

**Rainfall Observation**

**Station: Biyonga**

**Data: Daily Rainfall (mm)**

(mm)	Year		Month							
	2001	2002	1	2	3	4	5	6	7	8
Day	12									
1		0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
2		0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
3		21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4		1.5	0.0	0.0	5.0	8.5	0.0	0.0	0.0	0.0
5		0.0	0.0	0.5	27.0	0.0	0.0	0.0	0.0	0.0
6	6.0	0.0	0.0	0.0	0.0	1.5	2.0	0.0	0.0	0.0
7	0.0	3.5	0.0	1.0	0.0	21.5	9.5	0.0	0.0	0.0
8	0.0	60.5	0.0	0.0	1.5	30.0	38.0	0.0	0.0	0.0
9	0.0	40.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0
10	44.0	25.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0
11	29.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
12	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0		0.0	5.5	0.0	0.0	0.0	0.0
15	7.0	12.0	0.0		15.5	0.0	0.0	0.0	0.0	0.0
16	0.0	6.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	1.5	0.0		17.0	0.0	0.0	0.0	0.0	0.0
18	0.0	75.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	4.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	7.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
21	1.5	36.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
22	2.5	12.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
23	4.5	10.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
24	4.0	4.0	0.0		16.0	0.0	0.0	0.0	0.0	0.0
25	2.5	0.0	0.0		16.5	0.0	0.0	0.0	0.0	0.0
26		0.0	0.0		21.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0		7.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0		0.0		0.0		0.0	0.0	0.0

**Rainfall Observation**

**Station: Dulamayo**

**Data: Daily Rainfall (mm)**

(mm)	Year		Month							
	2001	2002	1	2	3	4	5	6	7	8
Day	12									
1		0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0
2		44.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3		0.5	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
4		0.0	0.0	0.0	50.0	3.0	0.0	0.0	0.0	0.0
5		0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
6		0.0	0.0	0.0	16.0	17.0	0.0	0.0	0.0	0.0
7	0.0	42.0	0.0	0.0	0.0	88.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	26.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	14.0	3.0	0.0	0.0	0.0
11	15.0	0.0	0.0	5.0	0.0	2.0	0.5	0.0	0.0	0.0
12	2.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
13	4.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
14	5.0	3.0	0.0	38.0	0.0	1.5	0.0	0.0	0.0	0.0
15	0.0	2.0	0.0	18.0	0.0	0.5	0.0	0.0	0.0	0.0
16	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	11.5	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	2.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	1.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0
21	3.0	44.0	7.0	49.0	16.0	0.0	0.0	0.0	0.0	0.0
22	2.5	2.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
23	0.5	15.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0
25	6.0	0.0	2.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0
26	1.0	0.0	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0
27	13.0	0.0	0.0	21.0	37.5	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0		0.0	4.5	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0		0.0		0.0		0.0	0.0	0.0

**Rainfall Observation**

**Station: Bongomeme**

**Data: Daily Rainfall (mm)**

(mm)	Year		Month							
	2001	2002	1	2	3	4	5	6	7	8
Day	12									
1		9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2		4.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0
3		30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5		3.0	0.0	3.0	1.5	0.0	0.0	0.0	0.0	0.0
6		0.0	0.0	0.0	0.0	3.0	1.0	0.0	0.0	0.0
7		0.0	0.0	0.0	0.0	55.0	79.5	0.0	0.0	0.0
8	0.0	16.5	0.0	0.0	0.0	0.0	65.0	0.0	0.0	0.0
9	11.5	80.5	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0
10	28.0	49.5	0.0	0.0	0.0	0.0	0.5	6.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	9.5	4.0	0.0	0.0
12	8.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
14	0.0	0.0	0.0	27.5	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	7.0	0.0	18.0	0.0	0.0	0.0	4.0	0.0	0.0
16	0.0	13.0	0.0	2.0	0.0	0.0	0.0	7.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
18	0.0	10.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
19	0.0	3.5	0.0	0.5	0.0	0.0	0.0	18.0	0.0	0.0
20	0.0	19.0	0.0	1.0	0.0	0.0	0.0	3.5	0.0	0.0
21	19.5	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
22	25.5	31.0	0.5	7.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	1.0	0.0	3.0	0.0	0.0	0.0	14.5	0.0	0.0
24	0.0	14.0	0.0	7.0	0.0	0.0	0.0	6.0	0.0	0.0
25	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
26	2.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	78.0	2.0	0.0	0.0	0.0	0.0	0.0
29	0.0	1.5	0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Rainfall Observation**

