	0.0
21	0.0	34.2	0.0	18.2	0.0	31.6	6.3	0.0	0.0	0.0	0.0	0.0
22	0.0	0.2	0.0	0.0	1.6	1.4	1.8	29.2	0.0	0.0	0.0	0.0
23	0.0	2.8	0.0	0.0	4.2	3.2	36.2	6.6	0.4	0.0	0.0	0.0
24	0.0	0.0	2.5	0.0	1.2	18.1	26.4	6.5	0.0	0.0	18.9	0.1
25	0.0	0.0	0.0	4.8	2.4	13.1	30.3	1.0	0.0	0.0	3.1	0.2
26	0.0	0.0	30.6	0.0	14.7	4.6	17.8	12.4	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	1.8	15.4	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.8	0.6	12.9	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	1.3	0.0	2.1	16.1	1.9	0.0	0.2	0.5	0.0	0.0
30	0.0		0.0	0.0	4.2	2.0	8.9	24.5	0.0	0.0	0.0	0.0
31	0.0		0.0		6.9		15.0	68.2		0.0		0.0
Total	0.2	37.2	74.0	63.8	130.5	330.9	255.2	254.1	258.8	115.9	22.0	16.6
Daily max	0.2	34.2	39.6	18.2	33.7	41.6	36.2	68.2	80.2	49.4	18.9	15.1
Days	1	3	4	10	17	27	24	16	13	9	2	4

Annual Total : 1559.2 mm
Daily Maximum : 80.2 mm

Source: Lower Mekong Hydrologic Yearbook 1980, Interim Committee for Co-ordination of Investigations of the Lower Mekong Basin

DAILY PRECIPITATION

Station: LUANG PRABANG
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	17.9	5.3	0.0	17.4	6.5	3.9	0.0	0.0
2	0.0	0.0	0.0	7.1	0.0	0.6	8.3	2.5	24.1	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	28.3	1.5	8.5	19.5	1.3	38.8	0.0	0.0
4	0.0	0.0	0.0	0.0	38.6	0.3	53.6	10.7	4.0	180.7	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	6.8	5.3	40.4	28.1	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	10.9	0.6	30.8	12.1	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.2	5.6	0.1	1.9	0.0	0.8	0.0
8	0.0	0.0	0.0	0.0	1.0	0.0	3.1	0.7	0.0	2.4	2.4	0.0
9	0.0	0.0	0.0	11.2	0.0	7.6	35.1	23.4	0.8	58.3	0.0	0.0
10	0.0	0.0	0.0	5.3	0.0	14.0	11.2	17.8	57.2	1.2	0.0	0.0
11	0.0	0.0	0.0	0.0	7.2	0.0	8.0	19.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.9	4.3	48.5	1.4	1.5	0.0	3.8	0.0	0.0
13	0.0	0.0	0.0	19.4	0.0	2.7	3.3	0.0	6.8	0.0	0.0	0.0
14	0.0	0.0	2.2	0.0	8.1	0.0	0.0	0.0	0.0	0.0	0.6	0.0
15	0.0	0.0	0.0	0.0	0.0	1.7	4.3	0.0	0.0	3.1	0.0	0.0
16	0.0	0.0	0.0	56.3	3.5	0.7	24.5	1.1	0.0	7.3	12.7	0.0
17	0.0	0.0	0.0	8.6	0.0	0.7	0.0	0.0	0.0	0.0	14.1	0.0
18	0.0	0.0	0.0	0.0	20.0	66.1	4.1	20.3	0.0	0.6	0.5	0.0
19	0.0	0.0	0.0	0.0	26.8	6.5	1.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	17.3	73.7	22.2	11.8	1.1	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	29.6	14.1	6.5	5.3	4.4	1.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	11.6	18.6	0.0	1.4	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	5.7	3.5	0.0	1.7	0.0	14.8	0.2	0.0
24	0.0	0.0	0.0	0.0	14.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	1.9	0.0	1.6	1.2	9.1	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	38.5	0.6	0.0	12.8	20.5	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	1.2	8.8	47.4	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	13.9	0.0	0.6	5.2	1.3	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.3	0.1	0.5	11.9	1.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.2	14.7	12.9	0.0	0.0	0.0	0.0
31	0.0		7.7		0.0		13.3	47.6		0.0		0.0
Total	0.0	0.0	11.8	208.4	277.5	210.9	282.6	279.2	174.8	355.1	31.3	0.0
Daily max	0.0	0.0	7.7	56.3	73.7	66.1	53.6	47.6	57.2	180.7	14.1	0.0
Days	0	0	3	12	18	23	25	24	11	13	7	0

Annual Total : 1831.6 mm
Daily Maximum : 180.7 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1982 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.5	0.0	16.3	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	12.6	0.0	0.7	0.0	0.0	0.0
3	0.0	0.0	0.0	12.7	0.0	7.0	0.5	0.2	3.0	0.3	0.0	0.0
4	0.0	0.0	0.0	8.5	21.7	0.0	2.1	0.0	4.2	0.0	0.2	0.0
5	0.0	1.0	0.0	0.4	27.0	0.0	22.7	8.5	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	10.1	7.2	12.2	0.6	0.3	0.0	0.0	0.0
7	0.0	0.0	0.0	9.0	0.0	15.9	9.9	1.1	0.8	0.1	0.0	0.0
8	0.0	0.0	0.0	7.4	0.0	10.8	1.9	14.7	0.0	1.0	0.0	0.0
9	0.0	0.0	0.0	0.3	0.0	43.3	5.1	22.3	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.9	0.0	4.9	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	48.5	3.6	28.0	4.7	4.5	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	6.5	0.0	26.1	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	11.9	4.2	0.0	8.1	0.0	0.0	0.2	0.0
14	0.0	0.0	0.0	24.1	0.0	0.0	2.0	4.5	25.2	0.0	0.0	0.0
15	0.0	0.0	0.0	4.1	0.0	0.0	26.0	30.6	35.0	0.0	0.0	0.0
16	0.0	0.0	0.0	12.4	0.0	0.0	0.0	7.0	14.4	0.0	0.3	0.0
17	11.8	0.0	0.0	18.3	0.0	0.0	0.0	31.0	4.8	0.0	0.0	0.0
18	0.4	0.0	0.0	0.3	0.0	0.0	11.2	8.1	7.2	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	30.7	0.0	0.0	5.5	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	12.1	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	21.7	10.3	0.3	0.0	0.0	0.0
22	0.0	0.0	0.0	6.5	12.6	0.0	4.9	1.3	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	1.8	37.4	48.5	0.0	2.7	1.1	0.0	31.7	0.0
24	0.0	0.0	0.0	10.8	22.6	0.0	0.8	0.0	7.1	5.7	0.0	0.0
25	0.0	0.0	0.0	7.3	0.0	0.6	0.0	0.0	2.2	1.0	0.0	0.0
26	0.0	0.0	0.0	0.5	20.1	0.0	8.5	2.2	38.1	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	19.1	0.0	0.0	0.0	5.9	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	6.6	0.0	3.9	0.0	0.2	0.0	0.0	0.0
29	0.0		0.0	0.0	4.9	0.0	4.4	0.0	5.7	0.0	0.8	0.0
30	0.0		18.9	0.0	0.4	0.0	5.8	0.0	5.6	0.0	2.6	0.0
31	0.0		4.6		0.3		7.8	0.0		0.0		0.0
Total	12.2	1.0	23.5	127.4	225.4	193.4	167.6	232.5	178.6	28.9	35.8	0.0
Daily max	11.8	1.0	18.9	24.1	37.4	48.5	26.0	31.0	38.1	16.3	31.7	0.0
Days	2	1	2	17	14	11	20	22	21	7	6	0

Annual Total : 1226.3 mm
Daily Maximum : 48.5 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1983 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	0.0	0.8	0.0	0.0	10.5	1.7	9.4	0.0	0.0
2	0.0	0.0	0.0	0.0	4.5	0.0	6.1	23.4	0.0	11.3	0.0	0.0
3	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	22.9	11.0	0.0
4	26.0	0.0	2.8	0.0	27.3	0.0	0.0	19.5	0.5	11.9	0.8	0.0
5	16.5	0.0	12.6	0.0	0.0	0.0	0.0	6.4	0.0	3.3	0.0	0.0
6	10.2	0.0	0.4	0.0	3.5	0.0	0.0	2.8	1.9	0.0	0.0	0.0
7	0.1	0.0	13.6	0.0	5.5	1.4	0.0	5.4	1.8	0.0	0.0	0.0
8	0.0	0.0	3.0	0.0	0.0	42.8	0.0	0.0	0.4	14.3	0.3	0.0
9	0.0	0.0	0.0	0.0	0.0	0.4	0.0	4.7	0.0	0.0	3.4	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	65.0	44.5	18.1	0.5	0.0	0.0
11	0.0	0.0	0.0	0.0	2.2	10.7	0.0	6.8	5.6	0.2	8.7	0.0
12	0.0	0.0	0.0	0.0	0.0	2.5	0.0	3.8	7.0	0.0	18.1	0.0
13	0.0	0.0	0.0	0.0	34.6	3.5	0.0	4.0	1.6	0.0	0.1	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.2	0.1	0.8	0.0
16	0.0	0.0	11.4	0.0	11.6	0.0	15.3	1.3	1.0	2.8	1.7	0.0
17	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	10.3	0.0	0.0
18	0.0	0.0	0.0	0.0	2.8	0.0	32.7	2.7	0.0	0.3	0.0	0.0
19	0.0	14.1	0.0	0.3	35.8	0.0	17.5	42.9	0.0	0.2	0.0	0.0
20	15.9	4.8	0.0	4.5	0.0	0.7	1.8	37.3	0.0	0.0	0.0	0.0
21	1.7	0.4	0.0	1.0	0.0	0.0	0.0	10.8	4.9	0.0	0.0	0.0
22	0.0	1.0	0.0	13.1	0.0	4.0	1.7	0.0	0.0	0.2	0.0	0.0
23	0.0	0.0	0.0	1.2	0.0	4.5	0.0	3.4	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	2.2	0.0	0.0	3.6	30.2	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.8	3.9	107.1	0.3	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	41.4	0.0	21.7	0.0	0.3	0.0	0.0
27	0.0	14.1	0.0	0.0	11.4	37.8	20.0	14.7	1.9	1.4	0.0	0.0
28	0.0	0.0	0.0	0.0	0.7	3.0	30.8	0.0	0.0	0.9	0.0	22.6
29	0.0		0.0	2.3	14.1	3.9	14.9	1.1	0.0	0.0	0.0	1.9
30	0.0		0.0	5.9	14.2	0.3	0.0	8.0	0.0	0.0	0.0	0.0
31	0.0		0.0		0.0		1.7	0.0		1.8		0.0
Total	73.4	34.4	47.3	30.5	169.0	157.7	221.7	413.0	57.1	110.3	44.9	24.5
Daily max	26.0	14.1	13.6	13.1	35.8	42.8	65.0	107.1	18.1	22.9	18.1	22.6
Days	7	5	7	8	14	15	14	23	15	19	9	2

Annual Total : 1383.8 mm
Daily Maximum : 107.1 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1984 (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	0.4	0.0	0.0	72.6	3.0	0.0	0.0
2	0.0	0.0	0.0	0.0	2.5	24.4	2.4	0.0	4.8	9.2	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	3.5	5.0	19.2	9.3	5.6	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	16.1	70.9	1.2	1.1	0.0	0.0
5	0.0	0.0	0.0	0.0	14.5	0.0	0.0	30.9	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	2.1	0.0	0.0	11.4	32.2	2.1	13.5	0.0	0.0
7	0.0	0.0	0.0	0.0	0.6	2.1	11.4	5.1	0.0	1.1	0.0	0.0
8	0.0	1.0	0.0	0.0	2.6	0.0	1.2	9.0	0.0	20.0	0.0	0.0
9	0.0	0.1	0.0	0.0	3.4	2.5	7.5	1.0	1.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	1.6	13.0	3.9	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	20.7	0.0	5.1	0.0	3.8	0.0	0.0
12	0.0	0.0	0.0	3.2	0.0	34.9	0.8	3.6	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	16.4	0.0	25.6	25.8	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	12.1	8.8	0.0	4.1	0.0	0.0
15	0.0	0.7	0.0	2.3	0.0	0.3	1.1	7.1	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	4.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	6.2	7.5	0.0	12.9	0.9	55.9	0.0	0.0
18	0.0	0.0	0.0	0.0	11.0	3.0	0.0	0.0	0.4	59.3	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.2	5.7	24.8	0.2	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0
21	0.0	0.0	34.8	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	30.7	0.0	2.7	0.3	0.6	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	26.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	14.9	14.1	0.0	4.3	0.0	0.0	0.0	0.0
26	0.0	3.8	0.0	2.3	0.5	51.8	0.0	9.3	4.9	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	2.1	16.1	0.4	5.0	0.0	0.0	0.0
28	0.0	0.0	0.0	2.8	4.9	0.0	2.8	0.0	0.0	0.0	1.1	0.0
29	0.0	0.0	0.0	0.5	5.7	0.0	0.0	5.7	0.0	0.0	0.0	0.0
30	0.0		0.0	0.0	3.9	0.0	4.8	1.5	0.6	0.0	0.0	0.0
31	0.0		0.0		6.0		0.0	0.0		0.0		0.0
Total	0.0	5.6	34.8	43.9	124.9	171.8	137.4	286.7	103.2	176.6	1.1	0.0
Daily max	0.0	3.8	34.8	30.7	26.0	51.8	25.6	70.9	72.6	59.3	1.1	0.0
Days	0	4	1	7	17	16	18	23	13	11	1	0

Annual Total : 1086.0 mm
Daily Maximum : 72.6 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1985 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	0.1	7.3	1.3	0.0	0.0	4.9	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0
3	0.0	0.0	0.0	26.9	0.0	0.0	0.0	2.3	0.5	0.0	0.0	0.0
4	0.0	0.0	0.0	2.3	0.0	0.9	0.6	35.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	8.3	6.8	17.1	0.0	0.0	0.0	0.0
6	0.0	0.0	0.4	0.0	0.0	0.0	9.2	0.5	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	9.3	0.0	0.3	0.0	0.0	0.0
8	0.0	0.0	0.0	8.5	0.0	0.0	0.3	3.2	29.8	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	1.3	4.9	13.1	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.3	2.4	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	37.2	0.0	3.5	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	13.8	0.3	31.8	0.0	22.0	0.0
13	0.0	0.0	0.0	0.0	0.0	18.9	8.5	13.7	0.2	9.5	7.1	0.0
14	0.0	0.0	0.0	0.4	0.0	7.5	0.0	6.2	2.2	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	5.5	33.2	5.6	0.0	12.1	0.0
16	0.0	0.4	0.0	16.7	11.2	1.8	0.0	2.4	0.0	0.0	22.2	0.0
17	0.0	29.7	0.0	0.4	0.0	1.0	13.3	11.5	0.0	2.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0	0.0	0.4	0.4	0.0
19	0.0	0.0	0.0	0.0	31.0	5.7	0.0	0.0	0.0	5.2	1.1	0.0
20	0.0	0.0	0.0	0.0	9.6	7.1	2.1	0.3	0.0	5.0	2.9	0.0
21	0.0	0.0	0.0	0.0	0.0	5.2	3.5	35.2	0.0	0.0	67.8	0.0
22	0.0	0.0	0.0	0.0	13.3	10.6	0.7	14.6	0.0	0.0	0.0	0.0
23	0.0	1.6	0.0	1.1	0.5	0.0	0.0	0.1	0.0	0.3	0.0	0.0
24	4.9	0.0	0.0	31.0	30.2	0.6	0.8	0.8	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	36.6	9.8	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	1.9	0.2	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	5.4	2.1	4.2	47.8	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.4	18.0	9.7	30.5	0.0	0.0	0.0	0.0
29	0.0		0.0	5.3	0.9	7.4	0.9	24.8	0.0	0.0	23.3	0.0
30	0.0		0.3	3.0	0.8	0.4	3.3	4.1	0.0	0.0	10.4	0.0
31	0.0		17.0		5.8		7.4	0.6		0.0		0.0
Total	4.9	31.7	17.7	132.3	126.2	116.1	141.8	292.6	103.7	22.4	169.3	0.0
Daily max	4.9	29.7	17.0	36.6	31.0	19.3	37.2	47.8	31.8	9.5	67.8	0.0
Days	1	3	3	12	13	17	22	24	12	6	10	0

Annual Total : 1158.7 mm
Daily Maximum : 67.8 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1986 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	9.4	0.0	0.0	0.0	0.0	43.7	0.0	0.0	0.0	0.0
2	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	51.6	0.0	4.8	0.0	4.0	29.8	0.0
4	0.0	0.0	0.0	6.6	6.4	1.6	0.0	13.8	0.0	0.0	2.7	2.0
5	0.0	0.0	0.0	0.6	3.4	0.0	13.2	0.9	0.0	0.0	0.0	7.7
6	0.0	0.0	0.0	0.0	4.0	0.0	15.2	20.0	30.9	6.6	0.0	0.0
7	0.0	0.0	0.0	0.8	36.3	6.5	0.0	0.4	6.7	0.0	0.0	0.0
8	0.0	0.0	0.0	59.0	1.1	2.4	38.8	0.0	3.2	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	20.0	1.9	28.0	0.0	0.0	0.3	0.1	0.0
10	0.0	0.0	0.0	0.0	42.0	0.0	19.8	63.6	0.0	51.0	0.0	0.0
11	0.0	0.0	0.0	0.0	2.3	18.2	0.0	0.4	4.1	0.0	0.0	0.0
12	0.0	0.0	0.0	20.7	0.0	53.4	0.0	0.0	0.8	0.0	0.0	1.0
13	0.0	0.0	0.0	15.2	3.1	15.4	0.0	2.0	0.3	60.5	0.0	0.0
14	0.0	0.0	0.0	30.2	0.0	15.2	20.8	2.5	0.0	93.0	0.0	0.0
15	0.0	0.0	0.0	0.3	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	27.7	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.9	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	3.4	0.0	20.2	0.0	0.0	1.1	0.0	5.0	0.0
20	0.0	0.0	0.0	0.5	0.0	2.5	59.5	0.1	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	12.0	0.0	71.2	0.2	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	1.4	0.0	9.8	19.2	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	6.2	148.4	8.2	6.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	2.0	17.7	6.8	14.3	12.5	0.0	43.0	0.0	0.0
25	0.0	0.0	0.0	16.9	36.6	0.0	12.0	17.5	0.0	8.8	0.0	0.0
26	0.0	0.0	0.0	0.0	9.0	0.0	35.9	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.9	0.0	1.0	0.0	0.0	0.0	0.0	17.0	0.0
28	0.0	0.0	0.0	4.0	13.4	0.0	2.0	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	45.3	0.0	2.1	2.8	1.0	0.0	0.0	0.0	0.0
30	0.0		0.0	33.2	0.0	0.0	0.0	0.0	14.0	0.0	0.0	4.6
31	0.0		0.0		0.0		0.0	0.0		0.0		12.2
Total	0.0	0.0	10.4	267.3	214.9	373.4	352.0	210.4	62.0	267.2	54.6	27.5
Daily max	0.0	0.0	9.4	59.0	42.0	148.4	71.2	63.6	30.9	93.0	29.8	12.2
Days	0	0	2	17	16	18	16	18	9	8	5	5

Annual Total : 1839.7 mm
Daily Maximum : 148.4 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1987 (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	0.2	1.5	7.8	0.0	0.0	0.0
2	2.2	0.0	13.7	0.0	0.0	12.6	0.0	0.0	4.5	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	6.5	0.5	0.0	0.0	0.0	0.0	50.3	0.0
4	0.0	0.0	4.6	0.0	40.0	0.0	0.0	0.0	30.5	0.0	0.0	0.0
5	0.0	0.0	1.8	0.0	6.5	0.0	25.2	0.0	0.0	22.4	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	0.0	0.0	0.0
7	0.0	15.7	0.0	36.8	0.0	10.2	3.0	6.2	0.0	0.0	35.1	0.0
8	0.0	0.0	0.0	0.0	0.0	42.7	0.0	11.3	0.0	1.5	8.4	0.0
9	0.0	1.0	0.0	0.0	0.0	2.4	0.0	15.6	0.0	4.2	0.3	0.0
10	0.0	4.2	0.0	2.9	0.0	2.3	1.1	18.3	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	0.7	0.0	1.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	1.3	0.0	1.0	18.8	0.0	0.0	4.1	0.0
14	0.0	0.0	0.0	0.0	0.0	1.0	0.8	0.0	0.4	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	3.7	1.0	0.0	23.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.3	5.1	0.4	14.9	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.1	0.0	0.0	0.7	0.0
18	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.7	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	16.0	0.0	1.4	0.0	0.9	1.1	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	19.1	0.0	0.0	17.5	0.0	0.0	0.0
21	0.0	0.0	0.0	12.9	0.0	0.0	0.0	25.1	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	1.4	5.6	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	2.8	0.0	43.8	17.3	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	3.3	1.7	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	11.3	0.0	8.3	15.7	0.0	37.5	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	10.9	0.0	7.8	0.0	0.0	0.0
27	0.0	8.1	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	1.0	0.0	8.2	2.1	0.0	0.0	0.0	0.0	0.0
29	0.0		8.0	64.6	0.0	1.2	0.5	2.1	0.0	0.0	0.0	0.0
30	0.0		19.5	0.0	0.0	2.1	19.9	41.1	0.0	0.0	0.0	0.0
31	0.0		0.0	0.0	0.0		44.1	6.3		0.0	0.0	0.0
Total	2.2	29.0	47.6	145.5	57.4	122.5	180.2	193.5	130.9	28.1	98.9	0.0
Daily max	2.2	15.7	19.5	64.6	40.0	42.7	44.1	41.1	37.5	22.4	50.3	0.0
Days	1	4	5	7	6	17	20	18	10	3	6	0

Annual Total : 1035.8 mm
Daily Maximum : 64.6 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1988 (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	2.2	0.0	9.6	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	14.0	1.3	29.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.9	3.1	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	2.7	2.7	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	1.3	8.6	12.3	10.1	1.9	37.5	0.0	0.0
6	0.0	0.0	0.0	0.0	22.6	0.0	1.0	12.0	0.0	0.0	0.0	0.0
7	0.0	0.0	1.5	0.0	20.0	0.0	0.0	38.9	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.4	0.0	123.8	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.5	16.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	18.5	0.0	0.0	4.9	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	6.9	20.8	0.0	3.1	0.0	0.0
12	0.0	0.0	0.0	38.3	0.0	0.0	0.0	0.0	2.9	0.5	0.0	0.0
13	0.0	0.0	0.0	3.3	0.0	10.3	0.0	8.7	1.8	0.5	0.0	0.0
14	0.0	0.0	0.0	20.4	1.9	19.7	18.8	10.8	2.2	0.0	0.0	0.0
15	0.0	0.0	0.0	10.6	35.5	0.0	0.4	1.7	3.3	0.0	2.4	0.0
16	0.0	0.0	0.0	0.0	3.8	0.5	1.5	0.0	0.0	2.2	11.2	0.0
17	0.0	0.0	0.0	0.0	34.8	1.5	1.1	8.6	0.0	1.8	1.5	0.0
18	0.0	31.2	0.0	19.0	0.6	4.4	0.0	0.0	1.6	0.0	0.2	0.0
19	0.0	0.5	0.0	12.0	6.6	5.7	0.0	1.2	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	1.8	29.5	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.4	0.0	5.3	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	18.0	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	48.6	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	20.4	5.7	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	31.4	12.4	19.3	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	2.6	0.6	14.1	0.0	0.0	6.4	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	17.0	24.5	1.1	0.0	0.0	0.0	0.0
30	0.8	0.0	0.0	0.0	0.0	1.3	40.3	1.1	0.0	0.0	0.0	0.0
31	0.0		0.0		15.6		16.5	10.0		0.0		0.0
Total	0.8	31.7	1.5	155.8	174.2	141.1	240.4	181.4	39.2	174.7	15.3	0.0
Daily max	0.8	31.2	1.5	38.3	35.5	19.7	48.6	38.9	16.0	123.8	11.2	0.0
Days	1	2	1	9	13	16	19	20	9	8	4	0

Annual Total : 1156.1 mm
Daily Maximum : 123.8 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1989 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	19.5	0.6	69.1	1.6	0.5	0.0	1.5	0.0	0.0
2	0.0	0.0	0.0	0.0	23.1	15.1	20.7	3.1	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.2	0.0	8.6	1.5	0.0	4.5	0.0	0.0
4	11.1	0.0	0.0	0.0	0.0	1.2	0.0	34.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	13.1	0.0	14.4	0.0	25.1	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	11.4	12.6	0.0	10.5	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	13.5	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.2	0.4	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	1.1	0.0	17.6	2.0	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	11.2	1.1	11.0	0.0	0.0	0.0	14.9	0.0
12	0.0	0.0	0.0	0.0	0.0	23.7	0.3	96.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	59.6	1.0	18.1	38.0	0.0	7.6	0.0	0.0
14	0.0	0.0	0.0	0.0	3.6	5.1	0.0	23.3	9.0	54.6	5.2	0.0
15	0.0	0.0	0.0	0.0	29.0	2.1	0.0	0.0	0.0	8.0	0.0	0.0
16	0.0	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	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	2.7	1.8	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	6.5	24.7	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	25.6	1.0	0.0	4.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	27.2	0.0	0.0	0.0	0.0	9.5	2.5	0.0	0.0	0.0
22	0.0	0.0	29.1	0.0	0.0	0.0	0.0	0.0	16.4	0.0	0.0	0.0
23	0.0	0.0	0.4	0.0	0.0	0.0	21.5	0.0	30.3	0.5	0.0	0.0
24	0.7	0.0	0.0	19.0	2.4	10.1	58.8	29.7	46.7	0.0	0.0	0.0
25	1.9	0.0	0.0	8.0	0.0	0.0	0.3	15.0	3.8	0.0	0.0	0.0
26	0.0	0.0	0.0	19.6	0.9	11.8	0.0	0.0	4.2	0.0	0.0	0.0
27	0.0	0.0	0.0	50.1	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	9.3	4.4	1.1	0.5	0.0	0.0	7.5	0.0	0.0
29	0.0		0.0	6.9	6.2	0.0	32.7	0.4	2.5	1.4	0.0	0.0
30	0.0		0.0	0.0	0.3	0.0	43.4	3.1	0.0	0.0	0.0	0.0
31	0.0		8.1		0.1		11.0	0.0		0.0		0.0
Total	13.7	0.0	69.1	132.4	156.3	154.2	287.4	288.9	160.8	130.5	21.9	0.0
Daily max	11.1	0.0	29.1	50.1	59.6	69.1	58.8	96.0	46.7	54.6	14.9	0.0
Days	3	0	6	7	16	14	18	15	14	12	3	0

Annual Total : 1415.2 mm
Daily Maximum : 96.0 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: LUANG PRABANG
Year: 1990 (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	28.7	3.9	11.0	60.2	6.5	0.0	0.0
2	0.0	0.0	0.0	0.0	1.6	47.1	19.0	1.0	6.2	2.1	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	17.3	15.4	17.9	5.5	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	1.7	1.1	10.8	0.0	22.0	1.4	0.0	0.0
5	7.6	0.0	0.0	42.0	1.3	0.0	11.1	0.0	0.0	2.0	9.3	0.0
6	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	17.9	0.0	0.0
7	0.0	0.0	21.9	0.0	5.1	0.0	0.0	1.5	50.0	8.3	0.6	0.0
8	0.0	0.0	8.3	1.0	5.1	2.5	0.0	71.0	1.4	0.0	166.0	0.0
9	0.0	0.0	0.0	0.0	0.9	14.7	0.0	0.0	0.0	0.0	17.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.5	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	7.0	1.9	3.3	36.3	0.0	0.0	0.0	0.0
12	0.0	36.4	12.0	0.0	0.0	0.0	0.0	0.6	7.0	0.0	0.0	0.0
13	0.0	0.0	9.5	1.0	0.0	0.0	9.9	2.4	9.6	0.0	0.0	0.0
14	0.0	0.0	24.6	0.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	5.5	0.4	1.9	0.0	0.5	0.0	0.0	0.0
16	2.1	1.3	0.0	0.0	0.0	14.1	0.0	0.0	0.8	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.5	0.0	0.0	0.0
18	0.0	0.0	1.5	0.0	0.5	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	46.9	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	10.9	31.5	22.1	0.0	14.5	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	10.6	1.4	11.0	0.0	1.0	0.0	0.0	0.0
22	0.0	0.0	0.0	1.2	0.0	4.7	2.0	12.3	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0
24	0.0	11.0	0.0	2.5	7.1	0.0	0.8	6.2	26.8	0.0	0.0	0.0
25	0.0	1.9	0.0	50.5	3.2	2.5	9.2	24.5	2.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.7	0.0	2.4	1.1	4.5	6.5	0.0	0.0	0.0
27	0.0	0.0	0.0	23.9	0.0	4.9	8.5	0.0	1.9	0.0	0.0	0.0
28	0.0	0.0	0.0	4.2	10.3	2.5	6.6	0.0	29.0	0.0	0.0	0.0
29	0.0		0.0	0.0	3.3	5.5	59.7	10.9	10.0	0.0	0.0	0.0
30	0.0		0.0	0.0	5.1	0.0	52.4	4.5	6.5	22.9	6.5	0.0
31	0.0		0.0		1.6		23.9	0.0		0.0		0.0
Total	9.7	50.6	77.8	127.9	113.4	183.2	329.3	208.3	262.4	61.1	199.4	0.0
Daily max	7.6	36.4	24.6	50.5	29.0	47.1	59.7	71.0	60.2	22.9	166.0	0.0
Days	2	4	6	10	19	17	21	15	21	7	5	0