**Station: Alale**

**Data: Daily Rainfall (mm)**

(mm)	Year		Month								
	2001	2002	1	2	3	4	5	6	7	8	9
Day	12										
1		3.0	0.0	0.0	0.0	0.0	0.5		0.0	0.0	0.0
2		0.5	17.5	0.0	0.0	0.0	6.5		0.0	0.0	0.0
3		10.0	7.0	0.0	0.0	9.0	0.0		0.0	0.0	0.0
4		0.0	0.0	0.0	0.0	1.0	2.0		0.0	15.0	0.0
5		3.5	1.5	0.0	5.0	2.5			0.0	1.0	0.0
6	14.0	3.0	0.0	0.5	0.0	6.5			0.0	0.5	0.0
7	0.0	7.5	0.0	0.0	10.0	26.0			0.0	0.0	0.0
8	0.0	16.0	0.0	0.0	0.0	30.0			0.0	0.0	0.0
9	0.0	13.0	0.0	0.0	0.0	25.5			0.0	0.0	0.0
10	7.0	39.5	0.0	0.0	0.0	14.0			0.0	0.0	0.0
11	0.0	0.0	0.0	5.0	0.0	108.5			0.0	0.0	0.0
12	0.5	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
14	0.0	3.0	0.0	9.0	0.0	0.0			0.0	0.0	0.0
15	29.0	9.0	0.0	17.5	0.0	0.0			0.0	0.0	0.0
16	4.5	28.5	0.0	4.0	2.5	0.0			0.0	0.0	0.0
17	0.0	18.5	0.0	45.5	0.0	0.0			0.0	0.0	0.0
18	0.0	33.5	0.0	0.0	0.0	0.0			0.0	0.0	0.0
19	0.0	16.0	1.0	6.5	0.0	0.0			0.0	0.0	0.0
20	0.0	10.5	29.0	0.0	0.0	0.0			0.0	0.0	0.0
21	1.0	27.5	6.0	2.5	21.5	0.0			0.0	0.0	0.0
22	12.0	33.5	2.5	0.5	0.0	3.0			0.0	0.0	0.0
23	82.0	1.0	0.0	3.0	0.0	0.0			0.0	0.0	0.0
24	0.0	4.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	1.5	0.0			0.0	0.0	0.0
26	12.0	0.0	0.0	3.5	1.0	0.0			0.0	0.0	0.0
27	0.5	0.0	5.0	13.5	0.0	0.0			0.0	0.0	0.0
28	0.0	0.0	24.0	2.0	12.0	0.0			0.0	0.0	0.0
29	0.0	0.0	0.0	1.0	5.0	0.0			0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	10.0	0.0			0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0

**Water Level Observation**

**Station: AWLR- ISIMU**

**Data: Average water level (cm: AWLR)**

(cm)	Year		Month								
	2001	2002	1	2	3	4	5	6	7	8	9
Day	12										
1		81	117	54	53	53	60	60	55	60	
2		108	104	55	59	52	60	59	55		60
3		121	100	57	59	54	60	59	55		
4		137	103	77	58	59	60	59	58		
5		96	93	57	69	57	60	58	60		
6		88	91	58	71	71	64	58	60		
7		82	86	56	126	73	59	59	60		
8	75	133	79	53	113	94	59	59	60		
9	68	236	77	52	71	113	59	59	60		
10	74	201	77	54	60	92	63	59	60		
11	81	130	78	67	55	102	70	59	60		
12	117	109	77	60	53	81	59	59	60		
13	98	132	76	58	52	77	72	59	60		
14	78	109	74	55	52	76	103	59	60		
15	126	111	72	55	56	63	122	58	60		
16	112	113	71	68	60	59	90	57	60		
17	139	95	70	58	60	73	73	58	60		
18	91	110	69	52	60	64	61	57	60		
19	76	194	63	51	60	56	73	57	60		
20	70	172	70	55	60	51	69	56	60		
21	66	117	68	66	60	50	59	55	60		
22	73	212	70	118	60	50	58	55	60		
23	69	167	67	87	59	49	60	55	60		
24	71	180	65	84	59	49	60	55	60		
25	68	185	63	71	62	50	60	55	60		
26	72	206	62	57	57	50	60	55	60		
27	117	137	60	53	64	49	59	55	60		
28	127	124	59	74	109	54	58	55	60		
29	103	111		69	78	60	58	55	60		
30	82	118		54	58	60	59	55	60		
31	74	131		53		60		55	60		

**Water Level Observation**

**Station: AWLR- ISIMU (SG)**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month
	2001		
Day	10	11	12
1		114	127
2		124	135
3		142	139
4		110	149
5		127	106
6		75	122
7		77	92
8		54	75
9		55	67
10		67	63
11		153	75
12		162	127
13		97	98
14		71	79
15		72	125
16		56	110
17		182	141
18		129	93
19		138	77
20		93	70
21		193	66
22		146	70
23	#N/A	100	69
24	38	56	70
25	37	113	#N/A
26	37	89	#N/A
27	35	82	#N/A
28	35	83	#N/A
29	37	89	#N/A
30	55	131	#N/A
31	182		#N/A

**Water Level Observation**

**Station: AWLR- BIYONGA**

**Data: Average water level (cm: AWLR)**

(cm)	Year		Month								
	2001		2002								
Day	12	1	2	3	4	5	6	7	8	9	
1	0	11	26	7	9	9		13	10	8	
2	2	10	25	8	11	8		13	11		
3	3	26	20	7	9	8		13	10		
4		28	26	7	9	12		15	10		
5		17	21	7	26	11		12	9		
6		12	27	8	18	9		11	10		
7		11	19	8	38	41		10	10		
8		31	19	7	31	197		10	9		
9		52	18	6	18	205		10	9		
10	57	49	17	5	13	82		10	9		
11	54	39	12	5	10	55		9	10		
12	78	22	11	5	9	40		10	10		
13	52	18	14	7	8			11	10		
14	37	13	19	12	7			10	8		
15	32	67	13	21	11			10	7		
16	25	71	13	18	10			12	7		
17	16	50	5	10	5		24	12	7		
18	13	102	6	8	5		23	11	8		
19	18	109	7	12	6		22	11	6		
20	11	75	6	11	5		21	12	8		
21	20	49	6	13	3		21	12	8		
22	19	83	8	37	5		17	10	7		
23	22	72	7	21	4		21	10	8		
24	13	71	5	48	5		21	11	8		
25	8	63	6	44	9		16	11	8		
26	11	46	6	22	27		17	10	8		
27	14	44	8	12	21		15	10	8		
28	22	39	8	61	38		113	10	7		
29	21	32		57	34		12	11	7		
30	11	31		22	18		13	11	7		
31	12	25		11				11	7		