Annual Total : 1623.1 mm
Daily Maximum : 166.0 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: XIENG KHUANG
Year: 1982 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	12.2	17.6	0.4	0.2	6.2	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	11.0	1.8	0.0	1.0	0.0	20.6	0.0	0.0	0.0
3	0.0	0.0	0.0	23.8	0.0	40.0	0.3	5.0	2.5	2.2	0.0	0.0
4	0.0	0.0	0.0	0.0	6.8	8.4	1.0	12.0	4.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.1	43.0	1.6	38.8	32.2	0.0	0.0	4.0	0.0
6	0.0	1.1	0.0	0.0	19.6	11.0	14.4	0.2	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	2.2	11.2	11.8	6.6	1.6	4.0	0.0	9.7	0.0
8	0.0	0.0	0.0	1.0	1.0	8.0	3.0	59.8	15.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.6	0.0	22.6	0.1	42.2	10.7	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	15.0	0.0	16.6	0.0	1.5	0.0	0.0
11	0.0	0.0	0.0	7.2	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	4.6	2.8	29.8	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	2.3	0.0	0.0	0.0	21.2	0.0	0.0	2.0	0.0
14	0.0	0.0	0.0	31.6	14.4	6.1	6.8	13.5	0.6	0.0	0.0	0.0
15	0.0	0.0	0.0	4.0	0.0	0.0	0.0	1.9	44.2	0.0	0.8	0.0
16	0.0	0.0	0.0	9.6	0.0	0.2	3.2	5.4	15.0	0.0	0.0	0.0
17	3.6	0.0	0.0	0.0	0.0	0.0	0.0	9.0	13.6	0.0	1.0	0.0
18	2.0	0.0	3.0	16.2	4.2	0.0	0.0	11.5	0.6	3.3	0.0	0.0
19	0.0	0.0	0.0	0.0	0.6	0.9	0.2	7.6	0.0	8.5	0.0	0.0
20	0.0	0.0	0.0	0.0	1.1	0.2	0.0	44.1	58.0	12.4	0.0	0.0
21	0.0	0.0	0.0	1.6	3.6	0.1	0.0	4.4	2.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.1	15.5	0.0	8.4	9.6	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	24.8	1.6	10.6	32.6	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	5.8	1.2	0.0	4.9	0.0	0.0	0.0
25	0.0	0.0	31.9	15.4	0.0	2.4	0.6	0.0	11.8	10.0	0.0	0.0
26	0.0	0.0	0.0	0.8	0.0	4.0	17.2	0.0	3.8	0.0	0.0	0.0
27	0.0	0.0	76.8	1.1	0.0	4.4	0.1	0.2	34.4	0.3	0.0	0.0
28	0.0	0.0	25.8	0.0	9.9	4.8	0.1	3.4	82.9	0.0	1.4	0.0
29	0.0		7.2	0.0	2.2	0.2	2.4	0.0	6.6	0.0	0.8	0.0
30	0.0		10.5	17.6	8.4	0.2	1.2	0.0	2.6	0.0	2.2	0.0
31	0.0		7.2		0.4		4.5	0.0		0.0		0.0
Total	5.6	1.1	162.4	158.3	145.9	193.0	107.3	347.8	380.0	38.2	21.9	0.0
Daily max	3.6	1.1	76.8	31.6	43.0	40.0	38.8	59.8	82.9	12.4	9.7	0.0
Days	2	1	7	18	17	24	22	24	22	7	8	0

Annual Total : 1561.5 mm
Daily Maximum : 82.9 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: XIENG KHUANG
Year: 1983 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	0.0	0.9	0.0	0.0	4.6	0.0	2.7	0.0	0.0
2	0.0	0.0	0.0	0.0	0.6	0.0	0.0	2.6	0.6	0.1	0.0	0.0
3	11.0	0.0	0.0	0.0	5.9	0.0	0.0	10.6	1.4	25.4	3.0	0.0
4	13.2	0.0	0.0	0.0	33.4	0.8	0.0	1.2	3.2	21.6	0.0	0.0
5	4.7	0.0	0.0	0.0	8.6	0.0	0.0	21.0	6.4	4.7	0.0	0.0
6	1.0	0.0	3.5	0.0	3.8	18.9	12.0	0.0	2.7	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.7	0.0	3.5	6.8	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	3.0	2.2	0.0	4.8	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.6	4.3	0.0	10.0	0.0	4.4	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.7	2.4	0.0	1.2	0.0
12	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	12.5	0.0	4.4	0.0
13	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.1	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	23.7	0.0	73.1	0.0	0.3	17.4	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	31.7	1.6	0.1	5.6	0.0	0.0
18	0.0	0.0	0.0	42.6	0.0	0.0	65.3	52.3	3.8	3.1	0.0	0.0
19	0.0	0.0	0.0	4.1	4.8	0.0	6.1	1.4	0.0	0.0	0.0	0.0
20	0.0	7.8	0.0	2.4	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0
21	2.4	0.0	0.0	11.4	0.0	13.0	0.0	1.6	0.1	0.0	0.0	0.0
22	5.6	0.0	0.0	0.6	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	4.6	0.0	3.0	0.0	4.9	22.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	6.1	0.0	0.0	5.3	4.6	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.2	47.1	0.0	0.0	0.0	0.0
26	0.0	1.5	0.0	0.0	0.0	1.0	23.7	53.5	0.0	4.0	0.0	0.0
27	0.0	3.6	0.0	0.0	0.4	2.1	11.1	4.6	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	9.0	1.0	2.1	0.8	0.0	0.3	0.0	8.5
29	0.0		0.0	0.5	2.4	0.2	1.4	26.0	0.0	0.0	0.0	1.0
30	0.0		0.0	8.2	0.0	10.8	0.0	6.3	0.0	0.1	0.0	0.0
31	0.0		7.4		0.0		1.0	0.0		0.0		0.0
Total	37.9	17.5	34.6	78.9	157.5	70.3	219.6	300.4	40.1	72.0	8.6	9.5
Daily max	13.2	7.8	23.7	42.6	73.1	18.9	65.3	53.5	12.5	25.4	4.4	8.5
Days	6	4	3	9	15	14	15	23	12	11	3	2

Annual Total : 1046.9 mm
Daily Maximum : 73.1 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: XIENG KHUANG
Year: 1984 (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	7.7	0.0	12.2	3.4	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	34.6	5.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.8	4.0	34.4	8.4	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	3.0	0.2	1.3	10.7	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	11.2	1.6	4.5	18.7	0.0	16.8	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	19.2	70.5	0.0	17.2	0.0	0.0
7	0.0	0.0	0.0	12.6	0.4	0.0	0.0	36.4	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	1.2	0.0	0.0	0.5	50.1	0.0	0.0	9.4	0.0
9	0.0	0.0	0.0	3.4	0.0	3.3	0.0	1.4	0.0	15.0	26.8	0.0
10	0.0	0.0	0.0	0.2	11.4	3.5	2.3	1.2	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	8.1	1.4	0.6	0.0	16.8	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	5.5	25.8	0.6	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	4.2	4.7	0.2	62.1	25.0	1.0	4.8	0.6	0.0
14	0.0	0.0	0.0	4.2	8.4	0.0	9.0	17.4	0.0	5.7	0.0	0.0
15	0.0	22.3	0.0	1.5	0.0	0.0	32.6	0.0	0.0	0.3	0.0	0.0
16	0.0	0.0	0.0	0.0	11.0	4.4	3.6	43.4	0.4	0.7	0.0	0.0
17	0.0	55.5	0.0	0.0	3.5	0.0	0.0	9.1	40.0	0.0	0.0	0.0
18	0.0	18.8	0.0	0.0	0.0	3.1	0.0	0.0	15.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	12.9	0.0	0.0	16.6	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	8.3	10.4	0.0	28.2	0.0	0.0	0.0
21	0.0	0.0	0.0	6.6	0.0	1.2	4.0	0.0	4.6	0.0	0.0	0.0
22	0.0	0.0	8.6	32.8	8.2	15.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	32.8	2.0	0.2	0.0	6.7	0.0	0.0	0.0
24	0.0	0.0	61.4	19.4	2.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	8.2	0.0	12.5	0.0	7.6	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	15.0	4.2	19.2	0.0	22.3	14.8	0.0	0.0	0.0
27	0.0	0.0	0.0	9.7	0.2	2.9	8.7	16.6	0.2	0.0	0.0	0.0
28	0.0	0.0	11.5	0.0	6.5	0.1	0.4	29.8	6.4	0.0	0.0	0.0
29	0.0	0.0	0.0	3.0	13.7	22.7	0.0	27.6	7.3	0.0	0.0	0.0
30	0.0		0.0	14.2	0.4	17.8	4.2	14.8	2.9	0.0	0.0	0.0
31	0.0		0.0		0.0		0.0	22.0		0.0		0.0
Total	0.0	96.6	81.5	136.2	121.8	145.3	202.1	460.3	199.3	85.7	36.8	0.0
Daily max	0.0	55.5	61.4	32.8	32.8	22.7	62.1	70.5	40.0	17.2	26.8	0.0
Days	0	3	3	15	16	21	20	22	16	10	3	0

Annual Total : 1565.6 mm
Daily Maximum : 70.5 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: XIENG KHUANG
Year: 1985 (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	20.0	0.0	27.2	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	5.1	15.6	0.6	0.8	1.5	0.0	0.0	0.0
3	0.0	0.0	0.0	14.2	0.0	0.0	27.6	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	13.9	0.0	0.0	25.8	1.8	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.1	0.5	0.8	3.4	8.2	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.4	4.5	0.0	0.0	0.0
7	0.0	0.0	1.2	0.0	7.8	0.0	8.7	0.8	0.4	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	10.9	25.1	36.8	0.0	0.0	0.0
9	0.0	0.0	0.5	0.0	10.1	0.4	14.7	0.0	2.4	0.0	0.8	0.0
10	0.0	0.0	0.0	0.0	0.2	2.0	4.0	0.5	10.8	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	18.5	5.7	22.7	46.6	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	58.5	1.0	9.5	7.3	14.6	0.0	9.7	0.0
13	0.0	0.0	0.0	2.4	0.1	9.2	2.0	14.3	0.0	0.0	0.1	0.0
14	0.0	0.1	0.0	0.0	33.2	14.6	7.3	2.2	20.6	0.0	0.0	0.0
15	0.0	0.0	0.0	5.6	0.0	26.8	0.0	48.2	1.8	0.0	0.2	0.0
16	0.0	3.4	0.0	11.9	3.3	5.8	7.3	0.8	0.0	17.3	2.5	0.0
17	0.0	0.0	0.0	0.6	0.0	1.2	16.6	0.0	0.0	7.5	0.0	0.0
18	0.0	0.0	0.0	1.8	0.0	6.6	0.0	0.0	0.0	2.0	0.0	0.0
19	0.0	0.0	0.0	0.0	12.0	0.0	0.0	27.2	0.0	5.4	1.0	0.0
20	0.0	0.0	0.0	0.0	7.2	0.1	0.8	6.9	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.4	0.0	18.7	0.0	22.7	0.0	3.6	0.0	0.0
22	0.0	0.0	0.0	3.1	0.0	31.3	0.2	26.8	14.4	2.1	0.0	0.0
23	0.0	3.2	0.0	0.5	0.7	1.2	17.4	5.1	5.0	0.0	0.0	0.0
24	9.4	0.0	0.0	37.8	1.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0
25	0.4	0.0	0.1	0.1	0.0	4.7	7.2	5.5	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	1.0	0.0	2.0	0.6	29.0	0.0	34.5	0.0	0.0
27	0.0	0.0	0.0	0.0	8.3	0.6	3.3	14.8	0.0	0.1	0.0	0.0
28	0.0	0.0	0.0	0.0	1.6	1.8	41.5	3.4	0.0	0.0	18.5	0.0
29	0.0		0.0	14.2	3.2	9.3	56.5	0.0	0.0	0.0	0.0	0.0
30	0.0		0.0	0.1	9.6	15.5	30.2	9.9	0.0	4.8	6.2	0.0
31	0.0		0.1		4.3		10.8	30.4		0.0		0.0
Total	9.8	6.7	1.9	107.6	166.3	187.4	330.9	316.3	194.8	77.3	39.0	0.0
Daily max	9.4	3.4	1.2	37.8	58.5	31.3	56.5	48.2	46.6	34.5	18.5	0.0
Days	2	3	4	15	18	22	26	25	14	9	8	0

Annual Total : 1438.0 mm
Daily Maximum : 58.5 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: XIENG KHUANG
Year: 1986 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	7.8	0.0	2.1	0.3	0.0	8.6	2.2	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	1.6	0.0	0.1	0.0	2.4	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.5	0.0	0.0	0.7
4	0.0	0.0	0.0	24.0	32.7	2.2	0.4	0.0	0.0	0.0	0.0	1.2
5	0.0	0.0	0.0	0.0	9.2	13.3	4.3	42.2	13.6	0.0	0.0	1.9
6	0.0	0.0	0.0	0.4	0.7	13.1	0.0	3.9	22.1	0.0	0.0	7.4
7	0.0	0.0	0.0	5.2	11.6	3.8	0.0	6.5	7.6	0.0	0.0	3.3
8	0.0	0.0	0.0	0.0	5.9	0.0	0.6	0.0	0.5	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	33.8	0.3	36.3	0.0	17.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.1	24.1	0.0	9.3	2.8	1.8	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	38.6	19.4	0.0	0.0	0.0	0.6	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	46.5	47.8	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	3.1	4.9	33.4	0.0	0.0	0.1	0.0	0.0
14	0.0	0.0	0.0	7.6	35.1	3.2	24.9	1.6	10.2	6.2	0.0	0.0
15	0.0	0.0	0.0	4.5	32.8	0.0	0.0	13.8	11.6	0.0	0.0	0.0
16	0.0	0.0	0.0	1.4	4.2	2.5	0.0	6.2	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	16.1	0.0	0.0	0.0
18	0.0	0.0	0.0	18.7	13.0	5.8	0.0	1.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	8.0	34.4	6.7	4.2	8.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	41.7	22.4	18.8	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	1.3	9.1	0.0	97.1	10.6	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	6.5	16.6	4.2	6.6	11.0	0.0	0.2	0.0	0.0
23	0.0	0.0	0.0	0.6	11.5	5.3	0.6	9.4	0.0	7.5	0.0	0.0
24	0.0	0.0	0.0	0.0	8.8	1.9	29.6	10.9	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	6.4	17.0	18.3	0.3	0.6	0.0	0.6	0.0	0.0
26	0.0	0.0	0.0	1.2	14.7	1.3	0.0	8.2	0.0	0.0	0.3	0.0
27	0.0	2.5	0.0	3.0	5.5	22.4	4.2	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	1.6	7.8	2.6	0.2	0.0	0.0	0.0	0.0	0.0
29	0.0		0.0	46.9	0.0	0.0	0.0	0.0	17.7	0.0	0.0	0.0
30	0.0		0.0	7.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0
31	0.0		0.0		11.0		3.2	25.1		0.0		0.0
Total	0.0	2.5	7.8	144.4	426.6	234.2	328.3	170.4	123.3	15.2	0.3	14.5
Daily max	0.0	2.5	7.8	46.9	41.7	46.5	97.1	42.2	22.1	7.5	0.3	7.4
Days	0	1	1	18	26	23	20	17	13	6	1	5

Annual Total : 1467.5 mm
Daily Maximum : 97.1 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: XIENG KHUANG
Year: 1987 (Unit: ■■)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	0.0	0.0	50.1	4.2	15.9	13.4	5.8	0.0	0.0
2	0.0	0.0	3.4	0.0	0.0	0.8	0.0	13.7	0.9	1.0	5.1	0.0
3	0.0	0.0	1.8	0.0	8.6	0.9	6.6	0.0	42.2	3.4	1.0	0.0
4	0.0	0.0	0.0	0.0	28.7	0.0	12.6	0.0	2.2	0.0	0.0	0.0
5	0.0	0.0	1.4	0.0	8.5	12.6	4.3	14.6	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	9.8	0.1	1.0	0.1	0.0	0.0	0.1	0.0	0.0
7	0.0	0.0	0.0	26.7	0.0	0.0	0.0	2.0	0.0	0.1	0.2	0.0
8	0.0	0.0	0.0	0.0	3.2	19.6	12.2	14.9	0.0	7.3	0.0	0.0
9	0.0	2.5	0.0	0.0	0.0	1.3	13.2	17.2	0.0	1.5	0.0	0.0
10	0.0	10.4	1.8	0.0	0.0	0.4	0.3	2.2	0.0	13.3	0.0	0.0
11	0.0	8.1	3.0	0.0	1.5	0.0	14.2	0.0	0.0	0.0	0.1	0.0
12	0.0	0.0	0.0	0.0	17.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	1.7	0.0	1.7	1.6	0.0	11.8	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	4.8	4.9	2.5	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	14.4	0.0	7.1	6.0	14.5	0.0	1.5	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.8	21.6	3.5	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	5.7	0.0	0.0	0.1	14.5	0.0	0.0	0.1	0.0
18	0.0	3.2	0.0	0.0	13.1	40.0	1.3	10.8	4.9	0.0	0.0	0.0
19	0.0	1.3	0.0	0.0	0.0	54.4	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.6	0.0	23.5	0.0	2.2	0.0	0.0	11.1	2.0	0.0	0.0
21	0.0	0.0	0.0	55.5	0.0	0.0	2.6	0.0	2.1	0.3	0.0	0.0
22	0.0	0.0	0.0	0.0	5.3	0.0	3.3	27.2	19.1	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	19.1	0.0	24.2	22.3	0.1	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	1.9	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0
26	0.0	0.0	0.0	12.6	0.0	0.0	5.9	0.0	8.3	0.0	0.0	0.0
27	0.0	8.4	0.0	0.4	0.1	0.0	0.0	13.3	0.0	0.0	0.0	0.0
28	0.0	0.0	6.0	10.5	13.8	0.0	0.1	5.5	0.0	0.0	0.0	0.0
29	0.0		0.0	21.1	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0		0.1		1.1	15.9	12.1	9.2	0.1	0.0	0.0	0.0
31	0.0		0.0		15.9		39.5	17.4		0.0		0.0
Total	0.0	34.5	17.5	180.2	144.4	211.9	191.0	222.8	119.3	48.1	6.5	0.0
Daily ■ax	0.0	10.4	6.0	55.5	28.7	54.4	39.5	27.2	42.2	13.3	5.1	0.0
Days	0	7	7	10	17	15	22	19	13	12	5	0

Annual Total : 1176.2 ■■
Daily Maximum : 55.5 ■■

Source: Department of ■eteorology and hydrology, MAF

DAILY PRECIPITATION

Station: XIENG KHUANG
Year: 1988 (Unit: mm)

Day	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	0.0	0.0	0.0	0.0	1.5	39.4	0.0	11.5	0.5	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	26.9	0.1	17.6	37.9	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.5	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	1.9	9.1	0.0	6.2	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.3	10.6	0.6	0.0	0.0
6	0.0	0.0	0.0	0.0	0.1	0.0	0.2	2.7	0.0	43.2	0.0	0.0
7	0.0	0.0	2.0	13.1	0.0	0.0	19.0	23.2	0.0	10.1	0.0	0.0
8	0.0	0.0	0.0	0.0	35.1	0.0	4.0	7.3	1.8	1.6	0.0	0.0
9	0.0	0.0	0.0	0.0	27.8	0.6	3.3	22.0	6.3	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.2	5.6	32.8	4.2	0.5	0.0	0.0
11	0.0	0.0	0.0	0.0	20.4	0.0	2.6	14.0	21.5	2.2	0.0	0.0
12	0.0	0.0	0.0	39.3	5.6	20.5	3.8	19.0	34.8	8.0	0.0	0.0
13	0.0	0.0	0.0	0.0	3.7	20.0	0.0	5.6	0.6	4.8	0.0	0.0
14	0.0	0.0	0.0	2.1	89.2	1.0	0.0	45.6	8.4	5.4	0.0	0.0
15	0.0	0.0	0.0	4.4	0.6	0.0	0.0	1.9	0.0	5.3	0.0	0.0
16	0.0	0.0	0.0	0.0	10.7	22.6	10.8	0.0	0.0	12.9	0.6	0.0
17	0.0	0.0	0.0	0.0	0.0	0.8	7.0	0.0	0.0	8.1	0.5	0.0
18	0.0	12.0	0.0	0.2	0.0	1.9	0.0	5.6	0.0	0.0	0.0	0.0
19	0.0	0.8	0.0	0.1	0.0	25.0	0.0	0.0	0.1	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.3	0.3	4.3	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	22.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.6	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.8	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	80.6	25.3	6.8	0.0	3.7	30.7	0.0	0.0	0.0
28	0.0	0.0	0.0	1.7	0.6	9.6	3.3	2.2	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	36.1	8.0	2.7	15.8	0.0	0.0	0.0	0.0
30	0.0		0.0	8.0	0.0	8.4	9.0	32.8	0.0	0.0	0.0	0.0
31	0.0		0.0		6.3		5.0	0.2		0.0		0.0
Total	0.0	12.8	2.0	181.0	291.4	167.1	135.9	313.1	125.7	102.7	1.1	0.0
Daily max	0.0	12.0	2.0	80.6	89.2	39.4	19.0	45.6	34.8	43.2	0.6	0.0
Days	0	2	1	13	18	17	20	19	12	12	2	0

Annual Total : 1332.8 mm
Daily Maximum : 89.2 mm

Source: Department of meteorology and hydrology, MAF

DAILY PRECIPITATION

Station: XIENG KHUANG
Year: 1989 (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	3.2	9.8	7.7	0.0	0.0		
2	0.0	0.0	0.0	0.0	0.0	12.5	6.1	12.4	0.0	0.0		
3	0.0	0.0	0.0	0.0	12.5	9.5	0.0	0.0	0.8	14.4		
4	0.0	0.0	0.0	0.0	5.5	4.3	0.0	0.4	0.0	0.1		
5	0.0	0.0	0.0	0.0	0.0	1.6	7.0	0.0	6.7	2.1		
6	0.0	0.0	0.0	0.0	0.0	8.2	0.4	0.3	13.6	0.0		
7	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.1	0.0	0.0		
8	0.0	0.0	0.0	0.0	0.0	16.0	0.0	6.5	17.9	0.0		
9	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.2	10.8	0.0		
10	0.0	0.0	0.0	0.0	5.5	8.5	7.5	0.8	0.0	0.3		
11	0.0	0.0	0.0	5.6	23.5	16.2	0.0	0.0	22.6	4.9		
12	0.0	0.0	0.0	0.0	1.5	16.7	1.5	1.0	0.0	0.0		
13	0.0	0.0	0.0	0.0	0.0	12.2	0.0	12.0	0.0	4.7		
14	0.0	0.0	4.8	0.0	23.5	24.0	2.8	18.8	0.0	56.6		
15	0.0	0.0	10.1	0.0	3.9	13.7	0.0	3.4	0.0	1.1		
16	0.0	0.0	18.9	0.0	7.4	25.0	0.0	7.6	0.0	0.0		
17	0.0	0.0	2.8	0.5	0.0	8.8	0.0	0.0	0.0	0.0		
18	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	1.0	0.0		
19	0.0	0.0	0.0	0.0	3.1	7.2	10.8	0.0	6.2	1.6		
20	0.0	0.0	0.0	0.0	0.0	0.0	5.4	14.8	1.2	0.0		
21	0.0	0.0	15.4	0.0	0.0	0.0	3.5	20.0	29.4	0.0		
22	0.0	0.0	24.2	62.0	0.0	1.6	9.3	0.0	5.9	3.5		
23	0.0	0.0	9.3	3.7	0.0	0.0	9.6	9.9	19.3	0.9		
24	3.1	0.0	0.0	30.4	0.2	0.0	93.9	21.0	0.5	9.8		
25	0.6	0.0	0.0	5.1	1.6	3.6	0.0	3.7	11.0	0.0		
26	0.3	0.0	0.0	29.3	0.0	9.0	1.9	2.4	0.0	0.0		
27	0.0	0.0	0.0	1.3	1.2	6.9	0.5	2.7	0.0	11.0		
28	0.1	0.0	0.0	0.0	5.7	3.1	0.4	4.7	0.0	0.0		
29	0.0		0.0	0.2	12.0	0.0	43.2	0.0	0.0	0.0		
30	0.0		6.4	13.2	2.1	0.0	41.8	5.6	0.0	0.0		
31	0.0		73.1		3.0		51.9	1.2		0.0		
Total	4.1	0.0	165.0	151.3	112.2	224.4	308.5	160.2	146.9	111.0	-	-
Daily max	3.1	0.0	73.1	62.0	23.5	25.0	93.9	21.0	29.4	56.6	-	-
Days	4	0	9	10	16	23	20	23	14	13	-	-