**Water Level Observation**

**Station: AWLR- BIYONGA (SG)**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month						
	2001		2002						
Day	11	12	1	2	3	4	5	6	7
1	88	20	10	25	60	#N/A	60	15	13
2	48	13	10	26	63	#N/A	67	15	13
3	38	29	10	20	43	#N/A	87	14	13
4	26	22	24	26	47	80	77	14	13
5	17	24	14	22	43	66	64	14	11
6	13	39	12	26	67	17	77	15	11
7	11	35	10	19	60	34	33	15	10
8	60	26	12	18	60	30	152	14	10
9	57	20	43	18	57	15	205	18	10
10	43	28	51	14	40	33	85	20	10
11	68	25	36	11	50	34	56	41	10
12	26	57	22	38	50	30	40	25	10
13	23	46	17	42	#N/A	80	24	95	10
14	18	33	12	39	#N/A	60	21	62	10
15	17	28	12	40	#N/A	10	21	52	10
16	15	21	54	53	#N/A	60	20	35	12
17	14	15	49	47	#N/A	50	21	24	10
18	12	12	83	47	#N/A	53	20	23	11
19	10	16	73	33	#N/A	50	20	22	10
20	15	47	74	33	#N/A	47	20	21	12
21	42	50	46	57	#N/A	30	19	21	12
22	32	35	73	60	#N/A	53	19	17	10
23	19	17	67	53	#N/A	40	19	36	10
24	14	16	75	70	#N/A	50	19	18	12
25	20	40	58	47	#N/A	53	18	16	11
26	21	11	45	47	#N/A	22	17	15	10
27	20	15	44	40	#N/A	19	17	14	10
28	60	23	38	63	#N/A	71	16	13	10
29	35	21	31		#N/A	34	16	12	
30	25	#N/A	28		#N/A	18	15	13	
31		#N/A	24		#N/A		15		

**Water Level Observation**

**Station: AWLR- ALALE**

**Data: Average water level (cm: AWLR)**

(cm)	Year		Month							
	2001		2002							
Day	12	1	2	3	4	5	6	7	8	
1		101	102	108	112	136	90	98	86	
2		97	105	115	123	164	90	96	86	
3		87	117	110	122	162	89	94	87	
4		91	113	108	121	144	90	92	88	
5		86	112	102	144	142	90	97	89	
6		85	122	112	167	137	89	94	90	
7	89	80	116	108	168	163	89	91	88	
8	86	79	108	101	164	182	89	87	88	
9	73	108	102	100	136	179	89	86	87	
10	72	133	100	100	131	165	86	87	85	
11	69	112	99	122	124	298	93	88	86	
12	67	100	98	115	120	355	97	88	83	
13	66	97	97	122	119	148	94	89	82	
14	65	90	96	134	118	132	98	89	82	
15	73	103	96	127	118	122	112	85	82	
16	92	134	94	135	124	117	114	85	81	
17	66	130	97	138	111	112	98	86	81	
18	68	125	96	127	113	108	95	88	80	
19	71	140	98	121	109	106	107	89	80	
20	76	132	99	136	105	101	117	87	80	
21	115	128	94	135	108	100	119	88	80	
22	134	136	97	129	113	101	113	86	81	
23	127	165	105	122	107	107	108	84	82	
24	108	127	111	126	106	100	118	83	80	
25	103	129	96	130	118	100	105	83	80	
26	115	128	107	126	123	99	102	85	80	
27	114	120	110	117	133	96	100	85	79	
28	117	112	113	114	161	93	99	84	78	
29	108	110		134	157	91	99	84	79	
30	98	112		127	155	90	103	84	78	
31	91	107		118		90		85	78	

**Water Level Observation**

**Station: AWLR- ALALE (SG)**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month							
	2001			2002						
Day	10	11	12	1	2	3	4	5	6	7
1		96	138	98	102	109	111	133	90	98
2		94	122	99	101	116	123	164	90	96
3		94	103	90	119	110	121	160	89	94
4		96	129	90	112	106	117	142	90	92
5		88	103	82	110	101	126	143	89	97
6		80	92	85	123	113	158	139	89	94
7		79	89	80	116	109	147	155	90	91
8		79	86	79	109	101	168	185	89	87
9		75	69	93	101	100	137	178	89	87
10		81	70	132	100	100	131	164	86	87
11		87	69	113	99	124	122	293	91	88
12		87	65	100	98	112	120	355	98	88
13		74	65	103	98	121	119	148	94	89
14		75	65	90	94	135	118	132	98	88
15		76	68	103	95	126	111	122	112	85
16		75	87	132	93	135	124	117	113	85
17		87	65	136	96	146	111	111	98	86
18		119	60	118	94	120	112	108	95	86
19		101	68	138	98	120	110	106	107	89
20		85	73	130	99	135	105	101	125	88
21		80	98	131	94	133	108	100	125	87
22		80	127	122	96	126	113	101	111	85
23	#N/A	75	127	155	107	123	106	108	108	84
24	#N/A	72	108	131	112	125	107	100	120	83
25	89	72	98	130	94	129	120	100	105	83
26	79	70	117	129	108	126	123	100	102	85
27	82	72	113	120	111	116	131	97	100	85
28	78	110	118	112	111	112	151	93	99	85
29	84	127	106	110		134	151	91	99	84
30	87	102	98	111		126	154	90	104	85
31	93		90	105		119		90		86

**Water Level Observation**

**Station: AWLR- LOMAYA**

**Data: Average water level (cm: AWLR)**

(cm)	Year		Month							
	2001		2002							
Day	12	1	2	3	4	5	6	7	8	
1		52	57	43	41	49	40	50	46	
2		49	56	42	46	55	40	49	46	
3		52	67	43	45	57	41	47	47	
4		58	64	42	41	76	41	45	50	
5		53	66	42	46	69	40	45	49	
6		61	63	43	45	68	48	45	49	
7	54	55	56	40	68	102	53	47	50	
8	50	61	53	39	59	104	61	45	47	
9	50	78	52	38	49	103	64	44	44	
10	57	74	52	39	46	81	58	42	44	
11	54	63	51	40	44	81	81	41	46	
12	57	58	49	39	45	79	87	41	45	
13	55	53	48	44	43	64	103	44	44	
14	49	53	48	41	43	61	106	51	43	
15	49	71	49	42	44	54	92	50	43	
16	51	89	48	50	41	53	74	49	42	
17	49	76	47	45	40	51	73	49	42	
18	48	82	46	46	42	50	72	48	41	
19	48	109	44	45	42	49	68	49	40	
20	44	91	47	46	40	48	64	49	40	
21	52	76	46	46	45	48	61	49	40	
22	58	87	47	55	47	52	59	49	40	
23	52	84	46	51	41	48	62	49	39	
24	53	83	46	53	42	46	56	48	39	
25	49	80	44	52	45	45	53	47	39	
26	58	73	47	49	52	45	51	47	40	
27	64	68	46	45	50	44	50	48	40	
28	83	63	43	72	66	42	49	48	39	
29	70	60		58	63	40	49	48	39	
30	60	61		51	53	39	52	49	39	
31	57	56		49		39		48	39	

**Water Level Observation**

**Station: AWLR- LOMAYA (SG)**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month						
	2001		2002						
Day	11	12	1	2	3	4	5	6	7
1	83	55	52	57	43	41	48	45	50
2	65	53	49	56	42	48	55	45	49
3	61	54	48	68	43	45	54	41	47
4	60	55	56	65	42	41	82	41	45
5	56	54	52	69	42	54	65	40	45
6	54	55	60	63	43	45	71	51	45
7	52	56	55	56	40	72	88	55	47
8	51	50	59	53	37	59	92	63	45
9	51	49	85	52	38	49	98	67	44
10	65	53	71	52	38	46	82	58	42
11	69	54	63	51	40	44	84	89	41
12	62	55	57	49	41	45	79	99	41
13	58	54	53	48	48	43	66	114	44
14	56	48	52	47	41	43	61	113	51
15	55	49	77	47	42	46	54	91	50
16	62	50	95	47	50	41	53	74	49
17	62	49	76	47	45	40	51	73	49
18	63	47	87	46	45	41	49	73	47
19	62	48	113	44	44	42	49	68	47
20	61	44	91	47	46	40	48	63	49
21	64	45	78	45	46	51	47	61	49
22	63	57	85	47	55	47	55	59	49
23	52	49	82	46	51	41	48	64	49
24	50	53	82	46	44	41	46	56	48
25	48	49	80	44	51	45	45	53	47
26	47	58	72	49	50	53	45	51	47
27	46	57	68	46	45	47	40	50	48
28	54	87	63	43	72	74	42	49	48
29	63	69	60		56	64	40	49	47
30	60	60	61		51	53	38	52	49
31		57	56		49		37		48