Annual Total : - mm
Daily Maximum : - mm

Source: Department of meteorology and hydrology, MAF

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1991
Month: May

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1	21.0	29.0	31.1	32.5	29.5	28.6	33.0	20.0	91	55	50	40	55	58	0.0	0.0	0.0	3	6	6	4	4	5	4.7	5.0	9.7	1.4	0.4	1.8
2	21.0	28.5	30.7	32.4	29.5	28.4	32.9	20.6	94	80	59	46	64	69	3.8	0.0	3.8	8	3	6	5	3	5	4.0	4.2	8.2	1.0	0.2	1.2
3	20.0	25.7	32.0	33.5	30.0	28.2	34.2	19.6	100	80	51	44	67	68	0.0	0.0	0.0	8	5	6	5	4	6	3.5	4.4	7.9	1.0	0.2	1.2
4	20.4	25.0	29.6	32.0	27.0	26.8	32.5	20.5	97	75	62	48	79	72	11.2	0.0	11.2	8	6	7	6	8	7	3.5	4.3	7.8	0.8	0.3	1.1
5	19.0	23.5	30.5	30.0	27.5	26.1	33.0	18.8	100	89	59	52	84	77	0.0	0.0	0.0	8	2	3	4	8	5	3.4	4.0	7.4	0.9	0.1	1.0
6	22.0	25.0	31.2	32.0	27.5	27.5	32.5	21.4	81	74	58	54	73	68	0.0	21.1	21.1	8	7	6	4	3	6	3.0	4.7	7.7	0.8	0.1	0.9
7	19.5	23.0	29.0	30.0	26.0	25.5	31.5	19.5	100	89	67	64	84	81	0.0	15.5	15.5	6	1	4	6	4	4	4.3	2.9	7.2	1.2	0.1	1.3
8	18.1	20.1	28.1	30.5	27.1	24.8	31.3	18.1	100	92	69	63	81	81	0.0	15.8	15.8	1	2	4	5	3	3	2.8	4.0	6.8	1.1	0.1	1.2
9	19.5	22.5	27.1	28.5	29.5	25.4	28.5	19.4	100	87	70	64	83	81	0.4	0.0	0.4	8	7	4	6	1	5	2.2	3.0	5.2	1.1	0.3	1.4
10	20.9	24.5	27.3	28.7	26.1	25.5	29.5	20.6	92	70	69	64	76	74	0.0	0.0	0.0	8	7	6	6	1	6	1.9	3.8	5.7	1.6	0.3	1.9
11	20.6	27.2	30.7	31.5	26.5	27.3	32.5	20.5	97	72	58	51	76	71	0.0	0.0	0.0	4	3	6	4	3	4	4.0	3.6	7.6	1.8	0.2	2.0
12	20.5	26.1	32.1	33.1	26.5	27.7	33.6	20.3	97	81	58	49	84	74	0.0	0.0	0.0	8	5	4	6	8	6	3.0	4.1	7.1	2.0		2.0
13	21.0	27.0	28.0	27.0	20.0	24.6	33.0	21.0	91	84	77	84	81	83	0.0	0.0	0.0	8	4	6	6	3	5	4.0	4.0	8.0	0.2	2.0	2.2
14	22.0	28.0	32.0	28.0	26.0	27.2	33.0	21.0	91	84	66	84	76	80	0.0	0.0	0.0	8	5	6	5	8	6	2.5	4.5	7.0	0.5	1.5	2.0
15	21.0	26.0	29.0	24.0	25.0	25.0	30.0	20.0	91	84	70	91	61	79	0.0	0.0	0.0	6	6	7	6	6	6	3.5	2.0	5.5	0.5	1.0	1.5
16	20.0	24.0	28.0	30.0	27.0	25.8	31.0	20.0	100	91	77	64	76	82	4.8	0.0	4.8	8	7	6	5	5	6	3.0	4.5	7.5	0.0	0.5	0.5
17	20.0	24.0	28.0	31.0	28.0	26.2	31.0	20.0	100	83	77	59	77	79	6.4	0.0	6.4	8	7	6	6	5	6	2.0	5.5	7.5	3.0	1.0	4.0
18	21.0	26.0	30.0	31.0	25.0	26.6	32.0	20.0	91	61	64	59	72	69	0.0	0.0	0.0	7	5	7	5	5	6	2.5	4.5	7.0	0.0	0.5	0.5
19	21.0	27.0	32.0	33.0	28.0	28.2	33.0	20.0	91	76	54	49	67	67	0.0	0.0	0.0	7	5	5	5	7	6	4.5	5.5	10.0	0.5	0.5	1.0
20	21.5	28.5	31.5	32.8	29.0	28.7	33.8	21.2	95	64	50	59	55	65	0.0	0.0	0.0	6	4	6	5	6	5	4.8	5.0	9.8	2.7	0.3	3.0
21	21.6	29.0	31.4	28.0	27.0	27.4	32.3	20.9	95	70	57	65	82	74	1.6	0.0	1.6	8	7	8	8	3	7	3.3	4.0	7.3	2.3	0.4	2.7
22	22.5	26.2	29.0	30.0	27.2	27.0	31.0	21.5	95	67	58	56	74	70	0.0	0.0	0.0	7	8	6	6	2	6	3.2	4.0	7.2	2.5	0.2	2.7
23	20.7	26.5	30.0	30.3	29.0	27.3	32.0	20.5	94	73	58	62	64	70	0.0	8.8	8.8	8	6	6	4	3	5	3.0	5.0	8.0	2.4	0.2	2.6
24	22.0	24.7	30.0	32.0	30.1	27.8	32.8	21.5	97	90	62	54	65	74	0.0	3.8	3.8	8	6	6	5	4	6	2.5	5.3	7.8	2.2	0.3	2.5
25	22.0	26.5	30.9	29.0	28.5	27.4	32.5	21.6	91	73	54	61	68	69	0.0	0.0	0.0	8	5	6	5	6	6	4.2	4.9	9.1	1.6	0.5	2.1
26	20.5	28.2	32.0	32.0	28.2	28.2	34.0	19.8	96	72	55	54	60	67	0.0	0.0	0.0	7	5	6	4	6	6	4.3	5.5	9.8	1.7	0.3	2.0
27	21.5	28.2	28.0	26.0	24.6	25.7	30.5	21.0	92	65	67	74	90	78	9.0	0.0	9.0	3	3	8	6	7	5	4.1	0.3	4.4	0.7	0.2	0.9
28	20.9	25.0	29.5	28.0	29.9	26.7	31.9	20.5	96	83	64	64	73	76	0.0	0.0	0.0	8	7	6	6	7	7	2.7	4.0	6.7	1.1	0.2	1.3
29	21.7	24.0	28.8	27.0	25.5	25.4	29.3	21.5	100	91	72	81	90	87	5.3	25.8	31.1	8	7	6	6	6	7	3.0	1.7	4.7	0.9	0.3	1.2
30	20.7	24.5	30.0	30.0	28.5	26.7	31.7	20.2	100	81	61	65	70	75	0.0	0.0	0.0	8	7	4	6	6	6	2.3	4.5	6.8	1.1	0.4	1.5
31	21.5	27.5	30.1	22.2	23.7	25.0	30.6	21.0	95	79	62	99	99	87	22.2	0.0	22.2	8	3	6	7	6	6	4.5	0.3	4.8	0.4	0.0	0.4
Average	20.8	25.8	29.9	29.9	27.2	26.7	31.9	20.4	95	78	62	62	74	74				7	5	6	5	5	6	3.4	4.0	7.3	1.3	0.4	1.7
1-10						26.7	31.9	19.9						73									5			7.4			1.3
11-20						26.7	32.3	20.4						75									6			7.7			1.9
21-31						26.8	31.7	20.9						75									6			7.0			1.8
Total																	155.3							104.2	123.0	227.2	39.0	12.6	51.6

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1991
Month: June

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1	21.5	27.0	29.0	31.1	29.4	27.6	31.5	21.0	100	81	61	59	67	74	0.0	0.0	0.0	8	8	8	6	6	7	3.4	7.0	10.4	1.5	0.3	1.8
2	21.5	26.4	21.0	24.9	26.0	24.0	31.1	21.0	99	81	100	88	90	92	18.4	0.0	18.4	8	7	8	8	8	8	2.5	2.5	5.0	0.7		0.7
3	22.0	27.0	23.0	24.0	24.0	24.0	30.0	21.0	100	84	91	91	100	93	0.0	0.0	0.0	8	8	8	8	8	8	1.5	1.5	3.0	1.0	0.5	1.5
4	22.0	25.0	23.0	23.0	23.0	23.2	30.0	21.5	91	92	91	91	91	91	10.2	0.0	10.2	7	8	8	8	8	8	0.0	0.0	0.0	0.5	0.5	1.0
5	22.0	25.0	27.0	26.0	25.0	25.0	29.0	21.0	91	83	76	84	83	83	6.0	0.0	6.0	8	8	7	8	8	8	0.0	0.5	0.5	0.0	0.5	0.5
6	23.0	25.0	27.0	30.0	27.0	26.4	30.0	22.0	83	85	84	64	84	80	0.0	0.0	0.0	8	8	7	7	8	8	0.5	2.0	2.5	0.0	0.5	0.5
7	24.0	26.0	26.0	27.0	26.0	25.8	29.0	22.0	91	84	84	76	84	84	0.0	0.0	0.0	8	8	8	8	7	8	1.0	2.5	3.5	0.5	1.0	1.5
8	24.0	26.0	27.0	27.0	27.0	26.2	31.0	23.0	91	84	76	76	76	81	0.0	0.0	0.0	8	8	8	6	8	8	0.0	2.5	2.5	0.5	0.5	1.0
9	24.0	25.0	29.0	30.0	27.0	27.0	31.0	25.0	91	83	70	64	76	77	0.0	0.0	0.0	8	8	7	8	7	8	0.5	3.0	3.5	0.5	0.5	1.0
10	23.6	25.9	28.2	29.0	27.0	26.7	29.5	23.5	91	76	69	67	74	75	0.0	0.0	0.0	8	8	8	8	6	8	0.0	2.3	2.3	0.7	0.3	1.0
11	23.5	25.5	28.0	25.2	25.7	25.6	28.6	23.0	93	84	74	74	82	81	0.6	0.0	0.6	8	8	8	8	7	8	0.0	0.0	0.0	0.4	0.3	0.7
12	22.5	24.5	23.5	24.2	23.5	23.6	25.3	22.5	100	91	99	98	97	97	4.8	5.1	9.9	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.2	0.2
13	21.7	22.0	22.2	22.6	22.5	22.2	23.6	21.6	100	100	72	69	97	88	36.3	26.8	63.1	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.0	0.0
14	23.5	26.3	27.7	28.2	27.0	26.5	23.8	22.0	89	81	72	69	78	78	0.0	0.0	0.0	8	8	7	8	4	7	0.0	0.0	0.0	0.7	0.0	0.7
15	24.0	27.0	30.4	30.7	28.5	28.1	31.5	23.5	87	76	66	70	79	76	0.0	0.0	0.0	8	8	6	7	8	7	0.9	2.2	3.1	0.9	0.3	1.2
16	24.0	28.2	30.0	30.7	23.3	27.2	31.7	24.0	91	76	69	69	99	81	18.8	0.0	18.8	8	8	8	8	8	8	0.0	0.0	0.0	0.8	0.1	0.9
17	23.5	22.5	24.2	25.3	24.5	24.0	28.7	22.6	98	95	86	85	92	91	0.0	0.0	0.0	8	8	8	7	5	7	0.0	0.0	0.0	0.5	0.1	0.6
18	23.5	27.4	29.5	28.5	25.9	27.0	30.1	23.0	91	72	74	69	74	76	0.2	0.0	0.2	7	7	6	5	8	7	2.2	2.8	5.0	1.0	0.2	1.2
19	23.0	25.0	27.6	29.0	24.3	25.8	29.5	22.9	90	87	70	67	94	82	2.1	0.0	2.1	8	8	7	7	8	8	0.1	1.5	1.6	0.7	0.0	0.7
20	22.5	26.5	27.0	28.1	25.5	25.9	29.0	22.4	96	80	81	79	89	85	0.0	0.0	0.0	8	8	8	8	8	8	0.0	2.0	2.0	0.7	0.2	0.9
21	24.0	26.0	27.0	29.4	27.1	26.7	29.6	23.5	91	82	76	66	76	78	0.0	39.5	39.5	8	8	8	6	7	7	0.0	1.0	1.0	0.6	0.0	0.6
22	22.3	24.0	23.0	22.7	22.1	22.8	24.5	22.5	100	91	100	100	99	98	18.8	36.2	55.0	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.0	0.0
23	21.6	23.6	27.1	27.0	24.6	24.8	28.2	21.4	100	95	74	81	91	88	0.2	0.0	0.2	8	8	8	8	8	8	0.0	0.0	0.0	0.5		0.5
24	23.0	24.0	24.0	24.0	24.0	23.8	26.0	23.0	100	91	91	91	91	93	6.4	0.0	6.4	8	8	8	8	3	7	0.0	0.0	0.0	0.0	0.0	0.0
25	23.0	24.0	26.0	24.0	24.0	24.2	26.0	22.0	96	91	84	91	91	91	22.0	0.0	22.0	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.0	0.0
26	23.0	24.0	24.0	24.0	24.0	23.8	25.0	22.0	100	91	91	91	91	93	14.8	0.0	14.8	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.0	0.0
27	23.0	24.0	25.0	27.0	25.0	24.8	23.0	22.0	95	96	92	76	92	90	22.8	0.0	22.8	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.0	0.0
28	22.2	25.0	26.0	28.0	27.0	25.6	27.0	22.0	98	83	81	70	96	86	0.0	0.0	0.0	8	8	8	6	7	7	3.0	4.0	7.0	1.0	0.5	1.5
29	24.0	26.0	28.0	30.0	26.0	26.8	30.0	23.0	91	92	92	85	84	89	0.0	0.0	0.0	8	8	7	6	6	7	1.0	2.0	3.0	0.0	1.0	1.0
30	24.0	28.0	30.0	30.0	27.0	27.8	31.0	23.0	91	77	64	83	84	80	0.0	0.0	0.0	7	7	7	8	7	7	2.0	3.0	5.0	1.0	3.0	4.0
31																													
Average	23.0	25.4	26.3	27.0	25.4	25.4	28.5	22.4	94	85	80	78	87	85				8	8	8	7	7	8	0.6	1.4	2.0	0.5	0.4	0.8
1-10						25.6	30.2	22.1						83									8			3.3			1.1
11-20						25.6	28.2	22.8						83									8			1.2			0.7
21-31						25.1	27.0	22.4						89									8			1.6			0.8
Total																	290.0							18.6	42.3	60.9	14.7	10.5	25.2

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1991
Month: July

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1	21.5	27.5	31.0	32.7	30.8	28.7			97	75	60	84	66	76	0.0	0.0	0.0	8	7	7	7	7	7	2.7	5.2	7.9	2.1	0.1	2.2
2	23.0	24.5	30.0	31.0	29.0	27.5			96	92	66	65	71	78	0.0	0.0	0.0	8	8	6	8	8	7	1.4	4.7	6.1	0.5	0.4	0.9
3	23.0	26.5	28.5	28.6	27.6	26.3			98	76	77	73	72	79	0.0	13.2	13.2	8	7	8	7	6	7	0.1	1.5	1.6	0.8	0.1	0.9
4	22.5	25.5	27.5	27.5	26.5	25.9			97	85	73	74	73	80	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	0.6	0.2	0.8
5	23.7	25.6	27.0	27.2	25.6	25.8			85	75	71	73	99	81	0.0	0.0	0.0	8	8	8	8	8	8	0.2	0.0	0.2	0.8	0.4	1.2
6	23.5	25.6	26.5	27.2	26.0	25.8			57	79	71	72	80	72	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	0.7	0.2	0.9
7	22.8	26.0	28.0	25.5	22.5	25.0			96	80	70	84		83	3.8	16.3	20.2	8	8	8	8	8	8	0.0	0.0	0.0	0.6	0.1	0.7
8	21.2	22.3	25.0	25.5	25.5	23.9			100	96	81	84	90	90	2.4	0.0	2.4	8	8	8	8	6	8	0.0	0.0	0.0	0.3	0.1	0.4
9	21.6	25.7	26.2	27.6	25.0	25.2			99	82	86	74	94	87	0.4	0.0	0.4	8	7	8	7	7	7	0.2	0.0	0.2	0.4	0.1	0.5
10	21.5	25.2	29.5	31.2	27.5	27.0			95	85	68	63	81	78	0.0	0.0	0.0	8	7	6	7	7	7	1.0	2.7	3.7	0.7	0.1	0.8
11	21.6	25.5	31.3	33.0	28.5	28.0			99	85	58	55	67	73	0.0	2.6	2.6	8	7	6	5	6	6	3.5	4.2	7.7	1.3	0.1	1.4
12	21.6	26.5	31.1	32.0	26.7	27.6			99	84	54	63	90	78	0.0	0.0	0.0	7	7	7	7	3	6	2.1	3.4	5.5	2.0	0.1	2.1
13	22.4	24.6	30.5	26.1	25.0	25.7			96	91	67	76	83	83	1.7	0.0	1.7	8	7	7	7	7	7	1.9	2.6	4.5	1.1	0.3	1.4
14	23.0	25.9	19.1	26.5	25.9	24.1			95	81	74	88	89	85	3.1	0.0	3.1	8	8	8	8	8	8	0.1	0.3	0.4	0.8		0.8
15	22.0	24.0	25.0	25.0	25.0	24.2			91	91	92	92	92	92	4.4	0.0	4.4	8	8	8	8	8	8	0.0	0.0	0.0	1.5	0.5	2.0
16	22.0	24.0	25.0	25.0	23.0	23.8			91	83	92	92	91	90	2.4	0.0	2.4	8	8	8	8	8	8	0.0	0.0	0.0	0.6	0.2	0.8
17	21.0	21.0	14.5	24.0	22.0	20.5			100	95		83	91	92	11.2	0.0	11.2	8	8	8	8	8	8	0.0	0.0	0.0	1.0	0.0	1.0
18	22.0	22.0	26.0	25.0	25.0	24.0			82	100	84	85	90	88	8.0	0.0	8.0	8	8	8	8	8	8	0.0	0.0	0.0	0.0	1.0	1.0
19	22.0	25.0	27.0	27.0	25.0	25.2			91	80		84	92	87	3.2	0.0	3.2	7	7	7	7	7	7	0.5	3.0	3.5	0.2	1.0	1.2
20	23.0	25.0	28.0	23.0	28.0	25.4			91	92	77	95	84	88	8.0	0.0	8.0	7	7	7	7	7	7	1.0	5.0	6.0	0.0	0.0	0.0
21	24.0	25.0	25.0	25.0	26.0	25.0			100	92	92	92	84	92	0.0	0.0	0.0	8	7	8	8	8	8	0.5	0.0	0.5	0.0	1.0	1.0
22	23.5	26.0	28.2	29.0	21.0	25.5			96	84	76	72	100	86	19.2	0.0	19.2	8	8	8	7	8	8	0.0	0.9	0.9	0.6	0.1	0.7
23	22.0	24.0	29.0	23.6	23.0	24.3			100	96	69	97	99	92	5.6	6.2	11.8	8	8	8	7	7	8	1.4	0.0	1.4	0.0	0.0	0.0
24	22.2	24.0	28.8	22.8	23.3	24.2			99	96	75	99	97	93	10.4	8.2	18.6	8	8	6	8	7	7	1.9	1.3	3.2	0.1	0.0	0.1
25	22.0	27.0	28.5	26.0	24.5	25.6			100	97	67	76	87	85	0.0	1.2	1.2	8	8	6	8	7	7	2.9	1.8	4.7	0.1	0.0	0.1
26	23.0	23.1	26.0	25.2	25.0	24.5			96	97	82	86	83	89	0.9	2.9	3.8	8	8	8	8	8	8	0.0	0.0	0.0	1.1	0.4	1.5
27	23.5	25.0	26.0	26.4	25.7	25.3			87	80	93	71	80	82	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	1.1	0.7	1.8
28	23.5	25.5	27.5	28.5	26.0	26.2			87	77	70	68	86	78	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	1.5	0.6	2.1
29	23.8	25.6	28.2	30.4	26.0	26.8			88	81	69	62	86	77	0.2	0.0	0.2	8	7	8	7	8	8	3.3	0.0	3.3	1.9	0.6	2.5
30	23.6	26.1	28.2	29.0	26.3	26.6			88	76	69	64	78	75	0.0	0.0	0.0	8	8	8	7	5	7	1.1	1.1	2.2	0.8	0.4	1.2
31	24.0	26.0	24.6	26.5	25.0	25.2			83	76	92	82	88	84	1.4	0.0	1.4	8	8	8	8	7	8	1.1	1.1	2.2			
Average	22.6	25.0	27.0	27.2	25.5	25.5	####	####	93	86	75	78	86	84				8	8	8	7	7	8	0.9	1.3	2.1	0.8	0.3	1.1
1-10						26.2	####	####						80									8			2.0			0.9
11-20						24.8	####	####						86									7			2.8			1.2
21-31						25.4	####	####						85									8			1.7			1.1
Total																	137.0							26.9	38.8	65.7	23.2	8.8	32.0

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1991
Month: August

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1	23.6	25.0	24.0	25.5	24.5	24.5			91	88	98	88	88	91	3.6	3.0	6.5	8	8	8	8	8	8	0.0	0.0	0.0	0.3	0.0	0.3
2	22.0	22.4	25.0	24.0	24.1	23.5			100	100	89	98	97	97	12.5	0.0	12.5	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.0	0.0
3	21.6	24.0	27.4	29.0	25.2	25.4			100	88	74	67	88	83	0.0	0.0	0.0	8	8	8	7	7	8	0.0	0.0	0.0	0.7	0.1	0.8
4	21.5	25.5	29.5	30.7		26.8			95	84	61	61	92	79			0.0	8	6	6	7	4	6	0.0	0.0	0.0	1.0	1.5	2.5
5	24.0	26.0	30.0	25.0	33.0	27.6			91	84	64	49	77	73	0.0	0.0	0.0	8	5	5	6	4	6	4.5	5.0	9.5	0.8	0.5	1.3
6	23.0	27.0	32.0	33.0	28.0	28.6			91	81	54	49	77	70	0.0	0.0	0.0	8	5	5	6	5	6	4.0	5.5	9.5	0.5	0.5	1.0
7	23.0	25.0	30.0	31.0	28.0	27.4			100	92	64	54	77	77	16.4	0.0	16.4	7	7	7	7	6	7	3.0	5.5	8.5	0.0	0.5	0.5
8	23.0	27.0	30.0	28.0	26.0	26.8			100	76	58	70	76	76	0.0	0.0	0.0	8	7	7	8	7	7	1.5	2.0	3.5	0.5	0.4	0.9
9	23.0	25.0	28.0	30.0	26.0	26.4			91	83	77	64	84	80	0.0	0.0	0.0	8	7	7	6	8	7	0.5	3.0	3.5	0.0	1.5	1.5
10	23.0	25.0	26.0	26.0	25.0	25.0			92	83	84	76	82	83	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.5	0.5
11	23.0	24.0	24.0	23.0	23.0	23.4			82	83	91	100	100	91	26.0	5.0	31.0	8	8	8	8	8	8	0.0	0.0	0.0	0.5	0.5	1.0
12	21.2	21.4	22.0	21.2	21.1	21.4			100	98	96	99	94	97	26.9	63.6	90.5	8	8	8	8	8	8	0.0	0.0	0.0	0.1	0.0	0.1
13	21.0	22.4	22.7	25.0	23.6	22.9			100	96	99	87	87	94	3.4	11.9	15.3	8	8	8	8	8	8	0.0	0.0	0.0	0.3	0.0	0.3
14	21.5	22.6	23.5	25.5	24.7	23.6			100	98	96	84	83	92	1.6	2.9	4.5	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.0	0.0
15	21.5	22.0	23.5	26.4	25.5	23.8			100	100	97	82	86	93	2.0	40.0	42.0	8	8	8	6	8	8	0.0	0.0	0.0	0.0	0.0	0.0
16	21.5	24.0	28.5	29.5	27.0	26.1			100	86	70	68	73	79	0.0	6.0	6.0	8	7	5	6	6	6	0.0	0.0	0.0	0.4	0.0	0.4
17	23.0	25.3	28.0	29.0	27.8	26.6			96	82	70	74	84	81	0.0	0.0	0.0	8	8	8	7	8	8	0.0	0.0	0.0	0.4	0.2	0.6
18	22.7	26.2	29.1	29.6	26.0	26.7			94	80	63	70	81	78	0.0	0.0	0.0	8	6	7	8	6	7	0.0	0.0	0.0	0.7	0.2	0.9
19	21.6	27.5	29.4	28.7	26.2	26.7			99	66	63	67	75	74	0.0	0.0	0.0	7	5	8	8	5	7	0.0	0.0	0.0	1.2	0.1	1.3
20	22.1	27.1	29.0	27.8	25.1	26.2			97	67	67	72	86	78	0.0	0.0	0.0	7	7	8	8	8	8	0.0	0.0	0.0	0.7	0.1	0.8
21	23.1	25.5	28.3	26.5	25.0	25.7			97	84	68	76	88	83	1.4	1.7	3.0	8	7	6	7	8	7	0.0	0.0	0.0	0.5	0.0	0.5
22	22.7	25.4	26.0	26.5	25.0	25.1			98	86	88	84	96	90	10.0	0.0	10.0	8	8	8	8	8	8	0.4	0.1	0.5	0.2	0.0	0.2
23	23.1	26.1	28.6	27.3	26.5	26.3			99	81	74	78	84	83	0.2	0.0	0.2	8	8	8	8	8	8	0.2	1.4	1.6	0.3	0.2	0.5
24	23.0	28.0	29.6	26.6	26.0	26.6			97	74	67	84	92	83	0.0	25.0	25.0	8	8	8	8	6	8	1.6	1.9	3.5	0.5	0.0	0.5
25	22.1	24.0	28.5	28.3	26.1	25.8			100	96	99	70	87	90	1.8	8.0	9.8	8	8	7	8	8	8	1.0	3.0	4.0	0.2	0.0	0.2
26	23.0	24.0	28.0	24.0	24.0	24.6			91	91	77	100	91	90	8.0	11.0	19.0	8	8	7	8	8	8	2.0	0.0	2.0	0.0	0.0	0.0
27	23.0	24.0	27.0	29.0	25.0	25.6			100	91	84	70	100	89	6.4	0.0	6.4	8	8	7	6	8	7	0.5	0.0	0.5	0.0	0.5	0.5
28	22.0	25.0	28.0	24.0	25.0	24.8			100	92	77	91	92	90	0.0	0.0	0.0	8	7	7	7	8	7	4.5	3.0	7.5	0.5	0.5	1.0
29	24.0	25.0	28.0	30.0	25.0	26.4			91	92	70	64	83	80	0.0	0.0	0.0	8	6	6	6	3	6	4.0	6.5	10.5	0.5	0.5	1.0
30	21.0	24.0	30.0	30.0	27.0	26.4			91	83	64	64	84	77	0.0	0.0	0.0	8	6	7	6	3	6	4.0	5.5	9.5	0.3	0.7	1.0
31	22.0	26.0	30.0	32.0	26.0	27.2			82	84	64	54	84	74	3.2	0.0	3.2	8	6	7	5	8	7	4.5	5.5	10.0	0.5	0.5	1.0
Average	22.4	24.9	27.5	27.5	25.7	25.6	####	####	96	86	76	75	86	84				8	7	7	7	7	7	1.2	1.5	2.7	0.4	0.3	0.7
1-10						26.2	####	####						81									7			3.5			0.9
11-20						24.7	####	####						86									8			0.0			0.5
21-31						25.9	####	####						85									7			4.5			0.6
Total																	301.2							36.2	47.9	84.1	11.6	9.5	21.1

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1991
Month: September

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1	23.0	25.0	28.0	27.0	27.0	26.0	30.0	22.0	100	92	77	84	84	87	0.0	0.0	0.0	8	7	7	7	7	7	0.5	1.0	1.5	0.5	0.5	1.0
2	23.0	26.0	30.0	24.5	25.6	25.8	30.2	22.2	97	91	70	94	99	90	4.8	0.0	4.8	8	6	8	6	8	7	1.5	1.0	2.5	0.2	0.0	0.2
3	21.5	25.5	28.0	30.6	23.2	25.8	31.0	21.0	100	97	100	88	91	95	2.6	0.0	2.6	8	8	7	6	6	7	0.5	2.7	3.2	0.5	0.0	0.5
4	21.1	23.5	29.0	28.1	26.5	25.6	30.0	21.0	100	93	74	95	100	92	1.3	23.8	25.1	8	6	6	5	5	6	2.9	2.9	5.8	0.3	0.0	0.3
5	23.2	26.5	28.4	26.0	25.5	25.9	32.0	23.0	100	82	74	84	88	86	1.2	0.6	1.8	8	6	6	7	4	6	2.8	2.3	5.1	0.5	0.1	0.6
6	22.5	27.0	29.5	31.5	28.5	27.8	32.5	22.2	100	76	64	60	88	78	0.0	0.0	0.0	8	6	4	5	6	6	2.9	5.2	8.1	0.8	0.1	0.9
7	23.0	28.0	30.0	30.8	24.7	27.3	32.0	22.8	97	77	68	92	100	87	0.0	0.0	0.0	8	6	5	4	6	6	2.3	3.4	5.7	0.8	0.1	0.9
8	21.4	26.0	27.5	28.2	26.5	25.9	29.2	21.0	100	98	78	74	80	86	0.0	0.0	0.0	8	6	7	4	8	7	1.6	2.2	3.8	0.5	0.0	0.5
9	22.5	25.1	27.1	30.5	27.6	26.6	31.1	22.0	96	88	74	62	65	77	0.0	20.3	20.3	8	8	7	6	6	7	1.3	4.4	5.7	0.6	0.2	0.8
10	21.9	25.5	28.5	28.4	27.3	26.3	29.0	21.5	98	85	76	76	86	84	2.2	10.9	13.1	8	6	7	7	1	6	2.4	4.9	7.3	0.5	0.1	0.6
11	21.5	25.0	29.0	30.3	26.2	26.4	31.0	21.4	96	83	70	66	90	81	0.0	3.6	3.6	7	6	4	3	1	4	4.1	5.2	9.3	0.7	0.1	0.8
12	21.1	24.0	26.0	26.5	25.5	24.6	28.1	21.0	99	89	88	80	92	90	7.5	0.0	7.5	8	7	7	7	1	6	1.1	1.8	2.9	0.3	0.1	0.4
13	22.6	25.7	25.1	31.0	24.5	25.8	31.0	21.8	97	82	83	59	92	83	3.0	0.0	3.0	8	6	7	3	0	5	2.1	4.9	7.0	0.7	0.1	0.8
14	20.5	24.5	28.1	28.5	25.1	25.3	31.5	20.5	100	82	72	64	88	81	0.0	1.6	1.6	8	7	6	7	4	6	2.8	4.7	7.5	0.6	0.0	0.6
15	21.5	22.7	26.3	27.0	25.0	24.5	27.3	21.4	99	94	82	81	88	89	0.8	0.0	0.8	8	8	7	7	4	7	0.3	0.6	0.9	0.3	0.0	0.3
16	22.0	24.0	28.0	28.0	26.0	25.6	30.0	21.5	91	91	77	70	92	84	0.0	0.0	0.0	8	8	7	6	6	7	1.0	4.5	5.5	0.0	0.5	0.5
17	22.0	25.0	27.0	30.0	25.0	25.8	30.0	21.0	91	92	76	64	92	83	0.0	0.0	0.0	8	7	7	7	8	7	1.5	2.5	4.0	0.0	0.4	0.4
18	23.0	25.0	28.0	27.0	25.0	25.6	31.0	22.0	91	92	77	84	92	87	0.0	0.0	0.0	8	7	6	7	5	7	3.0	4.5	7.5	0.5	0.5	1.0
19	25.0	23.0	24.0	24.0	24.0	24.0	25.0	22.0	91	81	91	91	90	89	0.0	6.0	6.0	8	8	8	6	8	8	0.0	0.0	0.0	0.4	0.5	0.9
20	22.0	25.0	27.0	28.0	25.0	25.4	30.0	21.0	91	92	84	76	92	87	0.0	0.0	0.0	8	7	7	7	7	7	2.5	1.5	4.0	0.0	0.5	0.5
21	23.0	26.0	28.0	30.0	25.0	26.4	30.0	22.0	91	84	92	64	83	83	0.0	0.0	0.0	8	6	7	5	4	6	3.0	5.0	8.0	0.0	0.5	0.5
22	21.0	25.0	25.0	30.0	25.0	25.2	31.0	20.0	91	83	91	64	92	84	0.0	5.2	5.2	8	6	7	6	5	6	3.0	2.5	5.5	0.5		0.5
23	21.5	24.2	29.5	30.2	25.6	26.2	30.8	20.5	97	79	64	60	87	77	0.0	1.4	1.4	8	6	6	4	5	6	2.4	5.0	7.4	1.4	0.1	1.5
24	21.5	24.0	28.5	24.5	23.0	24.3	29.6	21.0	100	89	70	82	91	86	0.0	0.0	0.0	8	8	6	7	6	7	2.0	2.0	4.0	0.4	0.1	0.5
25	21.0	24.5	28.5	26.7	24.0	24.9	29.5	20.8	100	87	70	76	91	85	0.0	0.0	0.0	8	8	8	7	5	7	2.0	0.2	2.2	0.5	0.1	0.6
26	22.5	26.0	29.7	29.0	24.5	26.3	32.0	22.0	95	82	67	77	96	83	0.0	0.0	0.0	8	6	5	8	8	7	3.1	2.8	5.9	0.6	0.1	0.7
27	22.8	21.5	23.2	25.7	24.5	23.5	26.0	22.6	100	98	89	82	92	92	2.4	3.2	5.6	8	8	8	8	5	7	0.0	0.0	0.0	0.2	0.1	0.3
28	22.0	25.4	28.5	23.1	23.5	24.5	28.5	21.5	100	88	67	94	96	89	25.2	0.0	25.2	8	8	7	7	5	7	1.0	1.2	2.2	0.3	0.0	0.3
29	20.8	24.0	28.0	25.5	23.5	24.4	28.6	20.2	98	87	77	87	91	88	0.0	0.8	0.8	8	7	6	8	8	7	1.1	1.2	2.3	0.4	0.1	0.5
30	22.0	24.5	27.6	26.0	23.6	24.7	28.3	21.0	98	87	72	81	93	86	3.1	2.9	6.0	8	8	7	7	3	7	1.4	1.0	2.4	0.4	0.0	0.4
31																													
Average	22.1	24.9	27.7	27.9	25.2	25.6	29.9	21.5	97	87	77	77	90	86									7	1.9	2.7	4.6	0.4	0.2	0.6
1-10						26.3	30.7	21.9						86									6			4.9			0.6
11-20						25.3	29.5	21.4						85									6			4.9			0.6
21-31						25.1	29.4	21.2						85									7			4.0			0.6
Total																	134.4							56.1	81.1	137.2	13.4	4.9	18.3

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1991
Month: October

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	22.0	24.6	28.5	28.7	25.5	25.9	29.9	21.9	95	86	73	69	87	82	0.0	0.0	0.0	8	7	6	6	6	7	0.9	4.6	5.5	0.5	0.1	0.6
2	22.1	23.6	28.5	28.0	24.5	25.3	28.6	22.0	99	91	70	77	90	85	7.8	0.0	7.8	8	8	8	7	1	6	0.8	3.1	3.9	0.4	0.1	0.5
3	20.6	25.5	28.5	30.0	25.0	25.9	31.2	20.4	98	84	74	68	92	83	0.0	9.3	9.3	8	8	5	4	1	5	1.3	4.9	6.2	0.5	0.1	0.6
4	20.2	24.6	29.0	28.5	22.7	25.0	29.5	20.0	98	92	61	62	90	81	0.0	0.0	0.0	5	6	4	1	0	3	1.1	5.2	6.3	0.6	0.0	0.6
5	18.6	21.6	28.5	28.1	23.5	24.1	29.3	18.1	100	90	67	66	83	81	0.0	0.0	0.0	8	8	4	3	5	6	2.4	4.7	7.1	0.7	0.1	0.8
6	19.5	24.7	26.1	26.1	23.0	23.9	27.5	18.7	96	90	66	70	89	80	0.0	0.0	0.0	7	6	7	7	7	7	1.1	1.1	2.2	0.7	0.1	0.8
7	18.0	24.0	27.0	26.0	24.0	23.8	27.5	19.0	100	75	62	76	75	78	0.0	0.0	0.0	6	7	4	7	7	6	4.0	3.5	7.5	0.1	0.5	0.6
8	18.0	22.0	27.0	27.0	25.0	23.8	29.0	18.5	100	82	69	76	85	82	0.0	0.0	0.0	8	4	6	7	4	6	2.5	4.5	7.0	0.0	0.5	0.5
9	18.0	21.0	27.0	27.0	26.0	24.2	29.0	18.0	100	91	76	76	83	85	0.0	0.0	0.0	8	5	7	6	4	6	3.0	3.5	6.5	0.5	0.5	1.0
10	18.0	23.0	29.0	30.0	24.0	24.8	30.0	18.0	100	82	70	64	91	81	0.0	0.0	0.0	8	6	6	6	3	6	2.0	4.0	6.0	0.1	1.0	1.1
11	20.0	25.0	30.0	27.0	25.0	25.4	29.0	20.0	100	92	64	84	83	85	0.0	0.0	0.0	3	7	7	7	7	7	3.5	4.0	7.5	0.0	0.0	0.0
12	20.0	24.0	28.0	26.0	22.0	24.0	30.0	20.0	100	91	77	84	100	90	3.2	6.6	9.8	8	7	7	8	8	8	3.0	0.0	3.0	0.0	0.0	0.0
13	21.0	24.0	28.0	28.0	23.0	24.8	30.0	20.0	91	91	77	70	100	86	0.8	0.0	0.8	8	8	7	7	2	6	1.5	4.0	5.5	0.0	0.0	0.0
14	19.9	23.0	29.0	30.0	26.0	25.6	30.0	19.9	100	96	75	71	88	86	0.0	0.0	0.0	8	6	6	6	3	6	2.0	3.0	5.0	1.2	0.1	1.3
15	20.5	22.0	29.2	29.5	26.0	25.4	30.7	20.5	100	93	77	76	88	87	0.0	0.0	0.0	8	6	5	5	3	5	2.5	3.0	5.5	1.3	0.1	1.4
16	20.5	24.2	30.0	27.5	24.5	25.3	30.5	20.2	100	91	72	84	96	89	0.0	0.0	0.0	8	5	6	4	3	5	3.0	2.3	5.3	1.2	0.1	1.3
17	21.7	23.5	23.0	26.5	22.0	23.3	28.0	21.5	99	96	89	88	100	94	0.0	0.0	0.0	8	7	8	8	8	8	0.5	1.3	1.8	0.3	0.0	0.3
18	20.2	23.0	28.0	28.0	22.0	24.2	29.2	20.5	99	93	78	78	100	90	3.0	6.8	9.8	8	7	6	6	3	6	2.2	3.5	5.7	0.8	0.0	0.8
19	21.1	26.0	27.7	29.0	22.5	25.3	30.0	20.5	99	85	79	75	95	87	3.5	0.0	3.5	8	6	6	5	3	6	2.0	3.9	5.9	1.2	0.0	1.2
20	20.0	22.5	27.5	26.4	24.0	24.1	28.3	19.8	100	91	73	86	91	88	13.2	0.0	13.2	8	7	5	6	8	7	1.5	1.0	2.5	0.8	0.2	1.0
21	20.1	24.6	28.0	27.5	23.1	24.7	28.6	20.0	99	85	74	81	87	85	0.0	0.0	0.0	8	5	6	7	8	7	2.8	1.9	4.7	1.2	0.2	1.4
22	20.3	24.5	25.3	23.5	22.0	23.1	25.2	19.0	97	82	81	85	85	86	0.0	0.0	0.0	8	4	8	8	8	7	2.0	0.5	2.5	1.5	0.3	1.8
23	17.5	23.2	26.0	23.3	20.5	22.1	26.0	17.5	100	84	76	88	95	89	0.4	0.0	0.4	8	6	6	7	3	6	2.0	1.0	3.0	1.1	0.1	1.2
24	17.6	22.6	26.5	26.0	21.2	22.8	26.5	17.0	100	86	73	76	90	85	0.0	0.0	0.0	8	3	6	6	1	5	3.5	2.5	6.0	1.5	0.0	1.5
25	17.2	22.1	26.0	26.1	21.5	22.6	26.0	16.9	100	86	74	75	91	85	0.0	0.0	0.0	8	3	4	1	0	3	3.3	2.9	6.2	1.1	0.1	1.2
26	17.5	19.9	27.5	27.7	23.0	23.1	27.5	17.0	100	94	71	67	90	84	0.0	0.0	0.0	8	7	2	5	8	6	2.0	3.1	5.1	1.3	0.0	1.3
27	10.3	25.0	26.6	25.0	20.5	21.5	27.3	20.0	90	75	69	80	95	82	0.0	0.0	0.0	5	1	6	3	0	3	4.3	2.6	6.9	2.8		2.8
28	15.0	25.0	27.0	25.0	22.0	22.8	26.0	15.5	100	61	61	68	82	74	0.0	0.0	0.0	8	4	5	7	7	6	3.0	1.5	4.5	1.0	5.0	6.0
29	15.0	17.0	24.0	27.0	23.0	21.2	28.0	14.5	100	90	83	69	82	85	0.0	0.0	0.0	8	7	4	5	2	5	4.0	2.0	6.0	0.5	0.4	0.9
30	15.0	18.0	26.0	28.0	24.0	22.2	28.0	15.0	81	90	92	70	83	83	0.0	0.0	0.0	8	6	5	5	3	5	5.0	0.0	5.0	0.5	0.5	1.0
31	16.0	19.0	26.0	28.0	22.0	22.2	28.0	15.5	100	90	60	70	80	80	0.0	0.0	0.0	8	6	3	3	3	5	5.5	2.0	7.5	0.5	0.5	1.0
Average	18.8	23.0	27.4	27.2	23.4	23.9	28.5	18.9	98	87	73	75	89	84									6	2.5	2.7	5.3	0.8	0.4	1.1
1-10						24.7	29.2	19.5						82									6			5.8			0.7
11-20						24.7	29.6	20.3						88									6			4.8			0.7
21-31						22.6	27.0	17.1						84									5			5.2			1.8
Total																	54.6							78.2	85.1	163.3	24.1	10.6	34.7

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1991
Month: November

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	15.0	17.0	27.0	28.0	24.0	22.2	28.0	15.0	100	90	76	77	75	84	0.0	0.0	0.0	8	6	7	5	8	7	4.5	3.0	7.5	1.5	2.0	3.5
2	19.0	22.3	24.0	24.0	20.0	21.9	26.0	18.0	90	83	91	91	100	91	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	1.0	1.5	2.5
3	16.0	18.0	17.0	17.0	17.0	17.0	21.0	16.0	100	100	90	100	100	98	8.0	9.6	17.6	8	8	8	8	8	8	0.0	0.0	0.0	0.0	0.5	0.5
4	15.8	16.2	17.0	17.5	16.7	16.6	18.0	15.8	98	98	96	92	93	95	0.0	3.7	3.7	8	8	8	8	8	8	0.0	0.0	0.0	0.1	0.1	0.2
5	17.0	19.0	24.0	21.2	20.5	20.3	24.8	16.6	97	90	81	94	95	91	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	1.7	0.2	1.9
6	18.2	20.7	26.8	26.5	21.7	22.8	27.6	16.7	98	89	78	76	94	87	0.0	0.0	0.0	8	8	6	5	3	6	0.0	0.0	0.0	1.0	0.1	1.1
7	18.5	20.0	25.2	22.5	21.2	21.5	25.7	18.0	100	97	82	91	98	94	1.9	0.0	1.9	8	8	7	8	6	7	0.0	0.0	0.0	0.5	0.0	0.5
8	18.6	21.7	26.5	26.5	22.5	23.6	28.8	17.5	99	94	78	70	91	86	0.0	0.0	0.0	8	7	5	3	3	5	1.5	2.0	3.5	0.0	0.0	0.0
9	18.0	20.0	27.0	27.7	22.5	23.0	29.0	17.3	100	95	76	76	95	88	0.0	0.0	0.0	8	8	5	3	4	6	1.5	3.5	5.0	1.7	0.0	1.7
10	18.3	21.0	25.6	26.2	20.6	22.3	27.5	18.0	99	91	79	75	94	88	0.0	0.0	0.0	8	6	6	2	1	5	2.2	4.3	6.5	1.3	0.2	1.5
11	17.1	19.7	26.0	26.7	19.5	21.8	26.2	16.0	100	96	73	66	90	85	0.0	0.0	0.0	8	8	7	1	1	5	1.6	2.6	4.2	1.2	0.0	1.2
12	15.5	19.0	25.1	24.4	19.5	20.7	25.7	15.0	100	95	77	80	94	89	0.0	0.0	0.0	8	8	3	3	0	4	1.6	3.7	5.3	1.3	0.1	1.4
13	15.9	19.6	25.1	24.6	19.0	20.8	25.2	15.2	100	90	79	78	94	88	0.0	0.0	0.0	6	8	7	1	0	4	1.0	2.5	3.5	1.1	0.1	1.2
14	14.5	22.0	24.5	23.6	17.4	20.4	24.0	13.5	100	74	68	70	72	77	0.0	0.0	0.0	5	2	3	1	0	2	2.3	3.6	5.9	2.1	0.0	2.1
15	13.1	17.7	21.6	21.5	16.0	18.0	22.3	12.0	100	78	74	75	89	83	0.0	0.0	0.0	8	8	6	8	0	6	1.2	2.3	3.5	1.6	0.0	1.6
16	12.5	14.7	22.1	23.0	15.6	17.6	23.9	11.0	100	74	73	66	89	80	0.0	0.0	0.0	8	7	0	1	0	3	1.7	2.6	4.3	1.4	0.0	1.4
17	10.9	14.0	22.6	23.6	16.5	17.5	24.0	10.2	100	94	69	62	90	83	0.0	0.0	0.0	8	8	1	0	0	3	2.5	4.7	7.2	1.0	1.0	2.0
18	12.0	14.0	23.0	25.0	20.0	18.8	25.0	11.0	100	89	74	68	81	82	0.0	0.0	0.0	8	6	3	3	3	5	1.0	5.0	6.0	0.5	0.5	1.0
19	13.0	15.0	22.5	25.0	22.0	19.5	25.0	11.5	100	82	78	61	82	81	0.0	0.0	0.0	8	6	6	5	1	5	1.0	2.5	3.5	0.0	0.0	0.0
20	13.0	16.0	24.0	24.0	20.0	19.4	24.0	12.5	100	80	67	67	55	74	0.0	0.0	0.0	8	6	3	3	0	4	2.0	3.0	5.0	0.5	0.5	1.0
21	11.0	13.0	23.0	25.0	20.0	18.4	25.0	10.0	100	100	74	61	81	83	0.0	0.0	0.0	8	8	3	3	3	5	1.5	3.0	4.5	0.0	1.0	1.0
22	12.0	13.5	23.0	25.0	23.0	19.3	26.0	11.5	100	99	100	83	91	95	0.0	0.0	0.0	8	8	3	3	3	5	2.5	3.0	5.5	0.5	0.5	1.0
23	14.0	15.0	24.0	27.0	22.0	20.4	28.0	12.0	100	89	68	69	65	78	0.0	0.0	0.0	8	8	4	4	7	6	1.0	3.5	4.5	1.0	0.5	1.5
24	15.0	18.0	26.0	27.0	24.0	22.0	27.0	15.0	100	90	84	84	83	88	0.0	0.0	0.0	8	7	3	6	6	6	2.0	3.0	5.0	0.0	1.5	1.5
25	15.5	18.5	24.7	24.0	19.5	20.4	26.0	15.4	100	95	67	73	90	85	0.0	0.0	0.0	8	5	7	6	2	6	1.5	2.5	4.0	1.5	0.1	1.6
26	14.0	21.5	24.5	24.0	18.7	20.5	25.3	13.6	100	76	69	75	93	83	0.0	0.0	0.0	8	3	6	5	1	5	4.3	3.1	7.4	1.8	0.2	2.0
27	14.6	17.4	24.4	26.0	19.0	20.3	26.4	14.3	100	96	69	69	95	86	0.0	0.0	0.0	8	8	5	3	4	6	2.1	4.4	6.5	1.3	0.0	1.3
28	14.5	17.0	24.6	25.0	18.5	19.9	26.5	13.8	100	95	71	72	95	87	0.0	0.0	0.0	8	8	7	4	3	6	1.9	2.3	4.2	1.4	0.1	1.5
29	14.2	16.8	25.0	26.5	19.5	20.4	27.0	13.5	100	87	73	65	95	84	0.0	0.0	0.0	8	8	4	6	5	6	2.4	3.5	5.9	1.6	0.0	1.6
30	14.0	16.0	26.0	26.8	20.5	20.7	27.7	13.0	100	98	63	59	86	81	0.0	0.0	0.0	8	8	5	2	1	5	2.2	4.3	6.5	2.1	0.0	2.1
31																													
Average	15.0	17.8	24.1	24.6	19.9	20.3	25.6	14.3	99	90	77	75	88	86									6	1.6	2.6	4.2	1.0	0.4	1.4
1-10						21.1	25.6	16.9						90									7			2.3			1.3
11-20						19.5	24.5	12.8						82									4			4.8			1.3
21-31						20.2	26.5	13.2						85									6			5.4			1.5
Total																	23.2							47.0	77.9	124.9	30.7	10.7	41.4

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1991
Month: December

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	13.2	15.7	25.5	25.5	19.7	19.9	27.6	12.2	100	97	66	61	89	83	0.0	0.0	0.0	8	8	5	3	2	5	2.0	3.0	5.0	2.2	0.0	2.2
2	12.8	15.0	25.7	26.0	18.6	19.6	26.3	12.0	100	97	71	64	90	84	0.0	0.0	0.0	8	8	5	2	1	5	1.5	4.7	6.2	1.3	0.0	1.3
3	13.5	15.5	25.0	25.0	19.0	19.6	25.9	12.0	100	97	74	74	90	87	0.0	0.0	0.0	8	8	3	4	1	5	1.2	4.0	5.2	1.0	0.0	1.0
4	15.5	18.0	22.6	23.2	18.0	19.5	23.5	15.5	100	95	81	77	95	90	1.2	0.0	1.2	8	7	7	1	1	5	1.9	1.8	3.7	0.6	0.0	0.6
5	17.0	20.7	24.6	25.3	17.4	21.0	25.4	11.3	100	84	70	63	92	82	0.0	0.0	0.0	8	6	6	1	0	4	2.7	3.5	6.2	1.2	0.0	1.2
6	13.0	15.0	22.7	22.5	16.6	18.0	23.6	12.0	100	95	77	77	94	89	0.0	0.0	0.0	8	8	7	8	2	7	1.0	1.2	2.2	0.7	0.0	0.7
7	11.5	14.0	21.5	24.5	16.5	17.6	24.8	12.0	100	99	78	64	90	86	0.0	0.0	0.0	8	8	1	1	0	4	2.0	4.4	6.4	0.9	0.0	0.9
8	12.5	14.6	23.6	22.0	17.3	18.0	24.6	11.2	100	99	55	58	87	80	0.0	0.0	0.0	8	8	4	6	4	6	1.5	2.6	4.1	1.1		1.1
9	11.0	13.0	23.0	23.0	20.0	18.0	24.0	10.0	100	88	57	74	72	78	0.0	0.0	0.0	8	8	6	5	3	6	0.5	4.5	5.0	1.5	0.5	2.0
10	13.0	15.0	23.0	23.0	20.0	18.8	23.5	10.0	100	89	74	74	81	84	0.0	0.0	0.0	8	8	6	7	6	7	0.0	1.5	1.5	0.5	1.0	1.5
11	14.0	15.0	21.0	24.0	20.0	18.8	24.0	12.0	89	89	91	85	81	87	0.0	0.0	0.0	8	8	6	6	8	7	0.0	3.5	3.5	0.0	1.0	1.0
12	14.0	15.0	23.0	24.0	20.0	19.2	25.0	13.0	100	100	94	75	81	90	0.0	0.0	0.0	8	8	5	5	5	6	1.0	4.0	5.0	1.0	1.5	2.5
13	13.0	16.0	25.0	24.0	21.0	19.8	25.0	12.0	100	90	85	67	91	87	0.0	0.0	0.0	8	6	6	5	3	6	2.0	4.5	6.5	0.5	1.0	1.5
14	14.0	16.0	25.0	25.0	20.0	20.0	25.0	14.0	100	80	68	75	81	81	0.0	0.0	0.0	8	6	4	3	4	5	2.5	4.0	6.5	0.0	0.5	0.5
15	14.0	15.0	23.0	24.0	20.0	19.2	25.0	12.0	88	89	74	67	81	80	0.0	0.0	0.0	8	8	4	4	6	6	1.5	4.5	6.0	1.0	1.0	2.0
16	10.5	12.0	21.0	22.8	15.0	16.3	23.6	10.0	100	100	73	66	96	87	0.0	0.0	0.0	8	8	4	6	3	6	1.5	4.5	6.0	1.2	0.1	1.3
17	9.0	10.5	21.0	21.5	14.6	15.3	22.5	9.0	100	99	65	65	93	84	0.0	0.0	0.0	8	8	6	5	7	7	1.0	4.2	5.2	1.2	0.1	1.3
18	8.7	10.0	19.5	22.2	15.0	15.1	23.0	7.5	100	100	74	64	89	85	0.0	0.0	0.0	8	8	4	3	2	5	1.5	4.0	5.5	0.0	0.0	0.0
19	8.0	9.5	20.5	22.7	16.0	15.3	23.5	7.6	100	99	73	69	87	86	0.0	0.0	0.0	8	8	3	2	4	5	1.0	4.8	5.8	1.4	0.0	1.4
20	10.0	13.0	19.5	20.7	16.5	15.9	21.7	7.5	100	93	74	70	90	85	0.0	0.0	0.0	8	8	7	7	6	7	0.0	0.0	0.0	0.9	0.1	1.0
21	10.8	14.0	18.5	20.5	17.2	16.2	21.5	8.2	99	91	81	68	88	85	0.0	0.0	0.0	8	8	7	7	8	8	0.0	0.0	0.0	0.8	0.2	1.0
22	12.5	16.4	21.0	21.0	18.2	17.8	22.0	12.0	96	85	66	69	88	81	0.0	0.0	0.0	8	8	7	8	8	8	0.0	0.0	0.0	1.2	0.0	1.2
23	12.9	14.2	21.6	22.2	15.8	17.3	23.0	12.3	100	94	66	64	93	83	0.0	0.0	0.0	8	8	7	7	0	6	0.7	1.6	2.3	1.3	0.0	1.3
24	10.5	11.6	21.8	25.5	16.0	17.1	25.5	10.0	100	100	67	60	79	81	0.0	0.0	0.0	8	8	1	2	0	4	0.7	4.8	5.5	1.2	0.1	1.3
25	10.0	11.5	22.5	26.0	17.0	17.4	26.4	10.0	100	100	70	61	89	84	0.0	0.0	0.0	8	8	1	1	0	4	1.2	4.0	5.2	1.0	0.1	1.1
26	12.5	16.0	21.5	22.6	19.5	18.4	24.1	11.6	100	91	78	82	90	88	0.0	0.9	0.9	8	8	8	8	6	8	0.0	0.1	0.1	0.7	0.1	0.8
27	17.1	18.7	21.0	20.5	19.6	19.4	22.4	17.5	100	99	89	97	97	96	2.0	0.2	2.2	8	8	8	8	8	8	0.0	0.0	0.0	0.2	0.0	0.2
28	16.5	19.0	24.5	24.8	18.0	20.6	25.2	12.0	100	93	73	71	86	85	0.0	0.0	0.0	8	7	4	2	2	5	1.5	4.8	6.3	1.2	1.0	2.2
29	10.6	11.8	11.6	11.3	10.6	11.2	18.7	10.5	91	87	88	90	92	90	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	0.7	0.0	0.7
30	10.0	13.0	17.0	20.0	15.0	15.0	20.0	10.0	100	88	80	64	80	82	0.0	0.0	0.0	8	8	6	5	3	6	1.5	2.0	3.5	1.0	0.0	1.0
31	10.0	12.0	15.0	22.0	15.0	14.8	20.0	9.0	100	100	80	65	80	85	0.0	0.0	0.0	8	8	7	6	3	6	1.5	3.0	4.5	1.0	1.5	2.5
Average	12.3	14.4	21.7	22.8	17.5	17.7	23.8	11.2	99	94	75	70	87	85									6	1.1	2.9	4.0	0.9	0.3	1.2
1-10						19.0	24.9	11.8						84									5			4.6			1.3
11-20						17.5	23.8	10.5						85									6			5.0			1.3
21-31						16.8	22.6	11.2						86									6			2.5			1.2
Total																	4.3							33.4	89.5	122.9	28.5	9.8	38.3

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: January

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	13.0	14.0	20.0	24.0	20.0	18.2	24.0	11.0	100	80	81	67	100	86	0.0	0.0	0.0	8	8	3	7	7	7	0.0	2.5	2.5	1.0	1.5	2.5
2	14.0	15.0	25.0	25.0	20.0	19.8	25.0	12.0	100	100	61	76	88	85	0.0	0.0	0.0	8	8	6	6	3	6	1.5	2.5	4.0	0.0	0.5	0.5
3	14.0	15.0	22.0	15.0	20.0	17.2	25.0	12.0	100	100	82	75	100	91	0.0	0.0	0.0	8	6	6	7	7	7	1.0	3.0	4.0	0.5	0.5	1.0
4	16.0	17.0	24.0	24.0	20.0	20.2	25.0	15.0	100	90	67	67	60	77	7.0	0.0	7.0	8	8	6	3	3	6	1.5	2.5	4.0	0.5	1.0	1.5
5	6.0	10.0	22.0	25.0	16.0	15.8	24.0	6.0	100	100	65	61	80	81	0.0	0.0	0.0	8	6	0	0	0	3	2.0	3.0	5.0	0.5	0.5	1.0
6	5.7	7.4	20.2	22.5	17.0	14.6	23.2	5.0	100	100	67	69	86	84	0.0	0.0	0.0	8	8	5	6	3	6	1.5	3.0	4.5	1.3	0.0	1.3
7	12.2	15.5	18.5	21.5	17.0	16.9	21.6	12.2	100	91	90	78	90	90	0.0	0.0	0.0	8	6	6	5	3	6	0.6	2.0	2.6	1.2	0.1	1.3
8	15.0	19.0	19.7	19.5	16.7	18.0	21.5	14.0	93	81	79	82	90	85	0.0	0.0	0.0	6	5	8	8	4	6	1.6	1.2	2.8	1.4	0.1	1.5
9	11.2	14.5	22.7	24.0	18.5	18.2	24.2	10.2	100	92	72	67	90	84	0.0	0.0	0.0	8	8	6	7	6	7	1.9	3.4	5.3	1.2	0.2	1.4
10	12.5	14.0	22.0	22.7	17.2	17.7	23.5	11.0	100	94	74	72	90	86	0.0	0.0	0.0	8	8	5	4	6	6	2.0	3.0	5.0	1.1	0.1	1.2
11	12.5	15.0	22.5	22.4	18.5	18.2	23.0	10.2	100	95	68	69	85	83	0.0	0.0	0.0	8	8	6	7	4	7	1.9	2.8	4.7		0.1	0.1
12	10.5	11.8	21.7	24.0	16.0	16.8	24.0	9.5	100	100	73	67	95	87	0.0	0.0	0.0	8	8	6	4	3	6	0.7	3.4	4.1		0.2	0.2
13	11.2	12.3	20.5	24.5	18.0	17.3	24.1	9.4	100	99	73	68	86	85	0.0	0.0	0.0	8	8	2	3	1	4	0.2	4.5	4.7	1.1	0.5	1.6
14	13.2	12.6	13.3	13.9	12.5	13.1	14.2	9.5	86	84	82	84	88	85	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	1.4	0.2	1.6
15	10.5	14.5	16.5	17.1	13.5	14.4	17.4	10.0	93	80	84	72	89	84	0.0	0.0	0.0	8	6	8	5	6	7	0.0	0.5	0.5	1.2	0.4	1.6
16	9.7	14.1	18.0	17.3	14.0	14.6	18.0	8.7	97	88	77	82	91	87	0.0	0.0	0.0	8	8	8	8	0	6	0.0	0.0	0.0	1.1	0.0	1.1
17	10.6	14.5	17.8	18.2	13.5	14.9	18.2	7.5	99	89	77	81	94	88	0.0	0.0	0.0	8	8	8	8	0	6	0.0	1.5	1.5	1.0	0.0	1.0
18	9.3	11.8	19.5	20.0	16.5	15.4	21.0	7.0	100	96	74	79	90	88	0.0	0.0	0.0	7	8	8	7	6	7	0.8	2.0	2.8	1.2	0.1	1.3
19	10.7	12.5	19.6	22.5	18.0	16.7	23.4	8.5	100	95	73	70	88	85	0.0	0.0	0.0	8	8	3	5	5	6	1.1	1.6	2.7	1.2		1.2
20	10.0	12.0	20.0	20.0	18.0	16.0	22.0	9.0	100	88	64	64	100	83	0.0	0.0	0.0	8	8	3	7	5	6	2.0	4.5	6.5	1.4	1.0	2.4
21	8.0	10.0	17.0	23.0	19.0	15.4	23.0	7.0	100	100	80	74	72	85	0.0	0.0	0.0	8	8	3	4	4	5	2.0	4.0	6.0	2.0	2.5	4.5
22	8.0	10.0	20.0	22.0	18.0	15.6	23.0	7.0	100	100	72	65	80	83	0.0	0.0	0.0	8	8	5	7	6	7	0.5	4.5	5.0	1.0	0.0	1.0
23	10.0	12.0	17.0	20.0	18.0	15.4	22.0	9.0	100	100	90	81	80	90	0.0	0.0	0.0	8	8	8	6	3	7	1.0	5.0	6.0	1.0	1.5	2.5
24	12.0	12.0	16.0	23.0	17.0	16.0	24.0	11.5	100	100	80	59	100	88	0.0	0.0	0.0	8	8	3	6	2	5	0.0	5.5	5.5	1.0	1.0	2.0
25	8.0	10.0	20.0	24.0	17.0	15.8	24.0	7.0	100	100	64	67	90	84	0.0	0.0	0.0	8	8	5	5	3	6	2.5	4.5	7.0	1.0	0.5	1.5
26	10.0	11.0	22.0	25.0	21.0	17.8	25.0	9.0	100	87	82	61	93	85	0.0	0.0	0.0	8	8	5	6	4	6	2.5	3.0	5.5	0.0	1.3	1.3
27	10.5	15.0	23.7	25.5	19.0	18.7	26.0	10.0	100	92	72	65	90	84	0.0	0.0	0.0	8	4	4	6	8	6	3.0	4.0	7.0	1.5	0.1	1.6
28	12.0	14.3	25.2	26.7	20.0	19.6	27.2	11.2	100	97	67	56	91	80	0.0	0.0	0.0	8	6	5	3	3	5	3.0	5.0	8.0	2.1	0.1	2.2
29	11.0	13.1	26.4	26.7	19.6	19.4	27.4	10.0	100	99	51	52	80	76	0.0	0.0	0.0	8	7	3	1	1	4	2.4	5.0	7.4	2.6	0.1	2.7
30	8.5	12.0	25.5	26.7	19.0	18.3	27.5	8.0	100	94	48	49	67	72	0.0	0.0	0.0	8	3	0	0	0	2	2.9	5.3	8.2	2.9	0.1	3.0
31	6.6	12.2	25.6	27.5	19.0	18.2	28.0	5.8	100	88	50	48	81	73			0.0	8	0	1	2	0	2	2.8	5.1	7.9		0.1	0.1
Average	10.7	13.0	20.8	22.4	17.7	16.9	23.2	9.5	99	94	72	69	87	84									6	1.4	3.2	4.5	1.2	0.5	1.5
1-10						17.7	23.7	10.8						85									6			4.0			1.3
11-20						15.7	20.5	8.9						86									6			2.8			1.2
21-31						17.3	25.2	8.7						82									5			6.7			2.0
Total																	7.0							42.9	97.8	140.7	33.4	14.3	47.7

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: February

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	9.5	11.8	18.0	22.0	18.5	16.0	22.6	8.2	100	96	85	76	90	89	0.0	0.0	0.0	8	8	8	6	6	7	0.8	1.2	2.0	0.9	0.2	1.1
2	12.3	13.2	25.5	26.4	19.0	19.3	27.0	12.4	100	100	50	46	76	74	0.0	0.0	0.0	8	8	8	1	0	5	1.9	5.4	7.3	1.8	0.1	1.9
3	7.0	10.5	27.0	27.2	21.0	18.5	28.1	6.0	100	97	53	52	74	75	0.0	0.0	0.0	8	4	1	4	1	4	2.4	4.4	6.8	2.3	0.1	2.4
4	9.3	14.0	27.1	28.3	19.6	19.7	28.4	8.9	100	94	53	49	78	75	0.0	0.0	0.0	8	7	1	1	0	3	2.7	5.2	7.9	2.4	0.2	2.6
5	9.0	16.5	27.5	29.0	20.5	20.5			100	81	50	46	78	71	0.0	0.0	0.0	1	3	3	0	0	1	3.0	5.2	8.2	2.5	0.1	2.6
6	7.7	14.5	27.5	28.6	21.0	19.9			100	89	50	47	69	71	0.0	0.0	0.0	8	4	4	4	4	5	3.1	4.9	8.0	2.7	0.3	3.0
7	8.0	16.5	26.7	28.0	20.0	19.8			100	81	42	38	69	66	0.0	0.0	0.0	8	5	2	1	0	3	3.0	5.2	8.2	2.4	0.1	2.5
8	6.5	15.6	24.0	28.5		18.7			100	78	36	35		62				0	3	1	0		1						0.0
9																													0.0
10	8.0	16.0	24.0	24.0	23.0	19.0	28.0	7.0	100	87	91	81	74	87	0.0	0.0	0.0	4	5	7	5	3	5	2.0	0.5	2.5	1.0	2.0	3.0
11	10.0	18.0	27.0	26.0	25.0	21.2	28.0	11.0	100	73	31	36	47	57	0.0	0.0	0.0	5	0	5	5	3	4	3.0	4.5	7.5	2.0	2.0	4.0
12	10.0	16.0	25.0	26.0	24.0	20.2	27.0	8.0	87	80	56	55	69	69	0.0	0.0	0.0	0	3	5	3	0	2	3.5	4.0	7.5	0.5	4.0	4.5
13	6.0	15.0	23.0	25.0	22.0	18.2	26.0	6.0	100	78	74	61	91	81	0.0	0.0	0.0	8	3	3	3	2	4	4.0	3.5	7.5	0.0	1.0	1.0
14	7.0	10.0	20.0	28.0	20.0	17.0	28.0	7.0	100	100	65	77	55	79	0.0	0.0	0.0	8	7	0	2	3	4	3.5	4.5	8.0	0.5	1.5	2.0
15	8.0	17.0	25.0	28.0	24.0	20.4	29.0	7.0	100	80	47	77	33	67	0.0	0.0	0.0	3	3	4	3	5	4	4.0	4.0	8.0	2.0	1.0	3.0
16	9.0	18.0	27.0	28.0	25.0	21.4	29.0	9.0	100	71	47	44	36	60	0.0	0.0	0.0	5	3	3	5	3	4	3.5	4.5	8.0	0.0	2.0	2.0
17	10.5	19.0	28.0	28.0	23.6	21.8	29.0	9.4	93	67	58	37	55	62	0.0	0.0	0.0	6	2	6	4	2	4	3.8	3.0	6.8	3.0	0.1	3.1
18	14.5	20.5	29.2	30.0	23.5	23.5	31.0	12.2	91	52	32	25	49	50	0.0	0.0	0.0	8	6	3	1	1	4	3.1	5.0	8.1		0.4	0.4
19	11.1	22.0	28.0	28.2	24.0	22.7	29.2	10.5	95	59	70	33	46	61	0.0	0.0	0.0	6	7	6	3	0	4	3.0	5.2	8.2	2.8	0.4	3.2
20	8.5	18.0	28.1	29.5	24.0	21.6	30.5	8.0	93	71	32	30	39	53	0.0	0.0	0.0	4	0	4	3	2	3	3.8	4.5	8.3	2.7	0.3	3.0
21	13.5	19.7	25.0	26.0	22.0	21.2	27.5	12.0	94	67	53	50	63	65	0.0	0.0	0.0	6	7	7	7	3	6	2.0	2.0	4.0	2.0	0.4	2.4
22	14.5	19.5	25.8	24.0	22.0	21.2	27.6	13.6	88	66	49	56	65	65	0.0	0.0	0.0	7	6	6	6	8	7	1.8	2.3	4.1	2.8	0.6	3.4
23	14.2	19.0	24.0		20.2	19.4	26.5	14.0	84	67	53		68	68	0.0	0.0	0.0	8	2	3		8	5	2.3	3.4	5.7		0.3	0.3
24	15.5	16.3	21.0	21.5	18.1	18.5	22.0	15.4	84	89	73	61	74	76	0.0	0.0	0.0	8	8	8	8	1	7	1.0	1.2	2.2	1.9	0.8	2.7
25	13.6	16.0	17.0	18.9	16.5	16.4	20.5	13.5	89	80	82	72	86	82	0.5	25.6	26.1	4	8	8	8	8	7	0.0	0.0	0.0	1.0	0.0	1.0
26	13.6	14.2	15.5	15.1	15.0	14.7	17.3	13.6	99	100	95	97	100	98	10.4	17.3	27.7	8	8	8	8	8	8	0.0	0.0	0.0	1.0	0.0	1.0
27	13.4	16.2	20.5	23.5	19.1	18.5	23.7	13.0	99	87	62	42	56	69	0.0	0.0	0.0	8	6	5	3	0	4	2.5	3.9	6.4	2.4	0.1	2.5
28	6.7	11.5	24.6	25.5	20.5	17.8	26.5	6.0	100	91	40	34	68	67	0.0	0.0	0.0	8	0	1	2	0	2	3.3	4.3	7.6	2.1	0.3	2.4
29	8.0	15.5	25.9	27.0		19.1	27.8	7.0	97	75	40	37		62				3	0	2	6		3						
30																													
31																													
Average	10.2	16.1	24.5	25.9	21.2	19.5	26.7	9.9	96	81	56	52	66	70				6	5	4	4	3	4	2.6	3.5	6.1	1.8	0.7	2.2
1-10						19.0	26.8	8.5						75									4			6.4			1.9
11-20						20.8	28.7	8.8						64									4			7.8			2.6
21-31						18.5	24.4	12.0						72									5			3.8			2.0
Total															10.9	42.9	53.8							67.0	91.8	158.8	42.7	18.3	61.0

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: March

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1			27.0	27.5	21.6	25.4	28.0				37	41	60	46	0.0	0.0	0.0			3	6	3	4			0.0	2.6		2.6
2	10.0	19.0	27.0	28.0	25.0	21.8	29.0	10.0	100			45	40	62	0.0	0.0	0.0	5	0	5	5	3	4	4.0	4.5	8.5	0.5	6.5	7.0
3	10.0	18.0	28.0	28.0	25.0	21.8	30.0	10.0	100	72	55	44	40	62	0.0	0.0	0.0	5	0	1	0	0	1	4.0	4.6	8.6	0.5	1.0	1.5
4	10.0	18.0	29.0	20.0	25.0	20.4	30.0	10.0	100	71	40	35	28	55	0.0	0.0	0.0	0	0	5	3	0	2	4.2	4.5	8.7	1.5	1.0	2.5
5	12.0	17.0	29.0	30.0	25.0	22.6	31.0	11.0	100	80	40	35	47	60	0.0	0.0	0.0	6	0	3	3	0	2	3.5	5.0	8.5	1.0	4.0	5.0
6	13.0	19.0	26.0	30.0	27.0	23.0	30.0	11.0	88	72	61	35	49	61	0.0	0.0	0.0	3	0	7	6	2	4	3.0	4.5	7.5	0.0	2.0	2.0
7	10.0	24.0	21.0	26.0	29.0	22.0	30.0	10.0	88	65	69	51	61	67	0.0	0.0	0.0	5	6	8	7	4	6	3.5	3.0	6.5	0.5	2.5	3.0
8	15.0	19.0	28.0	30.0	27.0	23.8	31.0	12.0	80	81	56	46	91	71	0.0	0.0	0.0	8	8	5	5	3	6	3.0	3.0	6.0	0.5	4.0	4.5
9	12.3	21.5	29.5	31.5	26.0	24.2	31.5	12.0	96	74	38	35	55	60	0.0	0.0	0.0	8	0	1	0	0	2	4.0	5.0	9.0	4.2	0.1	4.3
10	10.6	19.5	29.2	31.0	23.5	22.8	31.5	10.2	99	73	55	59	60	69	0.0	0.0	0.0	6	0	1	0	0	1	3.6	5.3	8.9		0.5	0.5
11	10.7	19.0	30.0	29.0	24.6	22.7	32.0	10.0	98	72	44	64	56	67	0.0	0.0	0.0	6	0	2	0	0	2	4.0	4.5	8.5	3.2	0.3	3.5
12	10.0	19.0	29.5	32.0	25.4	23.2	32.0	10.2	100	76	38	54	56	65	0.0	0.0	0.0	6	0	0	0	0	1	3.6	5.3	8.9	3.5	0.3	3.8
13	9.5	19.0	30.5	32.0	29.0	24.0	32.5	9.5	99	74	39	38	40	58	0.0	0.0	0.0	6	0	0	0	0	1	2.3	4.0	6.3	4.8	0.3	5.1
14	11.8	19.6	31.0	32.0	26.3	24.1	32.5	10.0	96	72	33	41	27	54	0.0	0.0	0.0	4	3	4	3	4	4	4.9	4.0	8.9	3.6		3.6
15	10.5	20.5	32.0	32.5	27.5	24.6	33.2	10.5	100	68	36	34	29	53	0.0	0.0	0.0	5	3	3	3	0	3	4.5	5.0	9.5		1.4	1.4
16	10.5	18.6	31.5	32.1	26.6	23.9	33.3	10.3	100	75	43	37	52	61	0.0	0.0	0.0	6	5	4	3	4	4	2.6	3.3	5.9	3.1	0.5	3.6
17	11.6	21.4	32.0	32.1	26.0	24.6	32.8	11.5	99	70	38	36	58	60	0.0	0.0	0.0	3	3	2	1	1	2	3.5	4.6	8.1	3.5	0.4	3.9
18	10.9	21.4	32.0	33.3	26.1	24.7	33.4	11.9	99	70	38	39	58	61	0.0	0.0	0.0	6	4	4	3	2	4	3.0	4.5	7.5	4.0	0.5	4.5
19	11.5	20.5	32.2	32.5	25.0	24.3	33.7	11.5	100	72	35	42	57	61	0.0	0.0	0.0	5	4	3	3	3	4	3.1	4.7	7.8	4.8	0.4	5.2
20	10.9	18.5	31.0	32.5	23.5	23.3	33.1	10.9	95	76	46	35	69	64	0.0	0.0	0.0	6	5	4	5	5	5	3.0	4.5	7.5	3.5	0.3	3.8
21	11.1	18.5	31.5	32.6	25.5	23.8	32.7	11.1	99	76	43	41	72	66	0.0	0.0	0.0	8	5	5	4	4	5	1.2	1.5	2.7	2.8	0.4	3.2
22	12.5	19.5	32.0	34.0	27.7	25.1	34.9	11.0	100	81	43	35	45	61	0.0	0.0	0.0	7	5	4	4	4	5	2.5	4.5	7.0	3.4		3.4
23	13.0	20.0	32.0	34.0	25.0	24.8	33.0	13.0	100	55	38	45	61	60	0.0	0.0	0.0	7	0	0	0	0	1	2.4	4.2	6.6	3.6	2.0	5.6
24	13.0	24.0	34.0	35.0	30.0	27.2	34.0	13.0	88	67	45	41	64	61	0.0	0.0	0.0	7	0	0	0	0	1	3.0	4.0	7.0	3.0	5.0	8.0
25	14.0	24.0	30.0	33.0	30.0	26.2	34.0	14.0	80	67	64	54	60	65	0.0	0.0	0.0	1	1	1	1	1	1	3.5	3.6	7.1	1.0	0.0	1.0
26	15.0	25.0	32.0	34.0	30.0	27.2	34.0	14.0	89	61	54	45	64	63	0.0	0.0	0.0	1	1	1	1	1	1	4.0	2.5	6.5	0.0	4.0	4.0
27	15.0	23.0	32.0	34.0	30.0	26.8	34.0	15.0	100	74	54	45	64	67	0.0	0.0	0.0	7	7	6	0	0	0	3.0	3.5	6.5	1.0	1.0	2.0
28	15.0	20.0	33.0	34.0	30.0	26.4	34.0	14.0	80	81	49	45	85	68	0.0	0.0	0.0	7	0	0	0	0	1	2.0	1.5	3.5	1.0	0.0	1.0
29	20.0	24.0	28.0	27.0	26.0	25.0	28.0	18.0	81	67	70	76	60	71	0.0	0.0	0.0	8	0	0	0	0	2	0.0	0.0	0.0	1.0	2.0	3.0
30	16.5	23.4	33.0	34.5	27.5	27.0	35.3	16.5	100	79	47	38	73	67	0.0	0.0	0.0	8	3	2	4	6	5	3.8	5.0	8.8	5.0	0.7	5.7
31	15.2	23.5	34.0	34.5	26.8	26.8	35.0	15.2	98	76	38	47	71	66	0.0	0.0	0.0	7	3	6	6	0	4	3.1	4.0	7.1	5.2	0.3	5.5
Average	12.4	20.6	30.2	31.2	26.5	24.3	32.2	11.9	95	72	46	44	57	62				6	2	3	2	2	3	3.2	3.9	6.9	2.5	1.5	3.7
1-10						22.8	30.2	10.7						61									3			7.2			3.3
11-20						23.9	32.9	10.6						60									3			7.9			3.8
21-31						26.0	33.5	14.1						65									2			5.7			3.9
Total																	0.0							95.8	118.1	213.9	72.3	41.4	113.7

Daily Meteorological Record

Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: April

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1	16.5	24.5	33.0	34.5	25.5	26.8	35.0	16.5	95	69	47	41	72	65	0.0	0.0	0.0	6	3	3	4	6	4	1.8	4.5	6.3	3.7		3.7
2	17.5	23.0	33.0	33.5	28.0	27.0	34.6	17.0	97	82	43	45	56	65	0.0	0.0	0.0	6	4	2	1	3	3	3.0	4.3	7.3	4.4	0.8	5.2
3	15.0	22.5	33.0	33.5	27.5	26.3	34.0	14.0	95	73	42	41	88	68	0.0	0.0	0.0	6	3	3	3	3	4	2.8	4.4	7.2	4.9	0.6	5.5
4	14.0	21.0	33.5	33.6	23.6	25.1	34.0	14.0	96	72	35	35	62	60	0.0	0.0	0.0	6	3	3	1	0	3	0.9	3.8	4.7	1.0	0.6	1.6
5	14.2	22.0	33.0	33.0	27.5	25.9	34.0	14.2	96	65	35	37	53	57	0.0	0.0	0.0	6	3	1	3	3	3	0.9	4.2	5.1	4.9	0.5	5.4
6										81				81	0.0	0.0	0.0	6					6			0.0			0.0
7	16.1	20.0	31.5	32.0	27.0	25.3	32.6	15.0	94	81	54	48	66	69	0.0	8.0	8.0	7	6	5	6	7	6	0.0	0.0	0.0	3.5	0.5	4.0
8	17.5	20.5	28.0	33.0	27.4	25.3	33.0	17.3	100	89	70	49	69	75	0.0	0.0	0.0	8	8	6	6	5	7	1.5	4.5	6.0	2.0	0.3	2.3
9	18.0	25.0	34.1	35.1	29.7	28.4	36.0	17.5	95	75	47	42	60	64	0.0	0.0	0.0	6	5	4	4	3	4	4.0	3.0	7.0	3.1	0.6	3.7
10	18.5	28.0	34.6	36.0	29.8	29.4	36.5	18.3	95	65	44	38	53	59	0.0	0.0	0.0	6	5	2	4	3	4	3.6	4.7	8.3	3.4	0.0	3.4
11	17.5	26.0	35.0	36.0	27.5	28.4	36.7	16.9	90	69	41	38	63	60	0.0	0.0	0.0	6	4	3	3	2	4	4.1	5.0	9.1	4.2	0.8	5.0
12	18.0	25.0	34.5	35.0	31.6	28.8	36.0	17.0	93	68	51	44	55	62	0.0	0.0	0.0	6	6	5	6	0	5	2.3	1.9	4.2	3.7		3.7
13	18.0	26.0	30.0	35.0	30.0	27.8	35.0	17.5	90	83	74	46	64	71	0.0	0.0	0.0	6	6	5	3	5	5	3.0	3.5	6.5	4.0	6.0	10.0
14	23.0	25.0	28.0	30.0	25.0	26.2	30.0	20.0	74	61	77	64	61	67	0.0	0.0	0.0	8	3	3	7	7	6	3.5	2.5	6.0	2.0	5.0	7.0
15	20.0	17.0	30.0	30.0	28.0	25.0	29.0	11.0	46	70	64	63	40	57	0.0	9.0	9.0	3	6	0	0	5	3	4.0	3.0	7.0	2.0	0.5	2.5
16	16.0	18.0	24.0	25.0	23.0	21.2	29.0	19.0	100	80	67	90	74	82	0.0	0.0	0.0	8	8	3	3	8	6	0.0	0.0	0.0	2.0	1.0	3.0
17	18.0	22.0	28.0	33.0	33.0	26.8	33.0	18.0	90	82	77	49	64	72	4.0	0.0	4.0	8	6	6	6	7	7	3.0	4.0	7.0	1.0	2.0	3.0
18	17.0	25.0	30.0	33.0	30.0	27.0	34.0	17.0	100	61	64	55	76	71	11.0	0.0	11.0	8	6	5	3	5	5	4.3	3.5	7.8	0.5	3.0	3.5
19	16.5	25.0	33.0	34.0	30.0	27.7	34.0	14.5	97	76	53	45	64	67	0.0	0.0	0.0	8	4	5	5	4	5	4.0	5.0	9.0	1.0	2.5	3.5
20	16.4	25.1	34.7	35.7	27.0	27.8	36.5	16.0	85	68	36	35	59	57	0.0	0.0	0.0	2	1	6	3	2	3	4.5	5.0	9.5	4.5	0.5	5.0
21	16.0	24.5	34.7	35.5	28.5	27.8	35.6	14.0	95	67	40	37	57	59	0.0	0.0	0.0	3	1	3	2	1	2	4.5	4.9	9.4		0.6	0.6
22	15.5	26.5	35.0	35.5	27.2	27.9	36.5	15.0	95	62	34	34	59	57	0.0	0.0	0.0	4	3	3	2	1	3	4.5	5.0	9.5	6.2	0.6	6.8
23	16.2	26.0	35.5	36.8	31.0	29.1	37.5	16.0	89	61	37	33	48	54	0.0	0.0	0.0	3	5	1	3	6	4	4.5	5.3	9.8	5.9	0.6	6.5
24	17.7	24.2	35.0	34.3	29.5	28.1	36.0	16.4	90	70	45	46	67	64	0.0	0.0	0.0	8	6	6	7	6	7	3.5	4.5	8.0		0.5	0.5
25	22.0	27.5	28.2	30.5	27.5	27.1	31.0	21.0	87	65	65	55	84	71	0.0	0.0	0.0	8	6	8	8	6	7	1.0	2.0	3.0	2.3	1.0	3.3
26	21.5	26.5	33.5	35.0	30.0	29.3	25.2	21.0	95	73	51	51	61	66	0.0	0.0	0.0	8	6	6	7	5	6	3.0	4.5	7.5	3.5	1.1	4.6
27	20.1	29.4	34.5	29.0	26.7	27.9	36.5	18.7	94	65	48	62	73	68	0.0	0.0	0.0	8	3	6	7	8	6			0.0	3.8	0.6	4.4
28	20.6	27.2	34.5	34.5	32.5	29.9	36.6	20.5	94	66	44	43	55	60	0.0	0.0	0.0	8	1	1	8	5	5	4.3	3.4	7.7	5.2	1.0	6.2
29	19.6	29.6	34.9	33.5	30.5	29.6	36.0	18.4	92	58	44	53	59	61	0.0	0.0	0.0	8	1	6	8	2	5	4.1	2.9	7.0	5.7	0.8	6.5
30	19.5	30.0	35.4	36.0	34.0	31.0	37.1	19.0	93	55	42	43	58	58	0.0	0.0	0.0	3	4	1	6	0	3	4.0	4.8	8.8	5.3	1.9	7.2
31																													
Average	17.8	24.6	32.5	33.5	28.6	27.4	34.2	16.9	91	70	51	47	63	65				6	4	4	4	4	5	3.0	3.7	6.3	3.5	1.3	4.3
1-10						26.6	34.4	16.0						66									4			5.2			3.5
11-20						26.7	33.3	16.7						67									5			6.6			4.6
21-31						28.8	34.8	18.0						62									5			7.1			4.7
Total																	32.0							84.6	104.1	188.7	93.7	33.9	127.6

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: May

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	21.5	30.0	33.4	34.6	31.6	30.2	36.0	20.9	87	59	47	41	48	56	0.0	0.0	0.0	0	3	2	4	0	2	3.5	4.5	8.0	5.3	1.2	6.5
2	19.2	30.1	34.6	31.5	30.6	29.2	35.5	18.0	89	61	45	60	64	64	0.5	0.0	0.5	2	2	6	3	4	3	4.8	2.9	7.7	3.8	1.0	4.8
3	19.0	29.1	33.8	35.6	32.5	30.0	36.0	13.3	95	62	49	46	55	61	0.0	0.0	0.0	1	2	6	5	1	3	5.7	3.7	9.4	4.0		4.0
4	19.0	25.0	34.0	35.0	30.0	28.6	35.0	17.0	81	68	45	46	64	61	0.0	0.0	0.0	3	0	6	6	5	4	4.5	5.0	9.5	4.0	3.0	7.0
5	20.0	27.0	35.0	35.0	30.0	29.4	35.0	18.0	100	76	41	46	46	62	0.0	0.0	0.0	7	3	5	4	4	5	4.0	4.5	8.5	2.0	4.0	6.0
6	17.0	30.0	34.0	35.0	30.0	29.2	35.0	17.0	81	64	45	41	64	59	0.0	0.0	0.0	0	0	5	5	3	3	5.5	5.5	11.0	1.0	5.0	6.0
7	21.0	31.0	34.0	34.0	30.0	30.0	36.0	12.0	91	42	45	43	52	55	0.0	0.0	0.0	0	0	6	6	0	2	5.0	5.5	10.5	4.0	3.0	7.0
8	18.0	32.0	36.0	36.0	30.0	30.4	35.0	18.0	90	58	92	37	64	68	0.0	0.0	0.0	0	0	3	5	0	2	5.2	5.0	10.2	3.0	2.0	5.0
9	18.0	30.0	34.0	36.0	30.0	29.6	36.0	17.0	100	84	50	40	64	64	0.0	0.0	0.0	5	3	3	3	3	3	4.0	5.0	9.0	0.0	6.0	6.0
10	17.0	24.0	34.0	35.0	25.0	27.0	36.0	17.0	82	75	55	51	64	65	0.0	0.0	0.0	0	0	6	8	7	4	4.0	4.3	8.3	1.0	4.0	5.0
11	20.5	28.8	25.5	21.0	22.0	23.6	32.5	19.0	91	68	84	100	97	88	57.3	0.0	57.3	6	8	8	8	6	7	0.0	0.6	0.6	1.0	0.0	1.0
12	20.5	25.0	31.7	34.2	30.0	28.3	34.5	20.5	100	88	62	55	71	75	0.0	0.0	0.0	8	6	5	5	4	6	2.8	4.0	6.8	2.6	0.1	2.7
13	21.5	29.2	34.5	31.0	26.5	28.5	35.5	20.2	95	73	56	59	73	71	0.0	0.0	0.0	6	1	6	7	7	5	4.2	4.0	8.2	0.0	0.7	0.7
14	21.5	25.1	33.0	34.0	31.0	28.9	35.5	21.5	91	83	60	55	63	70	0.0	0.0	0.0	8	6	4		5	6	2.9	5.0	7.9	3.0	1.8	4.8
15	20.7	24.5	25.0	26.4	25.0	24.3	27.0	20.8	100	86	83	73	83	85	37.3	0.0	37.3	8	8	8	8	6	8	0.0	1.0	1.0	1.0	0.8	1.8
16	21.7	27.0	30.0	31.0	25.0	26.9	31.0	21.0	95	73	64	63	92	77	0.0	4.3	4.3	8	6	6	5	7	7	1.0	3.0	4.0	1.7	0.2	1.9
17	20.0	26.2	30.7	33.0	30.5	28.1	33.2	19.7	98	75	59	55	59	69	17.2	0.0	17.2	8		6	6	6	7	3.3	5.8	9.1	2.5	0.7	3.2
18	22.1	29.5	31.5	32.4	28.5	28.8	34.0	21.0	95	63	57	57	70	68	0.0	3.4	3.4	3	6	7	6	6	6	5.5	2.9	8.4	3.0	0.2	3.2
19	21.6	26.5	30.6	26.5	28.5	26.7	31.5	21.3	99	66	62	76	82	77	0.2	0.4	0.6	7	6	6	7	8	7	4.0	1.6	5.6	1.7	0.4	2.1
20	23.5	24.1	24.0	27.9	27.5	25.4	28.3	21.5	83	80	75	68	70	75	0.0	0.0	0.0	8	8	8	8	6	7	0.0	2.9	2.9	1.4	0.2	1.6
21	19.9	25.3	30.0	33.0	29.6	27.6	33.5	19.0	98	81	64	49	72	73	0.0	0.2	0.2	8	7	6	5	2	6	3.2	5.7	8.9	1.9	0.4	2.3
22	22.0	27.7	32.5	26.0	26.0	26.8	33.5	21.0	98	76	50	82	84	78	4.1	3.1	7.2	8	6	6	6	5	6	4.5	3.2	7.7	2.0	0.0	2.0
23	21.0	23.0	32.0	32.0	23.1	26.2	33.6	21.0	100	96	56	62	99	83	8.3	2.2	10.5	8	7	5	6	7	7	3.7	3.0	6.7	1.5	0.2	1.7
24	22.0	25.5	26.0	26.5	26.6	25.3	29.0	22.0	100	86	84	80	87	87	2.0		2.0	8	6	8	6	7	7	3.0	2.9	5.9	1.1		1.1
25	22.0	24.0	28.0	30.0	26.0	26.0	31.0	20.0	82	83	77	64	92	80	0.0	0.0	0.0	8	8	5	7	3	6	4.0	4.5	8.5	1.5	0.5	2.0
26	22.0	27.0	31.5	33.0	30.0	28.7	33.0	21.0	92	84	59	49	80	73	0.0	0.0	0.0	7	6	6	6	3	6	3.5	4.0	7.5	0.5	2.5	3.0
27	22.0	24.0	28.0	25.0	25.0	24.8	30.0	22.0	83	91	77	91	82	92	0.0	6.0	6.0	8	6	7	8	8	7	1.0	2.0	3.0	0.5	1.0	1.5
28	21.0	24.0	27.0	28.0	25.0	25.0	30.0	21.0	91	86	76	77	83	83	33.0		33.0	8	7	7	7	6	7	2.0	3.0	5.0	1.0	1.0	2.0
29	22.0	27.0	32.0	30.0	25.0	27.2	32.0	21.0	100	81	66	64	83	79	7.0		7.0	8	6	5	6	7	6	2.5	5.0	7.5	2.5	2.5	5.0
30	22.0	30.0	32.0	33.0	30.0	29.4	33.0	21.0	82	61	60	55	64	64	0.0	0.0	0.0	5	5	5	5	7	5	5.5	6.0	11.5	0.5	3.0	3.5
31	23.0	30.0	32.0					21.0	82	64	60				0.0	0.0	0.0	7	5	4							1.5		
Average	20.7	27.1	31.3	31.4	28.0	27.7	33.2	19.5	92	73	61	60	72	72				6	5	6	6	5	5	3.4	3.9	7.3	2.0	1.6	3.5
1-10						29.4	35.6	16.8						62									3			9.2			5.7
11-20						27.0	32.3	20.7						76									6			5.5			2.3
21-31						26.7	31.9	20.9						79									6			7.2			2.4
Total																	186.5							102.8	116.0	218.8	60.5	45.4	104.4

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: June

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1	24.0	31.5	33.9	29.1	27.5	29.2	34.4	22.0	90	66	60	80	86	77	2.8	0.0	2.8	6	6	6	5	6	6	3.0	4.0	7.0	2.0	0.2	2.2
2	23.5	30.8	27.7	35.5	30.5	29.6	35.6	22.0	94	70	60	54	73	70	0.0	0.0	0.0	5	3	5	6	7	5	4.0	5.0	9.0	3.1	0.5	3.6
3	23.8	28.5	32.1	34.2	31.0	29.9	35.0	22.0	93	78	68	60	71	74	0.0	3.4	3.4	6	7	7	6	3	6	4.0	5.0	9.0	0.0	0.4	0.4
4	24.0	24.2	23.5	28.0	26.0	25.1	28.0	23.5	96	94	91	75	80	87	2.9	0.0	2.9	8	8	8	5	7	7	0.2	3.0	3.2	1.0	0.5	1.6
5	23.0	27.0	27.5	28.5	26.7	26.5	29.0	22.5	94	81	73	74	86	82	0.0	0.0	0.0	8	8	8	7	7	8	0.0	1.5	1.5	1.2	0.3	1.5
6	23.5	24.6	26.5	30.7	28.0	27.1	31.0	23.0	91	85	72	65	74	77	0.0	2.3	2.3	8	8	8	8	5	7	0.0	2.0	2.0	1.6	0.4	2.0
7	23.0	26.2	25.5	28.3	25.5	25.7	28.5	22.6	97	82	84	70	84	83	10.2	0.0	10.2	8	8	6	5	7	7	0.0	1.0	1.0	1.0	0.8	1.8
8	22.5	27.0	29.0	30.6	27.1	27.2	31.0	11.0	91	66	62	59	50	66	0.0	0.0	0.0	7	6	6	1	6	5	2.0	4.3	6.3	2.6	0.4	3.0
9	20.0	26.0	31.1	31.5	30.5	27.8	32.5	19.0	93	76	59	55	69	70	0.0	0.0	0.0	6	5	7	6	6	6	5.2	4.0	9.2	2.3	0.5	2.8
10	22.5	29.0	31.0	25.6	26.0	26.8	31.6	21.0	92	70	65	87	84	80	0.0	0.0	0.0	7	6	6	8	7	7	5.6	0.6	6.2	1.6	0.3	1.9
11	22.4	27.4	28.5	26.6	25.7	26.1	30.6	21.3	95	72	74	98	82	84	0.8	0.0	0.8	7	7	6	8	8	7	1.9	2.2	4.1	1.3	0.3	1.6
12	23.4	27.0	23.5	25.8	25.3	25.0	29.6	22.0	94	79	96	87	84	88	10.6	0.0	10.6	8	8	8	8	7	8	1.7	1.1	2.8	0.8	0.1	0.9
13	23.1	28.0	25.5	27.0	28.0	26.3	29.5	21.5	96	80	88	83	84	86	3.0	0.0	3.0	8	5	8	7	8	7	2.6	0.2	2.8	0.9	0.3	1.2
14	24.0	28.6	31.0	23.7	26.0	26.7	32.0	23.0	96	73	65	98	92	85	20.4	0.0	20.4	8	8	6	7	7	7	3.4	1.2	4.6	0.9	1.3	2.2
15	23.0	26.0	30.0	28.0	26.0	26.6	32.0	22.0	91	92	64	77	46	74	0.0	0.0	0.0	6	8	7	7	8	7	3.0	2.0	5.0	1.0	1.0	2.0
16	24.5	28.0	27.2	29.4	27.1	27.2	31.5	23.3	89	74	79	75	69	77	0.0	0.0	0.0	6	8	7	7	7	7	3.3	1.0	4.3	1.0	0.6	1.6
17	24.1	25.0	27.9	25.0	23.4	25.1	30.0	23.0	93	88	78	89	99	89	0.0	0.2	0.2	8	7	7	7	7	7	0.3	1.4	1.7	1.3	0.2	1.5
18	23.0	23.8	23.0	23.6	24.0	23.5	27.0	22.5	97	97	100	93	97	97	10.4	0.2	10.6	8	8	8	8	7	8	0.0	0.0	0.0	0.5	0.1	0.6
19	23.0	26.0	23.0	23.5	24.0	23.9	29.5	22.3	96	88	100	99	98	96	6.7	0.0	6.7	8	8	8	8	8	8	0.0	0.0	0.0	0.1	0.1	0.2
20															8.5	0.0	8.5	8	8	8	8	7	8	1.2	0.0	1.2	0.1	0.1	0.2
21	22.9	26.0	31.0	32.0	25.1	27.4	33.6	22.0	95	84	67	65	99	82	7.4	0.0	7.4	8	3	6	6	7	6	0.7	1.4	2.1	0.9	0.0	0.9
22	23.7	27.4	30.0	32.2	27.5	28.2	35.0	23.0	96	78	74	65	82	79	0.0	0.0	0.0	8	7	6	5	4	6	2.5	4.5	7.0	1.1	0.2	1.3
23	23.8	28.5	31.0	31.7	29.5	28.9	32.0	22.8	91	74	65	65	67	72	0.0	2.0	2.0	8	8	8	6	5	7	3.0	3.1	6.1	1.2	0.4	1.6
24	23.0	27.5	31.0	31.0	28.5	28.2	31.6	22.5	98	78	64	65	70	75	0.0	0.0	0.0	6	7	7	5	8	7	3.9	3.0	6.9	1.1	0.0	1.1
25	24.0	27.0	29.5	30.0	26.0	27.3	31.0	22.5	91	76	67	70	81	77	0.0	0.0	0.0	5	8	8	7	8	7	4.5	2.5	7.0	1.0	0.4	1.4
26	21.6	28.0	29.6	31.5	28.5	27.8	32.0	21.5	99	70	67	60	74	74	0.0	0.0	0.0	8	5	6	5	6	6	2.7	4.5	7.2		0.7	0.7
27	23.0	25.5	27.5	28.5	28.0	26.5	29.5	23.0	93	84	77	71	74	80	0.0	4.5	4.5	7	8	6	7	4	6	0.0	1.6	1.6	1.2	0.3	1.5
28	22.5	21.7	25.0	30.0	25.5	24.9	31.0	21.7	100	98	92	68	88	89	14.7	0.0	14.7	8	8	6	6	5	7	0.0	4.0	4.0	0.9	0.4	1.3
29	22.5	25.5	27.8	30.0	27.0	26.6	31.0	21.5	95	84	78	75	84	83	0.0	22.1	22.1	8	8	8	8	8	8	0.0	1.4	1.4	1.1	0.6	1.7
30	21.0	21.5	22.0	28.5	23.6	23.3	27.2	21.0	100	100	100	91	91	96	56.7	0.7	57.4	8	8	8	8	8	8	0.0	0.0	0.0	1.1	0.6	1.7
31																													
Average	23.0	26.7	28.1	29.0	26.8	26.7	31.1	21.8	94	81	75	75	80	81				7	7	7	7	7	7	2.0	2.2	4.1	1.2	0.4	1.5
1-10						27.5	31.7	20.9						77								6			5.4			2.1
11-20						25.6	30.2	22.3						86								7			2.7			1.2
21-31						26.9	31.4	22.2						81								7			4.3			1.3
Total																	190.5						58.7	65.5	124.2	33.9	12.0	45.0

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: July

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	22.7	22.8	24.5	24.6	23.6	23.6	25.0	22.0	95	92	87	89	90	91	1.1	0.0	1.1	8	8	8	8	8	8	0.0	0.0	0.0	0.5	0.1	0.6
2	23.5	26.2	29.0	28.3	26.0	26.6	29.5	22.0	91	79	70	75	80	79	0.0		0.0	8	8	8	8	7	8	0.0	0.0	0.0	1.3	0.3	1.6
3	23.5	26.0	27.6	29.6	29.5	27.2	30.5	22.6	93	80	75	70	71	78		0.0	0.0	8	8	8	8	6	8	0.0	0.0	0.0	1.4	0.5	1.9
4	25.4	27.1	30.5	31.3	29.6	28.8	31.6	23.0	85	76	65	67	74	73	0.0	0.0	0.0	7	8	7	8	8	8	0.7	2.6	3.3	1.9	0.7	2.6
5	24.0	27.0	29.1	30.5	28.1	27.7	31.0	23.0	87	76	74	66	80	77	0.0	20.8	20.8	8	8	8	7	7	8	0.4	3.0	3.4	1.6	0.0	1.6
6	22.6	26.5	29.0	29.0	27.3	26.9	30.6	22.5	95	75	67	68	73	76	0.0	0.0	0.0	8	7	6	6	5	6	1.2	2.9	4.1	1.0	0.5	1.5
7	23.5	25.4	28.5	28.0	25.5	26.2	29.2	23.0	89	80	70	77	80	79	0.0	3.3	3.3	8	8	8	8	8	8	0.0	0.7	0.7	0.9	0.2	1.1
8	21.8	22.8	23.6	24.0	24.0	23.2	25.0	21.8	98	93	95	96	89	94	5.3	33.1	38.4	8	8	8	8	8	8	0.0	0.0	0.0	0.1	0.0	0.1
9	19.4	20.8	24.0	22.5	21.0	21.5	24.9	18.5	96	96	83	82	95	90	1.4	1.1	2.5	8	8	8	8	8	8	0.0	0.0	0.0	0.5	0.0	0.5
10	20.6	23.0	23.8	24.7	24.0	23.2	25.9	20.4	99	91	89	81	91	90	0.5	0.0	0.5	8	8	8	8	7	8	0.0	0.3	0.3	0.7	0.1	0.8
11	21.5	23.8	27.0	25.0	23.0	24.1	28.0	20.5	95	89	76	83	91	87	28.0	0.0	28.0	8	8	6	8	8	8	0.0	0.4	0.4	0.6	0.1	0.7
12	21.4	24.5	28.0	28.5	22.5	25.0	31.0	21.0	96	87	77	74	95	86	5.9	1.3	7.2	8	7	5	8	8	7	2.4	2.0	4.4	0.8	0.2	1.0
13	21.5	25.0	26.0	27.6	27.9	25.6	29.0	21.0	98	88	83	82	84	87	0.0	0.0	0.0	8	8	8	8	7	8	0.3	2.0	2.3	0.6	0.2	0.8
14	23.5	24.0	27.1	26.1	25.2	25.2	28.0	23.0	96	91	85	87	87	89	1.1	16.2	17.3	8	8	8	8	8	8	0.0	0.1	0.1	0.5	0.0	0.5
15	21.6	25.2	27.9	29.5	28.0	26.4	30.5	21.0	99	85	78	71	79	82	0.0	0.0	0.0	8	8	7	5	5	7	1.9	4.4	6.3	0.7	0.3	1.0
16	21.5	26.5	28.5	29.3	25.9	26.3	30.5	20.9	98	82	73	72	86	82	0.0	0.0	0.0	2	7	7	6	6	6	2.1	2.2	4.3	0.9	0.3	1.2
17	22.6	27.1	29.6	32.0	30.0	28.3	32.0	22.0	95	76	74	66	73	77	0.0	0.0	0.0	8	6	5	4	6	6	2.5	4.3	6.8	0.9	0.4	1.3
18	22.0	28.0	29.6	29.0	27.6	27.2	31.3	21.0	91	74	69	74	80	78	0.0	0.0	0.0	6	7	7	6	8	7	2.1	4.4	6.5	1.0	0.2	1.2
19	23.0	28.1	31.1	30.0	28.2	28.1	32.6	21.9	95	76	68	70	79	78	0.0	0.0	0.0	4	6	6	7	8	6	4.2	4.6	8.8	1.1	0.0	1.1
20	22.8	28.0	31.5	32.0	30.0	28.9	32.6	22.5	93	77	66	66	68	74	0.0	0.0	0.0	6	6	5	5	4	5	1.7	5.1	6.8	1.2	0.3	1.5
21	24.0	27.5	30.0	30.5	28.1	28.0	31.0	23.2	91	78	69	66	78	76	0.0	11.1	11.1	8	7	8	8	8	8	1.0	1.1	2.1	0.9	0.4	1.3
22	22.5	24.0	25.7	23.0	22.3	23.5	26.5	22.5	100	96	88	98	99	96	2.8	28.3	31.1	8	8	8	8	8	8	0.0	0.0	0.0	11.1	0.0	11.1
23	21.5	24.5	28.5	27.0	22.0	24.7	29.0	21.4	100	93	77	81	100	90	27.0	0.0	27.0	8	6	7	8	8	7	3.0	1.3	4.3	1.0	0.0	1.0
24	23.0	24.5	26.5	26.0	23.7	24.7	27.5	21.5	96	86	80	84	95	88	0.0	0.0	0.0	8	8	8	8	8	8	0.0	1.5	1.5	0.8	0.1	0.9
25	22.8	25.1	22.7	21.9	22.5	23.0	27.0	22.4	97	89	98	99	95	96	8.8	1.2	10.0	8	8	8	8	8	8	0.1	0.0	0.1	0.2	0.0	0.2
26	22.0	24.0	25.5	27.0	22.6	24.2	28.5	21.4	99	88	94	84	100	93	6.7	0.0	6.7	8	8	6	8	8	8	2.0	0.0	2.0	0.8	0.1	0.9
27	23.0	25.0	26.0	28.0	26.0	25.6	29.0	23.0	91	91	81	84	92	88	0.0	0.0	0.0	8	7	6	6	7	7	2.5	4.0	6.5	8.0	0.3	8.3
28	22.0	26.0	30.0	28.0	28.0	26.8	31.0	21.0	91	92	78	92	92	89	0.0	0.0	0.0	7	6	6	6	6	6	4.8	5.8	10.6	1.5	0.2	1.7
29	23.0	26.0	25.0	28.0	24.0	25.2	29.0	22.0	92	84	92	77	91	87	0.0	18.0	18.0	6	6	8	6	6	6	1.0	2.5	3.5	1.2	1.8	3.0
30	23.0	26.0	30.0	33.0	27.0	27.8	33.0	22.0	100	84	78	55	84	80	0.0	0.0	0.0	7	6	7	7	8	7	4.0	4.0	8.0	1.0	0.2	1.2
31	23.0	24.0	28.0	25.6	23.0	24.7	31.0	22.0	94	92	77	83	100	89	0.0	0.0	0.0	8	6	5	7	8	7	6.6	5.0	11.6	0.8	0.0	0.8
Average	22.5	25.3	27.5	27.7	25.7	25.8	29.4	21.8	95	85	79	78	86	85				7	7	7	7	7	7	1.4	2.1	3.5	1.5	0.2	1.7
1-10						25.5	28.3	21.9						83									8			1.2			1.2
11-20						26.5	30.6	21.5						82									7			4.7			1.0
21-31						25.3	29.3	22.0						88									7			4.6			2.8
Total																	223.0							44.5	64.2	108.7	45.5	7.5	53.0

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: August

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	22.0	25.0	28.0	27.0	23.0	25.0	28.0	21.0	99	92	77	84	91	89	18.0	0.0	18.0	7	5	7	7	8	7	2.5	1.0	3.5	1.0	0.5	1.5
2	20.0	24.0	27.0	28.0	28.0	25.4	30.0	20.0	100	67	84	84	84	84	0.0	0.0	0.0	8	5	7	6	8	7	3.0	4.5	7.5	0.5	0.0	0.5
3	21.2	26.3	30.5	31.0	27.1	27.2	32.0	21.0	98	85	71	67	85	81	0.0	14.3	14.3	8	6	4	3	4	5	3.4	5.8	9.2	1.5	0.1	1.6
4	20.1	19.9	23.7	28.0	25.0	23.3	28.1	20.0	100	100	97	77	88	92	11.0	0.0	11.0	8	8	8	7	6	7	0.0	1.9	1.9	0.7	0.2	0.9
5	21.0	24.4	30.0	23.5	23.0	24.4	31.3	20.5	99	86	68	100	87	88	13.3	0.6	13.9	8	8	6	8	8	8	2.8	2.4	5.2	1.2	0.1	1.3
6	21.4	22.0	25.6	22.5	22.0	22.7	27.3	21.0	96	100	87	95	99	95	7.9	0.8	8.7	8	8	7	8	7	8	1.4	0.8	2.2	0.5	0.1	0.6
7	21.7	22.1	26.2	26.5	26.0	24.5	28.0	21.0	99	99	82	84	82	89	5.1	0.0	5.1	8	8	7	7	2	6	0.5	3.6	4.1	1.1	0.2	1.3
8	22.0	26.6	28.6	30.5	27.0	26.9	30.7	21.3	95	79	73	70	83	80	0.0	0.0	0.0	8	7	7	3	5	6	2.3	3.8	6.1	1.8	0.2	2.0
9	22.5	26.4	31.0	32.0	27.5	27.9	32.6	22.0	98	85	70	67	81	80	0.0		0.0	8	6	6	6	8	7	3.1	5.1	8.2	1.8		1.8
10	24.0	27.0	26.0	27.0	25.0	25.8	29.0	23.0	91	84	83	84	92	87	15.0	0.0	15.0	8	7	7	6	7	7	2.9	1.6	4.5	0.5	0.0	0.5
11	21.0	25.5	30.5	30.0	28.0	27.0	32.0	21.0	100	85	70	63	78	79	0.0	0.0	0.0	7	6	5	3	2	5	4.0	5.6	9.6	2.1	0.0	2.1
12	21.0	26.0	30.7	32.0	28.5	27.6	32.0	20.5	98	88	68	64	79	79	0.0	0.0	0.0	8	4	6	5	2	5	3.6	4.9	8.5	1.7	0.2	1.9
13	22.1	27.4	31.1	32.5	28.4	28.3	33.0	21.6	99	78	71	67	78	79	0.0	0.0	0.0	8	6	6	5	6	6	3.8	4.8	8.6	1.9	0.2	2.1
14	23.5	26.0	29.0	28.0	26.8	26.7	30.0	23.0	96	85	75	71	90	83	0.0	0.0	0.0	8	8	8	8	8	8	0.2	0.7	0.9	1.0	0.4	1.4
15	20.6	21.0	23.0	28.2	25.4	23.6	28.5	20.5	100	100	96	79	88	93	60.0	39.0	99.0	8	8	7	7	4	7	0.0	3.9	3.9	0.9	0.0	0.9
16	22.3	26.7	30.5	31.5	25.2	27.2	31.7	21.5	97	90	70	57	85	80	0.0	0.0	0.0	8	5	4	2	2	4	4.2	5.8	10.0	1.4	0.1	1.5
17	19.5	25.0	30.7	31.0	27.0	26.6	31.5	19.0	100	83	64	63	84	79	0.0	0.0	0.0	8	1	1	1	8	4	4.5	4.7	9.2	0.5	3.0	3.5
18	21.0	27.0	30.0	33.0	27.0	27.6	33.0	20.0	94	84	71	60	84	79	0.0	0.0	0.0	8	6	6	5	4	6	3.4	5.5	8.9	3.5	4.0	7.5
19	21.0	27.0	30.0	33.0	29.0	28.0	33.0	21.0	91	84	71	55	77	76	0.0	0.0	0.0	7	6	6	5	2	5	2.5	5.5	8.0	4.0	5.0	9.0
20	24.0	27.0	28.0	28.0	25.0	26.4	32.0	24.0	90	82	85	92	84	87	0.0	0.0	0.0	8	8	6	7	7	7	1.0	2.5	3.5	6.0	1.0	7.0
21	24.0	27.0	27.0	30.0	27.0	27.0	31.0	23.0	91	84	84	71	84	83	0.0	0.0	0.0	8	7	7	7	7	7	0.0	0.5	0.5	6.0	7.5	13.5
22	23.0	27.0	24.0	23.0	23.0	24.0	27.0	22.0	94	91	83	100	93	92	2.0	0.0	2.0	8	8	8	8	5	7	0.0	0.0	0.0	7.0	9.0	16.0
23	22.0	25.0	27.0	29.0	28.0	26.2	29.0	20.0	91	84	84	76	77	82	15.0	0.0	15.0	8	8	5	7	8	7	0.5	2.5	3.0	7.5	0.6	8.1
24	23.0	27.0	27.5	30.0	23.5	26.2	31.5	22.5	97	82	80	76	96	86	0.0	0.0	0.0	8	8	7	8	4	7	3.7	1.7	5.4	1.0	0.1	1.1
25	22.9	25.9	26.6	31.0	27.1	26.7	31.0	22.0	97	87	91	73	85	87	1.6	0.0	1.6	8	8	7	4	3	6	2.3	1.8	4.1	1.0	0.1	1.1
26	22.5	26.5	29.5	31.2	28.1	27.6	32.0	22.0	94	85	76	70	79	81	0.0	0.0	0.0	8	6	7	5	7	7	3.1	3.2	6.3	1.3	0.2	1.5
27	22.5	27.4	29.6	30.8	27.0	27.5	31.6	22.0	98	84	74	74	82	82	0.0	0.0	0.0	8	6	7	5	6	6	3.2	2.2	5.4	1.2	0.2	1.4
28	22.1	24.5	31.0	32.0	28.3	27.6	32.1	22.0	100	92	71	69	83	83	0.0	1.0	1.0	8	7	5	4	1	5	1.3	2.4	3.7	1.7	0.2	1.9
29	22.0	26.5	31.0	29.5	30.0	27.8	32.1	21.5	98	84	75	78	89	85	0.0	0.0	0.0	8	4	5	1	1	4	3.6	4.1	7.7	1.3	0.2	1.5
30	22.9	27.1	24.9	26.0	26.0	25.4	30.2	22.5	97	86	89	88	88	90	0.1	0.0	0.1	7	7	8	7	7	7	1.4	1.2	2.6	0.1		0.1
31	22.8	26.0	27.0	29.0	22.2	25.4	29.5	22.5	97	90	98	77	100	92	27.5	0.0	27.5	8	8	8	8	8	8	0.0	0.0	0.0	0.8	0.1	0.9
Average	22.0	25.6	28.2	29.2	26.3	26.2	30.7	21.4	97	87	79	75	86	85				8	7	6	6	5	6	2.2	3.0	5.2	2.0	1.2	3.1
1-10						25.3	29.7	21.1						87									7			5.2			1.2
11-20						26.9	31.7	21.2						81									6			7.1			3.7
21-31						26.5	30.6	22.0						86									7			3.5			4.3
Total																	232.2							68.2	94.0	162.2	62.5	33.5	96.0

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: September

Day	Temperature (°C)								Relative Humidity (%)						Rainfall (mm)			Cloudiness(oktas)						Sunshine hours			Evaporation(Piche)		
	07	10	13	16	19	Ave.	Max.	Min.	07	10	13	16	19	Ave.	07-19	19-07	Total	07	10	13	16	19	Ave.	AM	PM	Total	07-19	19-07	Total
1	22.0	25.8	30.0	31.0	27.5	27.3	31.4	21.5	100	93	75	75	88	86	0.0	1.3	1.3	8	6	6	4	7	6	3.3	4.6	7.9	1.4	0.0	1.4
2	21.5	25.0	29.7	32.0	27.5	27.1	32.6	21.4	100	89	75	69	81	83	0.0	0.0	0.0	8	7	6	4	7	6	2.9	5.1	8.0	1.5	0.2	1.7
3	21.4	25.2	27.5	28.5	25.5	25.6	29.0	20.7	96	88	71	74	88	83	0.0	0.0	0.0	8	8	6	3	5	6	1.5	4.8	6.3	1.4	0.3	1.7
4	21.0	25.0	30.0	31.2	25.8	26.6	31.5	21.0	98	83	68	67	85	80	0.0	0.0	0.0	8	5	6	3	4	5	3.5	6.1	9.6	1.7	0.1	1.8
5	22.5	27.0	29.5	30.5	26.5	27.2	32.0	21.5	95	74	79	68	86	80	0.0	0.0	0.0	7	7	6	4	5	6	4.0	5.0	9.0	2.3	0.1	2.4
6	23.0	27.0	30.5	32.5	28.0	28.2	32.6	23.0	97	74	69	66	84	78	0.0	0.0	0.0	8	6	6	6	7	7	3.0	3.8	6.8	1.8	0.2	2.0
7	17.0	23.8	24.3	24.6	20.4	22.0	33.0	23.0	61	87	71	60	91	74	0.0	0.0	0.0	8	8	5	7	8	7	3.0	4.0	7.0	0.1	2.0	2.1
8	24.0	22.0	26.0	28.0	22.0	24.4	29.0	24.6	77	82	92	100	84	87	0.0	0.0	0.0	8	8	6	6	6	7	0.0	3.0	3.0	0.0	1.0	1.0
9	22.0		27.0		24.0	24.3	28.0	21.0	81		81		91	84	25.0	0.0	25.0	8		6		8	7	0.0	4.0	4.0	3.0	3.2	6.2
10	22.0	25.0	28.0	29.0	25.0	25.8	28.5	22.0	91	85	70	77	61	77	5.0	0.0	5.0	7	8	6	6	7	7	1.0	3.5	4.5	3.2	3.5	6.7
11	23.0	26.0	28.0	25.0	25.0	25.4	29.0	22.0	91	92	77	92	83	87	0.0	0.0	0.0	7	7	6	7	7	7	1.5	1.5	3.0	5.0	5.5	10.5
12	23.0	26.1	29.0	32.0	26.0	27.2	31.0	22.0	92	82	77	60	81	78	3.0	0.0	3.0	7	6	6	6	6	6	4.5	4.0	8.5	7.5	7.5	15.0
13	24.0	27.0	26.0	24.0	24.0	25.0	28.0	22.0	91	84	92	91	91	90	0.0	0.0	0.0	7	7	7	6	8	7	3.5	2.0	5.5		0.1	0.1
14	21.5	23.7	24.1	28.0	26.5	24.8	29.0	20.5	98	91	91	86	88	91	0.0	14.2	14.2	8	8	8	6	6	7	1.7	2.9	4.6	0.8	0.1	0.9
15	21.0	23.5	26.0	28.5	23.0	23.4	27.1	20.5	100	96	85	96	96	95	27.3	0.4	27.7	8	8	8	8	7	8	2.5	0.0	2.5	0.3	0.1	0.4
16	21.2	23.5	23.1	24.6	25.1	23.5	26.1	20.8	100	95	95	95	91	95	10.2	21.7	31.9	8	7	8	8	8	8	0.2	0.0	0.2	0.1	0.0	0.1
17	21.0	23.3	25.5	20.5	20.7	22.2	28.0	20.0	99	91	83	100	99	94	25.0	0.0	25.0	8	8	8	8	8	8	2.0	0.9	2.9	0.2	0.0	0.2
18	21.1	24.2	26.9	27.1	25.0	24.9	27.6	20.5	99	90	81	80	92	88	0.8	2.4	3.2	8	8	7	5	2	6	2.7	2.3	5.0	0.7		0.7
19			28.5	29.0	23.6	27.0	29.6				74	70	91	78	13.7	0.2	13.9			6	6	5	6	4.3	5.2	9.5	0.6	0.1	0.7
20	20.5	22.2	28.4	26.5	25.0	24.5	29.0	20.0	100	91	74	88	92	89	0.3		0.3	8	8	8	8	8	8	2.5	0.5	3.0	0.8		0.8
21	21.4	23.5	26.5	27.0	25.0	24.7	27.7	21.2	96	93	80	82	92	89	0.0	4.9	4.9	8	8	8	8	8	8	0.0	0.0	0.0	0.5	0.0	0.5
22	21.1	27.0	29.2	26.0	24.5	25.6	30.0	20.5	99	81	74	84	92	86	0.0	0.0	0.0	8	6	7	6	4	6	3.3	2.7	6.0	1.0	0.1	1.1
23	21.0	24.4	29.0	29.5	25.0	25.8	31.0	20.5	99	90	79	74	96	88	6.4	0.0	6.4	8	5	5	8	3	6	2.8	4.6	7.4	0.8	0.1	0.9
24	22.5	26.8	29.5	31.0	26.0	27.2	31.5	21.5	95	82	71	71	92	82	0.0	0.0	0.0	6	5	6	5	1	5	4.9	5.0	9.9	1.1	0.1	1.2
25	21.6	24.5	29.0	29.0	24.0	25.6	30.0	20.8	99	87	74	72	91	85	0.0	3.9	3.9	8	7	5	6	2	6	2.5	4.8	7.3	1.0	0.1	1.1
26	20.5	25.7	29.5	28.8	24.5	25.8	29.6	19.8	97	84	67	72	80	80	0.0	0.0	0.0	8	2	6	2	2	4	3.4	3.9	7.3	1.4	0.1	1.5
27	20.8	26.6	28.5	27.5	25.5	25.8	29.6	20.5	97	76	72	77	89	82	0.0	0.0	0.0	8	6	5	6	7	6	3.0	2.4	5.4		0.1	0.1
28	22.0	26.0	30.0	32.0	26.0	27.2	31.0	20.0	91	84	71	60	81	77	0.0	0.0	0.0	8	5	6	6	5	6	3.0	4.0	7.0	1.5	2.5	4.0
29	21.0	25.0	27.0	30.0	26.0	25.8	30.0	20.0	91	72	84	64	84	79	0.0	0.0	0.0	8	6	7	5	5	6	3.5	4.0	7.5	3.0	4.0	7.0
30	22.0	26.0	24.0	24.0	24.0	24.0	28.0	20.0	82	84	91	91	91	88	15.0	0.0	15.0	8	6	7	7	7	7	0.0	0.0	0.0	4.0	5.0	9.0
31																													
Average	21.6	25.0	27.7	28.0	24.9	25.5	29.7	21.1	94	86	78	78	88	84				8	7	6	6	6	6	2.5	3.2	5.6	1.7	1.3	2.8
1-10						25.9	30.8	22.0						81									6			6.6			2.7
11-20						24.8	28.4	20.9						89									7			4.5			2.9
21-31						25.7	29.8	20.5						84									6			5.8			2.6
Total																	180.7							74.0	94.6	168.6	46.5	36.1	82.6

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: October

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1																												
2	20.0	26.0	26.0	28.0	25.0	25.0	29.0	20.0	100	92	92	84	92	92	0.0	0.0	0.0	8	6	6	6	6	6	3.5	4.5	8.0	5.5	6.0	11.5
3	21.0	25.0	28.0	25.0	24.0	24.6	30.0	20.0	91	92	84	92	100	92	0.0	0.0	0.0	8	6	7	8	7	7	3.0	4.0	7.0	6.0	7.0	13.0
4	21.0	29.0	29.0	30.0	25.0	26.8	30.0	20.0	91	84	77	64	92	82	2.0	0.0	2.0	7	6	6	6	6	6	4.0	4.5	8.5	7.5	0.4	7.9
5	19.5	24.5	28.5	28.5	28.4	25.9	29.2	19.0	100	87	70	70	62	78	0.0	0.0	0.0	8	1	4	5	0	4	4.5	5.0	9.5	1.4	0.1	1.5
6	18.6	22.0	26.2	28.5	22.5	23.2	28.1	18.0	100	91	79	83	95	90	0.0	0.0	0.0	8	6	6	7	1	6	2.6	0.5	3.1	0.9	0.1	1.0
7	18.6	25.6	27.5	27.5	23.1	24.5	28.5	18.0	99	75	73	73	94	83	0.0	0.0	0.0	8	3	3	4	1	4	3.3	4.4	7.7	1.4	0.1	1.5
8	17.5	23.1	27.5	26.5	24.0	23.7	28.6	17.0	99	86	73	78	87	85	0.0	0.0	0.0	8	6	3	7	8	6	2.9	2.6	5.5	1.3	0.2	1.5
9	20.5	23.5	26.9	25.6	22.6	23.8	28.0	19.8	98	87	78	83	90	87	0.0	0.0	0.0	8	8	8	8	4	7	0.7	1.4	2.1	1.2	0.1	1.3
10	18.1	26.4	27.9	27.5	23.0	24.6	28.8	17.5	100	83	74	76	93	85	0.0	0.0	0.0	8	6	8	4	1	5	1.9	2.4	4.3	0.9	0.1	1.0
11	18.0	22.0	18.6	29.5	24.0	22.4	29.5	17.5	100	91	73	72	87	85	0.0	0.0	0.0	8	8	5	3	1	5	2.9	4.9	7.8	1.1		1.1
12	19.6	24.8	27.0	25.8	23.5	24.1	27.5	19.0	99	83	78	83	91	87	0.0	0.0	0.0	8	7	8	8	8	8	0.0	0.0	0.0	0.8	0.1	0.9
13	21.0	23.5	22.2	22.0	19.5	21.6	24.0	20.5	99	88	94	93	96	94	2.9	0.0	2.9	8	8	8	8	8	8	0.0	0.0	0.0	0.4	0.2	0.6
14	15.4	15.5	16.4	15.9	15.5	15.7	16.6	15.0	94	95	91	95	95	94	0.0	8.0	8.0	8	8	8	8	8	8	0.0	0.0	0.0	0.3	0.2	0.5
15	14.5	15.4	16.5	16.0	15.0	15.5	17.6	14.3	100	95	92	95	97	96	0.0	1.9	1.9	8	8	8	8	8	8	0.0	0.0	0.0	0.3	0.2	0.5
16	15.3	18.0	20.5	20.5	18.5	18.6	21.6	14.6	97	87	82	83	92	88	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	0.7	0.1	0.8
17	16.1	17.0	17.5	17.0	15.5	16.6	18.0	16.0	99	93	92	95	95	95	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	0.3	0.1	0.4
18	14.4	16.1	19.5	21.0	18.5	17.9	21.2	14.0	96	94	81	78	95	89	0.0	0.0	0.0	8	8	8	7	8	8	0.0	0.0	0.0	0.5	0.1	0.6
19	15.0	18.0	24.0	26.0	20.0	20.6	26.5	15.0	100	80	67	55	42	69	0.0	0.0	0.0	8	6	6	0	0	4	3.5	3.0	6.5	7.0	8.0	15.0
20	14.0	16.0	26.0	26.0	22.0	20.8	27.0	13.0	80	80	55	60	82	71	0.0	0.0	0.0	8	8	0	0	0	3	2.2	5.5	7.7	8.0	7.5	15.5
21	13.0	16.0	25.0	27.0	23.0	20.8	27.0	12.0	100	80	58	70	67	77	0.0	0.0	0.0	8	0	3	6	3	4	2.6	4.0	6.6	9.5	1.0	10.5
22	16.0	20.0	25.0	25.0	24.0	22.0	26.0	16.0	80	61	83	85	83	82	0.0	0.0	0.0	8	7	7	7	7	7	0.0	1.5	1.5	0.5	0.5	1.0
23	20.0	20.0	24.0	23.0	22.0	21.8	24.0	19.0	81	10	83	82	82	68	5.0	0.0	5.0	8	8	7	7	7	7	0.0	0.3	0.3	0.5	0.5	1.0
24	19.0	25.0	25.0	24.0	23.0	23.2	26.0	18.0	90	69	83	83	74	80	0.0	0.0	0.0	7	6	7	6	7	7	0.0	0.0	0.0	1.7	0.1	1.8
25	19.1	21.2	22.6	22.4	21.2	21.3	26.1	18.6	93	85	84	85	91	88	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	0.8	0.3	1.1
26	18.4	22.5	25.1	24.7	19.0	21.9	25.6	18.0	91	78	75	75	90	82	0.0	0.0	0.0	8	8	6	6	4	6	4.1	3.0	7.1	1.2	0.1	1.3
27	14.5	20.1	26.0	25.6	20.0	21.2	26.5	13.5	100	89	69	73	94	85	0.0	0.0	0.0	8	0	0	3	2	3	3.7	5.2	8.9	1.4	0.1	1.5
28	14.9	20.0	26.1	26.5	20.5	21.6	27.1	14.0	100	78	80	73	95	85	0.0	0.0	0.0	8	0	4	6	0	4	3.2	5.2	8.4	1.4	0.1	1.5
29	14.6	23.2	25.3	23.6	22.0	21.7	25.6	14.0	99	72	73	79	93	83	0.0	0.0	0.0	8	6	8	8	8	8	1.7	0.0	1.7	1.1	0.3	1.4
30	17.1	20.0	20.5	20.0	19.0	19.3	22.0	17.0	100	95	86	87	95	93	3.5	0.5	4.0	8	8	8	8	8	8	0.0	0.0	0.0	0.5	0.1	0.6
31	17.6	19.5	13.9	22.2	19.6	18.6	22.6	17.0	95	68	83	77	90	87	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	0.5	0.1	0.6
Average	17.4	21.3	23.8	24.3	21.4	21.6	25.6	16.8	96	83	79	79	88	85				8	6	6	6	5	6	1.7	2.1	3.7	2.2	1.2	3.3
1-10						24.7	28.9	18.8						86									6			6.2			4.5
11-20						19.4	23.0	15.9						87									7			2.2			3.6
21-31						21.2	25.3	16.1						83									6			3.1			2.0
Total																	23.8							50.3	61.9	112.2	64.6	33.8	98.4

Daily Meteorological Record
Oudomxay

Station: Xai, EL 550 m
Year: 1992
Month: November

Day	Temperature (°C) 07	10	13	16	19	Ave.	Max.	Min.	Relative Humidity (%) 07	10	13	16	19	Ave.	Rainfall (mm) 07-19	19-07	Total	Cloudiness(oktas) 07	10	13	16	19	Ave.	Sunshine hours AM	PM	Total	Evaporation(Piche) 07-19	19-07	Total
1	17.1	21.0	26.1	25.5	19.5	21.8	27.1	16.5	99	78	68	72	47	73	0.0	0.0	0.0	8	5	1	0	0	3	3.5	5.1	8.6	0.0		0.0
2	13.9	16.6	25.8	26.5	18.5	20.3	27.0	13.5	99	94	64	62	87	81	0.0	0.0	0.0	8	6	1	0	0	3	3.0	5.3	8.3	1.4	0.1	1.5
3	12.0	14.9	25.5	26.7	20.0	19.8	27.5	11.5	100	96	70	74	90	86	0.0	0.0	0.0	8	7	5	3	1	5	2.8	4.9	7.7	1.0	0.0	1.0
4	13.5	17.0	25.8	26.0	20.7	20.6	27.0	13.0	98	92	70	71	89	84	0.0	0.0	0.0	8	7	5	4	6	6	2.6	4.0	6.6	1.0	0.1	1.1
5	15.0	18.4	26.0	27.0	21.0	21.5	28.5	14.7	100	91	73	69	93	85	0.0	0.0	0.0	8	6	4	3	0	4	2.5	5.2	7.7	1.0	0.1	1.1
6	15.2	17.4	27.5	28.5	22.1	22.1	29.0	14.8	98	96	70	64	90	84	0.0	0.0	0.0	8	8	4	5	7	6	2.9	4.5	7.4	1.0	0.1	1.1
7	17.4	22.4	28.9	27.6	22.5	23.8	29.6	16.4	99	85	68	77	87	83	0.0	0.0	0.0	8	5	6	7	7	7	3.8	2.6	6.4	0.6	0.1	0.7
8	19.0	22.5	26.5	24.0	21.0	22.6	27.4	17.6	100	89	80	87	95	90	7.6	0.0	7.6	8	7	8	6	8	7	2.4	2.1	4.5			0.0
9	18.0	16.0	16.0	14.0	13.0	15.4	20.0	16.0	80	79	79	89	88	83	0.0	0.0	0.0	8	8	8	8	8	8	0.0	0.0	0.0	1.3	0.0	1.3
10	12.0	16.0	18.0	18.0	16.0	16.0	21.0	10.0	88	79	80	63	80	78	6.0	0.0	6.0	8	5	3	7	7	6	3.8	2.2	6.0	0.0	0.5	0.5
11	8.0	14.0	20.0	22.0	16.0	16.0	22.0	8.5	100	80	64	58	80	76	0.0	0.0	0.0	8	3	2	0	0	3	3.5	5.0	8.5	1.5	2.0	3.5
12	7.0	13.0	20.0	22.6	18.0	16.1	23.0	7.0	85	88	64	60	80	75	0.0	0.0	0.0	8	2	3	3	5	4	0.0	0.0	0.0		0.0	0.0
13	11.0	14.0	22.7	20.5	13.5	16.3	23.1	10.0	100	83	63	73	89	82	0.0	0.0	0.0	8	8	2	4	0	4	1.9	4.8	6.7	1.9	0.1	2.0
14	8.0	10.4	22.5	23.5	15.5	16.0	24.2	7.4	100	99	59	67	87	82	0.0	0.0	0.0	8	8	7	2	0	5	2.5	5.4	7.9	1.9	0.1	2.0
15	8.6	13.0	21.7	22.3	17.2	16.6	22.9	7.9	100	94	72	76	93	87	0.0	0.0	0.0	8	8	7	7	4	7	0.5	0.6	1.1	0.9	0.0	0.9
16	13.6	21.0	23.0	23.0	18.7	19.9	23.7	13.1	99	73	74	74	89	82	0.0	0.0	0.0	8	7	6	4	5	6	0.4	2.6	3.0	1.2	0.1	1.3
17	13.0	17.6	24.9	24.0	18.9	19.7	24.7	12.8	100	93	73	76	91	87	0.0	0.0	0.0	6	7	6	8	2	6	1.7	1.5	3.2	0.8	0.1	0.9
18	14.0	16.0	25.6	27.5	19.6	20.5	27.7	13.1	100	96	83	73	94	89	0.0	0.0	0.0	8	8	1	3	0	4	1.5	4.8	6.3	0.9	0.0	0.9
19	14.6	18.0	27.0	28.5	20.7	21.8	28.7	14.0	100	95	73	70	93	86	0.0	0.0	0.0	8	8	2	2	0	4	2.4	5.1	7.5	1.0	0.1	1.1
20	16.4	19.0	26.5	27.0	21.0	22.0	27.6	14.8	100	95	73	71	91	86	0.0	0.0	0.0	8	8	5	2	1	5	1.1	5.0	6.1	0.9	0.1	1.0
21	16.6	20.6	24.5	22.9	19.5	20.8	25.6	14.4	99	85	76	83	90	87	0.0	0.0	0.0	8	8	6	7	2	6	2.0	3.0	5.0	0.8	0.1	0.9
22	16.1	19.4	25.0	25.0	22.5	21.6	26.0	15.0	100	92	76	80	87	87	0.0	0.0	0.0	8	8	8	8	8	8	2.0	1.0	3.0	0.6		0.6
23	18.0	21.0	29.0	25.7	21.7	23.1	29.0	18.0	100	94	67	82	94	87	0.0	0.0	0.0	8	5	7	7	8	7	2.7	1.9	4.6	1.0	0.1	1.1
24	18.3	21.7	26.5	26.0	22.5	23.0	27.6	17.5	97	91	73	76	95	86	0.0	0.0	0.0	8	5	6	7	5	6	2.4	1.5	3.9	1.0	0.0	1.0
25	17.7	20.0	24.6	24.8	20.0	21.4	25.8	17.0	98	92	75	75	89	86	0.0	0.0	0.0	8	8	7	6	4	7	1.0	1.2	2.2	1.0	0.1	1.1
26	15.5	15.5	18.4	16.0	15.0	16.1	18.6	15.0	95	91	81	87	91	89	0.0	1.7	1.7	8	8	8	8	8	8	0.0	0.0	0.0	0.5	0.4	0.9
27	12.8	15.8	20.0	20.0	18.5	17.4	21.8	12.0	96	81	72	77	93	84	0.0	3.8	3.8	8	6	4	7	8	7	2.5	2.2	4.7	1.0	0.1	1.1
28	11.6	15.5	21.2	21.5	16.0	17.2	22.0	11.5	99	88	69	69	91	83	0.0	0.0	0.0	8	4	4	3	2	4	2.8	1.9	4.7	0.9	0.1	1.0
29	10.5	11.7	21.0	22.0	14.5	15.9	23.0	10.0	100	98	73	59	89	84	0.0	0.0	0.0	8	8	3	3	2	5	0.8	3.9	4.7	0.9	0.1	1.0
30	8.0	14.0	22.0	22.6	16.0	16.5	23.0	8.0	100	78	81	58	61	76	0.0	0.0	0.0	8	5	3	3	3	4	1.5	4.6	6.1	0.8	0.5	1.3
31																													
Average	13.7	17.1	23.7	23.7	18.7	19.4	25.1	13.0	98	89	72	72	87	84				8	7	5	5	4	5	2.0	3.1	5.1	1.0	0.2	1.1
1-10						20.4	26.4	14.4						83									6			6.3			0.8
11-20						18.5	24.8	10.9						83									5			5.0			1.4
21-31						19.3	24.2	13.8						85									6			3.9			1.0
Total																	19.1							60.5	91.9	152.4	26.8	5.1	31.9

ANNEX-MB
SOILS AND LAND USE

ANNEX-MB SOILS AND LAND USE

TABLE OF CONTENTS

1. INTRODUCTION

This ANNEX-MB presents the results of soil and present land use survey carried out in the study area. Up to date, no comprehensive soil and land use survey was carried out in the study area, and specific information is not available. Therefore, soil and land use survey have been carried out for the purpose of Master Plan study on the integrated agricultural development in the study area.

The soil survey has been made at the reconnaissance level with a lower sampling intensity. Because of very difficult accessibility, remote areas and high mountains areas are excluded from the survey. The present land use in the study area has surveyed and studied, using the statistical data, aerial photographs and topographic map on a scale of 1 to 50,000.

2. SOIL CLASSIFICATION

2.1 Geology and Physiography

The geology of the study area belongs to the Indo-china Complex of the Sunda shelf region. The Indo-china complex comprises the region between western Thailand geo-synclinal system and the Indo-china massif. This region consists of a number of depression zones appearing as long narrow troughs. These troughs were formed at the beginning of the Mesozoic, either from tectonic grabens or from vast subsidence basins Marine and continental sediments accumulated in those basin to form the Korat series. The Korat series predominates throughout the region. The Korat series contains sandstone, grey-wacke, arkose and, conglomerates which are generally inter-bedded with various shells, limestone and coal seams.

The study area belongs to the physiographic region named the Northern Highlands. The northern highlands consist of an extensive rugged mountain lands in which the main ranges trend northeast-southwest. The mountains are rough and sharp-crested with steep, highly dissected slopes and narrow V-shaped valleys. There are numerous hill areas and few scattered small inter-mountain basins.

2.2 Soil Classification

2.2.1 Survey Method

Up to date, no comprehensive soil and land suitability survey was carried out in the study area, and there are not available data for assessing the land potential. Very generalized references to the soil of the northern part of Laos is made in "FAO-UNESCO Soil Map of the World". Under this condition, the soil and land suitability survey was carried out for the purpose of the present study.

For the study area, the reconnaissance soil survey was made at a lower sampling intensity. High mountains and areas with difficult accessibility were excluded from the survey. The soil profiles were opened to a depth of 1.50 m. Profiles with depth less than 1.50 m were opened, except for areas with physical constraints, such as gravel and/or perched water table. The shallow pit was made at a depth of 1.10 m. All the differentiated soil horizons occurring in the open soil profiles were observed and described in detail.

2.2.2 Soil Classification

The present soil classification is made according to the Soil Taxonomy of US Department of Agriculture (USDA). Additionally, a correlation is made with the FAO-UNESCO Soil Map of the World Legend. According to the physiographic condition, soils of the study area are broadly classified into 3 units, namely (i) alluvial fans; (ii) lower terraces; and (iii) steeply dissected mountains.

The alluvial fans develope along the main rivers. The soils were formed in the late Pleistocene from mixed local alluvium transported within small basin. In general, alluvial fans have almost flat to gently sloping topography. The soils are deep and present good physical conditions. The textural class varies from sandy loam to clay. The soil peds are hard when dry, but friable when wet. The internal drainage is moderate in the upper horizons up to approximately 60 cm depth, and it is imperfect for the lower soil horizons.

The natural fertility varies from moderate to low, and organic matter content in the surface horizon is medium. Nitrogen content is low, while phosphorous content is medium. Base saturation percentage is high, being calcium the most largely present cation. Most of the alluvial fan lands are being used for lowland rice cultivation.

The lower terraces are mostly located on the foot of hills or mountains, just in slightly higher position than the alluvial fans. The topography is gently undulated with micro relief. The soils present good physical conditions, which are moderately deep, with well to moderate internal drainage. The textural class varies mostly from loam to clay loam. The natural fertility varies from moderate to low. The lower terraces are mostly used under a shifting cultivation pattern more intensive than the high mountain. The shifting cycle is one year planting and three years fallow. Some areas of lower terraces lands are used as rainfed rice field after the construction of ridges for water retention.

The mountain lands present very rough topographic condition, with steep slopes. The soils are shallow to moderately deep with loam to sandy clay texture. The soils are leached, mostly with acidic reaction. The natural fertility is very low. These soils are being used for shifting cultivation.

(1) Parent Materials

The soils of the alluvial fans are formed from mixed, basic and acidic, fine textured alluvium. The type of parent material from which the soils of small

basins derived varies widely from basin to basin. As a result of parent materials variation, the physical and chemical properties of soils also vary significantly. The high mountain soils are derived mostly from acidic or intermediate igneous and metamorphic parent materials.

(2) Lithologic Characteristic of Soil Profiles

Most soils of the alluvial plains and lower terraces have deep to moderately deep profiles. All the open profiles in those two land categories are deeper than 1.0 m. Generally, the soils are formed from fine or very fine materials. There is not coarse material in most of the observed profiles. The soils are relatively uniform throughout the profile depth. Abrupt variations in soil stratification were observed in very few cases. The major horizon variations are the result of in-situ weathering and trans-location processes.

(3) Diagnostic Features for Soil Classification in Higher Categories.

The formation of either argilic (Bt) or cambic (Bw) sub-surface soil horizon is the essential features for classifying most of the soil units in the corresponding order. Ochric epipedon and/or structure development are also diagnostic characteristics presented in soils of alluvial fans and lower terraces areas.

(4) Soil Moisture and Temperature Regimes

Although the average annual rainfall is about 1,300 mm, some 80% falls from May to September. The rest of the months are characterized by a dry season. Because of long dry season, the soil moisture regime is considered as Ustic. Udic moisture regime is found in very few places where perched water table fluctuates within the moisture control section for long period, and in some soil units with clayey texture of high water retention capacity. There are no available data on the soil temperature of the area. Based on the air temperature data, it is inferred that the soil temperature regime is hyperthermic, and might be thermic in some forested high mountains.

(5) Description of Soil Units

Based on the unique soil profile features and properties, the soils of the study area are classified into the Alfisol, Inceptisol and Ultisol orders by USDA Soil Taxonomy. Alfisol are the most common soils in the alluvial plains and lower terraces, while Ultisol are common in the mountain areas. The soil order, sub-order, great group and sub-group classified by Soil Taxonomy, and correlation of the Taxonomic soil sub-groups with FAO's classification system are given below:

Soil Order	Sub-Order	Great Group	Sub-Group	FAO Soil Group
Alfisol	Ustalf	Haplaustalf	Typic Haplaustalf	Calcic Luvisol
			Aquic Haplaustalf	Calcic Luvisol
		Paleustalf	Typic Paleustalf	Dystric Nitosol
			Aquic Paleustalf	Dystric Nitosol
	Udalf	Paleudalf	Aquic Paleudalf	Orthic Luvisol
Ultisol	Ustult	Haplaustul	Typic Haplaustul	Ocric Acrisol
			Lithic Haplustul	Ocric Acrisol
			Plinthic Haplustul	Plinthic Acrisol
Inceptisol	Ochrept	Ustochrept	Typic Ustochrept	Calcic Cambisol
			Aquic Ustochrept	Calcic Cambisol
		Eutrochrept		

3. LAND CLASSIFICATION

3.1 General

The present land suitability classification in the study area is made based on the principles and concepts of FAO's Framework for Land Evaluation. The FAO's categories for suitability classification are summarized as follows:

Order	Class	Sub-class	Unit
Suitable (S)	Highly Suitable: S1	(no sub-class)	
	Moderately Suitable: S2	S2e, S2m	S2e1, S2e2
	Marginally Suitable: S3	S3e, S3m	
Not Suitable (N)	Current Not Suitable: N1	N1e, N1m	
	Permanent Not Suitable: N2		

(1) Order: which indicates the kind of suitability. There are two orders, Suitable (S) and Not Suitable (N). Conditionally Suitable (Sc) is a phase of the Suitable order.

(2) Class: which indicates degree of suitability, such as Highly Suitable (S1), Moderately Suitable (S2), Marginally Suitable (S3), Currently Not Suitable (N1) and Permanently Not Suitable (N2).

(a) S1 is the lands having no significant limitations for sustained use or, only minor limitations that will not reduce productivity or benefits significantly and, will not require increase in farm inputs more than acceptable level.

(b) S2 is the lands having moderately severe limitations for a sustainable use. Limitations may reduce productivity or benefits, and increase input requirements to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior than the expected on class S1 lands.

(c) S3 is the lands having limitations which, in aggregate, are severe for sustained application of a given use. The use of S3 class lands will yield low productivity or benefits, or increase required inputs, making it only marginally justifiable.

(d) N1 is the lands having limitations which may be surmountable in time, but which cannot be corrected with existing knowledge at currently acceptable cost. The limitations are so severe as to preclude successful sustained use of the land in the given manner.

(e) N2 is the lands having limitations very severe as to preclude any possibility of successful sustained use.

(3) Sub-class: which indicates kinds of limitations, such as soil depth, rooting condition, soil moisture, erosion and degradation hazard, etc.

(4) Unit: which indicates the productivity characteristics of the land or the management requirement for any specified use.

3.2 Land Classification

The present land suitability classification is made at a reconnaissance level and, only major kinds of land use are considered. Taking into consideration the present land use and the overall physical and socio-economic conditions of the study area, the major kinds of land suitability considered here are: Suitability for Irrigated agriculture; Suitability for Rainfed agriculture; Suitability for Fruit orchard and Agro-forestry.

3.2.1 Land Classification Criteria

The assumptions underlining suitability classification for the high mountain lands are that their use is mainly for rainfed annual crops, mostly rice. The land is used under a primitive management, based on hand labor only, and no capital for farm management. The level of technical knowledge is low, depending only on tradition. It is assumed that introduction of new farm management techniques will take relatively long time for farmers' acceptance. Due to several constraints, the land area cultivated by one farmer is small, and at a subsistence level. Only one harvest can be made in a year.

The assumptions underlining suitability classification for alluvial fan lands are that their use is for annual crops, mainly rice. Two harvest might be obtained per year in areas where irrigation water could be supplied during the dry season. If land and crop management are improved, a second crop can be grown even under dry farming condition in those lands where the soils have good moisture retention characteristics.

The class determining factors taken into consideration for suitability rating are land slope, soil depth, texture, fertility, rooting condition, and soil moisture characteristic. Because of the lack of reliable data on soil of mountain lands, slope is only the factor taken into consideration for evaluating the suitability of these lands.

Diagnostic Factors	Unit	S1	S2	S3	Sc	N
Land Slop						
Irrigated	%	<3	3 to 6	6 to 9	9 to 12	>12
Rainfed	%	<12	13 to 25	26 to 35	-	>35
Soil Depth	m	>1.5	1 to 1.5	0.5 to 1	-	>0.5
Texture	class	Loamy	-	Clayey	-	Sandy

3.2.2 Land Classification

Taking into consideration the criteria and assumptions described above, the land of the study area is classified as follows:

District	Unit	Total Area	Suitable	% of total	Sc	N1	N2
Xai	ha	225,000	1,665	0.74	935	1,423	220,977
Beng	ha	155,000	847	0.55	556	1,013	152,584
Hun	ha	178,000	1,216	0.68	1,985	2,459	172,340
Total	ha	558,000	3,728	0.67	3,476	4,895	545,901

The lands classified as conditionally suitable for irrigated agriculture (Sc) are those with slope between 9 to 12%. These lands might be used for irrigated agriculture after improving the micro relief irregularities.

The soil fertility is mostly low. The use of chemical fertilizers seems to be not justifiable under the present economic conditions. Special effort should be made in order to enhance the soil fertility level through the application of crops residue, manure, compost, and including legume crops in the rotation.

District	Unit	Total Area	S1	S2	S3	N
Xai	ha	225,000	4,023	14,294	41,175	165,508
Beng	ha	155,000	2,416	9,232	19,530	123,822
Hun	ha	178,000	3,228	24,065	32,883	117,824
Total	ha	558,000	9,667	47,591	93,588	407,154

The lands classified as highly suitable (S1) for rainfed agriculture include all the land with slope up to 12%. Because there is very small or not erosion hazard in using these lands for rainfed agriculture, no special conservation measures are required. Soil fertility and moisture content could be enhanced by means of addition of crops residue, manure, compost, and the inclusion in the rotation of some deep rooting legumes. Construction of ridges, closed furrows, and mulching are recommended for soil moisture conservation.

The S1 land category might be used in a continuous base, without shifting. Two crops might be obtained under rainfed condition in some part of this land class, if proper management for soil moisture conservation, planting time and, fertility improvement are applied.

The lands classified as moderately suitable (S2) for rainfed agriculture are those with slope between 13% to 25%. Because there are some risks of erosion in using intensively this land category, some soil conservation measuress are required. The recommended conservation measures include living hedges, grass strips, counter planting, etc. Similar practices as said for S1 class are required for enhancing soil fertility and soil moisture conservation.

The lands classified as marginally suitable (S3) for rainfed agriculture are those with slope between 26% to 35%. There are high riskss of soil erosion and land degradation in using this land category. This land category is best suited for fruit orchard and agro-forest.

The land with slope above 35% is considered not suitable for any type of agriculture under the present socio-economic conditions prevailing in the study area. This land category should be kept with forest cover.

4. PRESENT LAND USE

4.1 Natural Vegetation

The natural vegetation the study area varies according to the physiographic characteristics of each land unit. The variation in natural vegetation is mainly due to climatic variations with altitude and human preferences for agricultural land type.

At altitude between 800 m and 1,000 m, the original forest is classified as Montane Laurel, which comprises *Fagaceae*, *Ericaceae* and *Conifers* such as *Pinus krempfii*, *Pinus armandii*, *Fokienia hodginsii* and *Keteeleria davidiana*. There are patches of *Dacrydium* and *Podocarpus imbricatus*. At lower altitude the original forest is a mixture of tropical, moist deciduous and evergreen forest, such as *Pterocarpus macrocarpus*, *Afzelia zylocarpa*, *Shorea obtusa*, *Pahudia cochinchnensis*, *Terminalia spp.* and *Tectona grandis*. A mixture of species of secondary forest covers most of the land where the primary forest has been cleared. *Bambusa spp.* and several weed species, such as *Ageratum conyzoides*, *Chromolaena odorata*, and *Imperata cilindrica* occupy the lands that have been slash-and-burned for cultivation.

4.2 Present Land Use

4.2.1 General

A generalized land use map of the entire country was made at a small scale by the Mekong Secretariat. According to the land use map, the study area is included in only one land use category named "open mosaic vegetation (crops, savanna, secondary forest and remains of open evergreen and deciduous forest)". Because the scarcity of reliable land use data and the difficult accessibility to most of the area, the present land use and forest maps in the study area are prepared with a kind assistance of the Forest Inventory Project, based on spot images in 1989 and 1990.

Category	Area	
	(1,000 ha)	(%)
Forest Area	295.5	53.0
Bamboo Area	31.1	5.6
Slash-and-burn Area		
Currently Used (Ray)	54.8	9.8
Fallow (Unstocked)	140.0	25.1
Sub-total	194.9	34.9
Permanent Agriculture Land		
Paddy Field	3.1	0.6
Other Agriculture Land	3.5	0.6
Sub-total	6.4	1.2
Other Area	29.8	5.3
Total	558.0	100.0

Note: For details, refere to Annex-H Environment.

According to the data obtained, approximately 89% of the land within the study area is under some types of natural vegetations, either dense forest, mixed degraded forest, bamboo, bush and tall weed. The land used for agricultural purpose is only about 11% of the study area. Less than 1% of the study area is being used for build-up area, such as homestead and roads. The remaining land is classified into other use like river courses, etc.

It is estimated that the remaining primary forest covers approximately 14% of the total area. Most of the existing primary forest has been kept as reserved areas for the protection of main water courses and for hunting purpose. A large percentage of the land area is covered by mixed secondary degraded forest and bamboo. Bush and tall grass predominate in fallow lands.

4.2.2 Land under Agricultural Use

The land under agricultural use is mainly for subsistence crop production. Rice is the crop extensively planted. Approximately 57,700 ha are planted for rice production. Out of this, about 2,900 ha are lowland rice field scattered in many small alluvial fans and about 54,800 ha are upland rice field. Other crops are corn, sesame, cotton, peanut, mungbean, tobacco, and taro. These crops are mostly inter-cropped with upland rice. Livestock production is an important activity for the families in the study area. Because most of the livestock is grassing freely in the open lands, it is difficult to clarify the land area being used for livestock purpose. Small scattered areas are used for fish ponds.

(Unit: 1,000 ha)

Land Use Category	Xai	Beng	Hun	Total	% of Total
Paddy field*	1.4	0.8	0.7	2.9	4.7
Upland rice field**	22.1	13.6	19.1	54.8	89.6
Other annual crops*	0.7	0.7	2.1	3.5	5.7
Total	24.2	15.1	21.9	61.2	100.0

Source: *; District office
**; Land Use and Forest Maps prepared by the Forest Inventory Project

Two distinct types of agricultural land use are practiced in the study area. These are the lowland rice field and the upland slash-and-burn cultivation. The lowland rice field includes the irrigated land and those under rainfed condition where some types of ridges are made for retaining rainfall.

Almost all the upland cultivation is made under the slash-and-burn method. The land is used in a rotational cycle or shifting. The rotation period varies depending on land availability, natural soil fertility and magnitude of pest and weed problems. The most common shifting patterns are one year cropping and 3 years fallow in low lands, and one year cropping and 6 years fallow in the hilly and mountainous lands. A maximum of 12 years fallow cycle has been reported in some areas where population pressure on land use is still low.

The land use intensity is very low. Only one harvest is made annually in almost the entire study area. Most of the land is left for fallow during the dry season, with the exception of small areas planted of vegetables. The land is used without any input other than farmers labor and buffalo plowing in irrigated areas. There is no land conservation measures being practiced within the study area. The main reasons for the present lowland use intensity are:

(1) adverse weather conditions such as low soil moisture availability during the dry season;
(2) because if only small areas are planted during the dry season, pest attack concentrate on the cropped areas;
(3) if two crops are made annually, the soil fertility and therefore crops yield will decrease due to low farm inputs by farmers; and
(4) no efficient marketing of farm products.

The physiographic characteristic of the land is the main constraint for expanding the agricultue in the study area. Most of the land consist of extensive rugged mountains. The mountains are rough, sharp-crested with steep, highly dissected slopes and narrow V-shaped valleys. Only 1.7% of the study area has land slope grade equal or smaller than 12%. The 12% slope has been considered as the maximum land slope that may be used for intensive agriculture without special protection works for soil conservation. For sustainable agricultural use of a large percentage of the study area, some kinds of conservation practices are needed. Because of slope class limitation, most of the area should be kept under forest protection.

Another important physical constraint to more land use is the climate of the region. Approximately half the year receivess very little rainfall. The long dry season causes soil moisture deficit, and limiting the possibility for growing crops. The availability of surface water for irrigation purpose is also very scarce and a limiting factor for agricultural land use.

ANNEX-MC
RURAL SOCIO-ECONOMY

ANNEX-MC RURAL SOCIO-ECONOMY

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

The objectives of the rural socio-economic survey are (i) to collect information on current condition, such as types of slash-and-burn cultivation, land and livestock holding, and role of women in agriculture by ethnic groups, and (ii) to make some recommendations for agricultural development.

This ANNEX presents the results of rural socio-economic survey in the study area. The survey was carried out through, (i) direct observation, interview to the village leaders and officials concerned by the agro-sociologiest, (ii) benchmark survey using questionnaire for 178 families in 25 villages, and (iii) secondary data review including the data from district offices and other reports on rural survey in Laos.

The efforts of the rural survey have been concentrated on Lan Loum and Lao Theung villages in the lowland areas. Hence the description about Lao Sung depends largely on the secondary informations.

2. CURRENT CONDITION

2.1 General Characteristics of Ethnic Groups

Similar to other provinces of the Northern Region, Oudomxay province is ethnic diverse society which is composed of three main ethnic groups. Although Lao Loum is the majority group of the country as a whole, Lao Theung dominates in the province as well as the study area. General characteristics of each ethnic group can be summarized as follows:

(1) Lao Loum (LL) is Buddish in general, although some sub-groups like Tai Dam and Tai Khao are animists. They are engaged in lowland rice production, and in some cases practice slash-and-burn cultivation in the foothills located near their sedentary villages in flat valley bottom.

(2) Lao Theung (LT) is animist and semi-sedentary. Lao Theung people were the earliest inhabitants in Laos. They occupy the midland in mountainous areas and are engaged in shifting cultivation mainly for rice, with hunting and collecting forest products.

(3) Lao Sung (LS) is animist and migratory. They were the latecomers migrated from southern China and occupy the highland in remote mountain areas left vacants by other ethnic groups. They practice slash-and-burn cultivation for the production of maize, rice and poppy.

2.2 Geographical Movement of Ethnic Groups

The geographical movement of the ethnic groups is a complex phenomenon. Land scarcity, road construction, war event, natural hazard (e.g. flood), disease occurrence, and government policy are important determinant factors of settlement patterns of the ethnic groups, as seen in the following examples:

(1) Lao Loum: some Lao Loum families are often forced to move out from old village due to less arable land per capita, and to establish new one in other place. Most of Lao Loum in Beng area previously lived near the Beng river, but they settled along the National Road No.2 in order to avoid the flood damage and to enjoy better access to markets and public services.

(2) Lao Theung: a number of Lao Theung people settled in vacant lowland of Hun area under the guidance of the government and their own wills, because Lao Loum escaped due to war events. Some Lao Theung families, however, returned to their original villages in hilly areas due to land scarcity because Lao Loum people came back after the war ceased. Lao Theung often changes the location of their villages after many people especially young children die in the short period probably due to diseases caused by poor sanitary condition.

(3) Lao Sung: traditionally, they live in the remote areas and maintain a strong independence. A few villages of Lao Sung now exist near the district center in Xai and Hun areas. They moved down from the mountains and settled in the lowlands under the guidance of the government to enjoy better access to markets and lowland rice field.

2.3 Village Size by Ethnic Groups

There are 172, 106 and 157 villages in Xai, Beng, and Hun districts, respectively. The size of village in terms of number of families by ethnic groups is shown in the following table:

(Unit: number)

	Number of Families					
	<49	50-99	100-149	>150	Unknown	Total
Xai District						
Lao Loum	10	5	5	2		22
Lao Theung	102	6	-	-		108
Lao Sung	23	2	-	-		25
Ethnic Mix	7	6	3	1		17
Sub-total	142	19	8	3		172
Beng District						
Lao Loum	2	15	1	1	-	19
Lao Theung	63	7	-	-	1	71
Lao Sung	14	1	-	-	-	15
Ethnic Mix	1	-	-	-	-	1
Sub-total	80	23	1	1	1	106
Hun District						
Lao Loum	8	9	2	-		19
Lao Theung	91	14	4	1		110
Lao Sung	16	6	-	-		22
Ethnic Mix	1	3	1	1		6
Sub-total	116	32	7	2		157

Data Source: District offices

In most cases, the village is formed by one ethnic group, although there are also villages which are composed of two or three groups as a result of intermarriage and immigration. Lao Theung villages form about two-thirds of total villages in each district. Lao Loum village tends to be larger than Lao Theung one which usually consists of less than 49 families. There are no large Lao Sung villages which exceed 100 families in the study area. Large villages, consisting of more than 100 families, of Lao Theung exceptionally exist in Hun district. More than 80% of Lao Theung and Lao Sung villages is categorized as small village, while one-thirds of Lao Loum villages belongs to this category.

Rice yield of lowland is usually higher than that of upland. Moreover, land use efficiency of shifting cultivation in upland is lower than that of permanent cultivation in lowland. It is obvious that in a certain unit of area, the lowland is able to support larger size of the population than the upland. From the findings of cultivation style of ethnic groups and village size, it is assumed that the villages of Lao Theung and Lao Sung tend to be smaller due to slash-and-burn cultivation, as compared to Lao Loum village which is based on lowland agriculture.

2.4 Population by Ethnic Groups

The proportion of each ethnic group namely Lao Loum, Lao Theung and Lao Sung to the total population in Oudomxay province is estimated at about 29%, 57% and 14%, respectively (Chazee, 1991, La Province de Oudomxay).

The population in the study area forms 35% of total population in the province. The population, number of villages and families in each district of the study area are summarized as follows:

Item	Xai	Beng	Hun	Total
Population (%)	37,446	24,053	39,768	101,267
Lao Loum	35.5	37.9	19.6	30.0
Lao Theung	51.5	54.1	67.2	58.1
Lao Sung	12.9	8.0	13.2	11.9
No. of Villages	172	106	157	435
No. of Families	6,169	3,830	6,556	16,558
Member per Family (person)	6.1	6.3	6.1	6.1

Note: Population, number of villages and families are based on the data collected from each district office.

In the study area, the population of Lao Loum, Lao Theung and Lao Sung is about 30,000 or 30%, 59,000 or 58%, and 13,000 or 12%, respectively. Population of Lao Loum in

Hun district is relatively smaller than that in Xai and Beng districts. On the other hand, population of Lao Theung forms more than two-thirds of total population in Hun district.

2.5 Land Holding Size by Ethnic Groups

The base of economy in the study area is agriculture, namely crop and livestock production. All of ethnic groups cultivate rice as the main crop both in lowland and upland. The cultivated area of lowland and upland rice by three ethnic groups in the study area is shown in the following table:

Ethnic	Population		Lowland Rice Field		Upland Rice Field	
	(No.)	(%)	(ha)	(%)	(ha)	(%)
Lao Loum	30,390	30.0	2,075	79.0	1,792	16.0
Lao Theung	58,836	58.1	509	19.4	9,458	73.7
Lao Sung	12,951	11.9	43	1.6	1,589	12.4
Total	101,267	100.0	2,627	100.0	12,839	100.0

Lao Loum occupies about 2,075 ha (79%) of lowland rice field in the study area. Lao Theung and Lao Sung hold 510 ha (19.4%) and 43 ha (1.6%) of lowland rice field in the study area, respectively. On the other hand, Lao Theung holds about 9,460 ha (74%) of upland rice field in the study area, and Lao Loum and Lao Sung hold 1,800 ha (14%) and 1,600 ha (12%) of upland rice field, respectively.

Since upland farmers are majorities and more than 80% of total rice field is upland rice field, the development and extension of sustainable agricultural method in the upland is indispensable to control slash-and-burn cultivation.

The average land holding size in each district in the study area by ethnic groups is estimated based on the data collected through each district office as shown below:

(Unit: ha)

Item	Xai			Beng			Hun		
	LL	LT	LS	LL	LT	LS	LL	LT	LS
Lowland	0.48	0.18	0.05	0.42	0.02	0.00	0.45	0.02	0.02
Upland	0.24	0.78	0.59	0.49	1.40	1.20	0.60	0.97	0.93
Total	0.72	0.96	0.64	0.91	1.42	1.20	1.05	0.99	0.95

The average holding size of lowland rice field by Lao Loum is about 0.4 to 0.5 ha per farmhousehold, while the area of upland held by one farmhousehold of Lao Loum is about 0.24 to 0.6 ha. The holding size of lowland rice field of Lao Theung and Lao Sung is small as compared to that of Lao Loum, and the holding size of upland rice field is larger than that of

Lao Loum. By these data it is clear that the farmers' economy of Lao Loum largely depends on the lowland rice farming but still needs to cultivate upland rice, while the economic activity of Lao Theung and Lao Sung is mostly dependent on the upland rice farming.

2.6 Types of Slash-and-Burn Cultivation

Slash-and-burn cultivators are often regarded as destructive forest users because of their practices and requirement for slashing and burning forest vegetation. However, traditional shifting cultivation is not necessarily destructive of forest resources when the population is small and arable land is abundant. In other words, slash-and-burn cultivation is sustainable under low levels of population pressure on land. Unfortunately, less arable land per capita mainly due to natural and social population increase has brought about shortening of the fallow period.

Swidden cultivation is the dominant system of agriculture in the study area, in terms of both the area of land and number of people involved. Upland farming systems are commonly divided into three types in accordance with three ethnic groups.

(1) Lao Loum: Lao Loum is engaged in the cultivation of irrigated and rainfed lowland rice. In the case of Lao Loum in Hun area, they have driven to encroach in the low altitude hills due to low productivity of lowland rice and decreasing arable land in the form of sharing their lands to Lao Theung, despite the fact that uplands require more labor inputs and the returns are less than lowlands. It is also worth to note that Lao Loum in Beng area practice slash-and-burn cultivation for many generations. In any case, the land is usually cultivated for one year and left fallow for 3 to 5 years.

(2) Lao Theung: in contrast to the lowland farmers, Lao Theung traditionally practices ecologically sustainable shifting cultivation with a relatively long fallow period of 5 to 15 years, depending on soil conditions and land availability. Farming practices of Lao Theung who settled in the lowlands are not much different from Lao Loum ones. Since it is the government policy to control shifting cultivation, fallow period is shortening in recent years.

(3) Lao Sung: Lao Sung grows a number of subsistence crops such as rice, maize, and vegetables, and in addition poppy which is the most important cash crop. Although less is known about the farming practices in the remote areas, it is believed that the fields are finally abundoned when the grass

(Imperata Cylindrica) has been impossible to control and soil fertility has decreased. Therefore this practice presents a major threat to the environment.

Upland rice is the main crop in the swidden in the study area. There is no great difference in slash-and-burn cultivation practices between the groups of Lao Loum and Lao Theung who settled in lowland areas. Their farming practice is not traditional one. The land is generally cultivated for one to two years with a fallow period of three to five years. Population pressure on land and the present policy of the government for forest area shorten the fallow period gradually so that the fallow period could not be long enough to allow soil fertility to be restored. Soil degradation of upland due to the shortening of fallow periods will be crucial problem in the near future, if no measures were taken to deal with the situation.

The practice of slash-and-burn cultivation is closely related to the availability of rice field in lowland area. The more rice field is available, the less slash-and-burn cultivation is practiced. The area of slash-and-burn cultivation per farm family has an inverse relation to that of rice field, as seen in the following table. In other words, slash-and-burn cultivation becomes less important in the farmers economy as rice field is enough for supply of their staple food.

(Unit: ha)

District/Ethnic Group		Lowland	Upland	Total
Xai	Lao Loum	0.48	0.24	0.72
	Lao Theung	0.18	0.78	0.96
	Lao Sung	0.05	0.59	0.64
Beng	Lao Loum	0.42	0.49	0.91
	Lao Theung	0.02	1.40	1.42
	Lao Sung	0.00	1.20	1.20
Hun	Lao Loum	0.45	0.60	1.05
	Lao Theung	0.02	0.97	0.99
	Lao Sung	0.02	0.93	0.95

Source : District offices in the study area.

2.7 Number of Livestocks by Ethnic Groups

The present livestock raising in the study area is dominated by small-holders who own small number of livestock as part of the subsistence agriculture. As seen in the following table, there are no great differences in number of livestock per family between the three districts.

(Unit: number)

District	No. of Families	Buffalow Total	Buffalow Per Family	Cattle Total	Cattle Per Family	Horse Total	Horse Per Family
Xai	6,169	4,827	0.8	5,120	0.8	764	0.1
Beng	3,830	6,353	1.7	3,295	0.9	224	0.1
Hun	6,556	8,318	1.3	2,243	0.3	1,223	0.2
Total	16,555	19,498	1.2	10,658	0.6	2,211	0.1

District	No. of Families	Pig Total	Pig Per Family	Goat Total	Goat Per Family	Poultry Total	Poultry Per Family
Xai	6,169	9,102	1.5	1,057	0.2	60,742	9.8
Beng	3,830	6,642	1.7	2,539	0.7	37,500	9.8
Hun	6,556	13,339	2.0	1,231	0.2	51,063	7.8
Total	16,555	29,083	1.8	4,827	0.3	149,305	9.0

Data Source: District offices

A farmer keeps on an average one buffalo, one or two pigs, and nine poultry. Horse and goat raising isn't common economic activity among the farmers in the study area. However, the pattern of livestock holding varies among ethnic groups in some degree as seen in the following table.

Item	Xai			Beng			Hun		
	LL	LT	LS	LL	LT	LS	LL	LT	LS
Buffalo	1.2	0.8	0.3	2.3	1.2	1.5	2.0	1.1	0.5
Cattle	0.3	1.3	2.1	1.3	0.6	0.8	0.2	0.2	1.5
Horse	-	-	1.1	-	-	0.4	-	-	1.4
Pig	1.0	2.1	2.4	1.8	1.7	2.9	1.7	1.3	3.4
Goat	-	0.2	0.8	0.7	0.9	0.4	-	0.3	0.4
poultry	3.3	17.4	9.2	12.9	8.0	11.0	10.3	6.8	11.1

Note: Number of animals per family is estimated from the data of each district.
LL = Lao Loum, LT = Lao Theung, LS = Lao Sung

The buffalo is important for Lao Loum, because it provides draft power for the preparation of lowland field. Lao Sung keeps one horse as pack animal, and is able to raise more number of pig than other ethnic groups, because they grow maize as fodder crop.

2.8 Role of Women in Agriculture by Ethnic Groups

Lao women are actively involved in every stage of rice production such as transplanting, weeding, threshing and hulling. In addition, women are engaged in other types of agricultural activities, especially the cultivation of subsidiary crops like vegetable, sweet potatoes, cassava, etc., cotton growing and raising of domestic animals. There are some differences in the role of women in agriculture among the ethnic groups. In general, however, women in each group play active part in farming together with men.

(1) Lao Loum: Lao Loum groups have the flexibility of their social organization and the relative equality which characterizes relationship between men and women, where there is less rigid division of tasks between the sexes in comparision with Lao Theung. Occasionally, women are also engaged in land preparation. However, their main activities in farming are transplanting, harvesting and threshing rice, together with men.

(2) Lao Theung: among Lao Theung, there is a relatively clear division of tasks based on the gender. Slashing and burning the forest, and fencing new fields are the responsibility of men, as well as hunting, whereas women plant and weed upland rice field. Women are also responsible for collecting non-wood products from the forest and firewood from swidden fields.

(3) Lao Sung: Among Lao Sung, both men and women are responsible for collecting forest products, weeding, harvesting and threshing. Women sow the seeds of crops after dibbling done by men. Like other ethnic groups, caring of small size livestock such as pig and poultry is women's responsibility.

Even if women are socially equal to men, they nevertheless have many tasks like looking after their children, cooking, carrying water, cleaning and washing clothes. In Lao Loum society, cash is usually kept by the women who take part in the decision-making of its utilization, while those of Lao Theung and Lao Sung seem to have less power in this domain.

3. CONSIDERATIONS FOR AGRICULTURAL DEVELOPMENT

3.1 Farmers Intention

Regardless of ethnic groups, most of farmers interviewed who practice slash-and-burn cultivation are keen to stop this type of agriculture because of hard work with low yielding. However, scarcity of rice field and lack of irrigation water have hindered the above farmers' intention. Their efforts toward making lowland rice field is minimal because of the heavy over-head labor requirement and scarcity of easily terraceable land. The development of land and irrigation would contribute to fulfill the farmers' intention.

3.2 Recommendations

3.2.1 Rural Soci-economic Issues

The farmers in Oudomxay province are characterized by subsistence-oriented rather than market-oriented. They are not conservative, but cautious of change because they have limited capacity to bear risks. Their behaviour is usually rationale in the given natural and social context, as seen in the following examples:

(1) Almost all rice fields in the study area are not used for dry season rice production, mainly due to the shortage of irrigation water. Rice production in the dry season needs more inputs and is risky in terms of water shortage, cold weather, crop damages by pests and disease, as well as by animals.

(2) Local market is limited in size and the price of agricultural products often fluctuates, so that the farmers are likely to be discouraged by the above conditions to produce for the market.

(3) Population growth in theory leads to the slow replacement of the shifting cultivation by the sedentary cultivation such as irrigated rice production. However, shifting cultivators are reluctant to construct new terraces because of the heavy over-head labor requirement, unreliable rainfall, and the shortage of easily terraceble land.

(4) Easily irrigable lands are in use by means of the construction of traditional weirs and canals. The farmers make great efforts to maintain and repair the irrigation systems.

The farmers try to make the best of natural and social resources for their survival and better living. They tend to be reluctant to take risks when technical and institutional constraints remain unsolved. Therefore, the constraints are expected to solve for the involvement of the farmers in agricultural development project.

3.2.2 Recommendations

Ethnic group is the fundamental unit of village formation composed of homogeneous people. The small village is a basic unit of and a multi-purpose social-organization in the rural area. Although the people have been faced with the complicated problems of their livelihood, single purpose organization such as water users' association is often suitable for the project activities in the early stage, because problem-solving capacity of the people and officials is limited.

The participation of the people as the project beneficiaries in the stages of planning and implementation would be important precondition to achieve the project goals. The people are expected to participate in cooperative activities, water management, and women's activities through village organizations.

The approach to the development of village organizations proceeds through three stages, and it can be summarized as follows:

Stage	Term	Main concern
first	short	project effectiveness
second	medium	project efficiency
third	long	project expansion

The first stage will be resource intensive, and the learning time of organizational capacity building. The major concern is to develop a working model in the setting of the pilot project.

Improving the efficiency of the model for gradual expansion of the pilot project is emphasized in the second stage. Hence, the people and officials are expected to build their problem solving capacity despite reducing the input requirement.

After achieving the effectiveness and efficiency of the project through field level experience, the project model is ready for expansion on the large scale operation in the third stage.

(1) Farmers' Organization

Social differentiation is still minimal and there is relatively equal status of village members in the rural society of Oudomxay province. Consequently, there is a possibility for democratic participation in an organization such as farmers' cooperative.

The problem is however that they averse to doing group action because of the failure of collectivization in mobilizing farmers towards the agricultural development. Moreover, the people and officials confuse collectives and cooperatives. Unlike collectives which concentrate farmers' lands, labor, and capital into large-scale production units, cooperatives are service organizations which are formed by farmers as individual production units.

The main principles of cooperative organization are:

(a) open and voluntary membership;
(b) democratic administration (based on one member-one vote);
(c) equitable contribution; and
(c) fair share of the risks and benefits.

The above principles can be applied to other village organizations.

Action plan will include:

(a) transmission of the concepts and functions of cooperatives to the provincial and district staff;
(b) training the villagers concerning the cooperatives; and
(c) credit and saving scheme such as Rice Bank at the village level.

(2) Water Users' Associations

Water users' associations must be built on the common ground among the members and villages in water allocation, system maintenance, and conflict management. The associations need to make clear rules, roles, and tasks for the people's participation in decision-making, implementation, benefit sharing, and in project evaluation.

The tasks can be carried out through local water users' associations preferably existing ones. They will contribute their knowledge, man-power, and resources to the development efforts.

It should be noted that the solution of land problem in Hun area before the construction of the irrigation system is crucial.

Action plan will include:

(a) strengthening existing water users' associations through training of the leaders at the district training center;
(b) participating in decision-making process of pre-construction and construction of irrigation systems; and
(c) joint workshop of three model areas, exchanging and sharing their experience concerning the management of irrigation system.

(3) Women's Organizations

Rural women form a half of the work force and have the responsibility not only for domestic work but also for some kinds and parts of agricultural activities. Therefore, their participation is an important determinant of successful project.

Women are able to participate in decision-making process of local organization but hardly to speak freely. In such situations, women's organization are needed to improve women's social and economic status, to alleviate worklord, and to improve their health and nutritional conditions. The budget for administration comes from the fees of the members, but the union suffers from the lack of budget for the project activities.

Since women usually work much longer hours than men, development projects need to be examined for the impact on the worklord of women. The encouragement of further production activities of women must be carried out with increasing the efficiency of women's work, for example, the improvement of domestic water system, rice mill and weeding tools. the activities of mother and child health care and nutritional improvement are also important because women are suffering from the high fertility and child mortality.