**Water Level Observation**

**Station: Pulubala**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month							
	2001		2002							
Day	11	12	1	2	3	4	5	6	7	8
1	#N/A	#N/A	87	35	30	21	20	25	10	0
2	#N/A	#N/A	85	34	30	21	20	19	10	0
3	#N/A	#N/A	95	33	30	21	19	18	11	0
4	#N/A	#N/A	43	33	30	21	29	26	9	0
5	#N/A	#N/A	37	33	34	21	48	15	9	0
6	#N/A	#N/A	36	33	32	21	108	30	12	0
7	#N/A	#N/A	34	35	30	64	63	34	14	0
8	#N/A	#N/A	73	33	30	24	83	36	11	0
9	#N/A	#N/A	95	33	30	20	55	29	10	0
10	#N/A	#N/A	49	33	39	20	83	24	10	0
11	#N/A	30	45	33	39	19	93	27	9	0
12	#N/A	24	40	32	39	18	83	26	8	0
13	#N/A	21	38	30	42	18	78	22	7	0
14	#N/A	21	75	30	33	44	62	21	6	0
15	#N/A	21	43	30	34	27	62	19	6	0
16	#N/A	24	30	30	34	27	61	35	5	0
17	#N/A	24	29	30	31	26	37	16	5	0
18	#N/A	22	45	30	31	26	23	20	5	0
19	#N/A	21	36	29	31	24	24	19	5	0
20	#N/A	21	33	29	39	23	21	22	4	0
21	#N/A	21	33	29	38	23	23	19	6	0
22	#N/A	29	32	29	35	23	19	21	6	0
23	#N/A	30	33	30	35	23	17	15	5	0
24	#N/A	21	42	31	51	25	14	12	3	0
25	#N/A	25	37	31	32	24	9	13	1	0
26	#N/A	27	36	31	28	42	11	11	0	0
27	#N/A	31	35	30	28	27	19	14	0	0
28	#N/A	33	34	30	49	66	12	17	0	0
29	#N/A	31	34		27	26	10	16	0	0
30	#N/A	31	36		24	20	9	10	0	0
31		32	35		21		10		0	0

**Water Level Observation**

**Station: Molawahu**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month								
	2001		2002								
Day	10	11	12	1	2	3	4	5	6	7	8
1		17	10	89	41	24	34	30	30	26	0
2		20	8	95	38	25	32	31	29	24	0
3		17	8	77	38	35	31	28	19	23	0
4		19	7	46	36	34	30	63	26	26	0
5		41	7	17	37	26	31	50	24	24	0
6		19	5	7	42	32	30	90	22	24	0
7		17	0	22	37	30	77	113	23	22	0
8		16	0	21	35	35	47	120	21	21	0
9		11	0	56	37	31	39	67	20	21	0
10		11	26	54	38	22	34	91	22	20	0
11		57	9	35	37	22	37	80	20	20	0
12		33	2	32	36	21	31	68	20	20	0
13		21	0	42	33	28	29	50	25	19	0
14		28	0	29	28	33	28	42	23	19	0
15		21	0	29	29	28	39	39	21	19	0
16		22	0	135	28	33	36	30	20	19	0
17		23	24	93	27	34	33	26	18	18	0
18		21	2	49	29	26	29	24	17	16	0
19		31	27	39	30	26	34	20	15	16	0
20		22	23	37	30	24	33	20	16	15	0
21		30	25	54	30	46	28	28	18	15	0
22		27	25	48	34	43	25	26	20	15	0
23	#N/A	20	20	45	28	38	32	24	19	15	0
24	3	18	20	61	36	59	30	25	18	15	0
25	5	26	28	51	33	47	33	25	21	13	0
26	2	22	22	43	32	31	36	22	22	13	0
27	2	26	26	42	32	36	34	20	20	3	0
28	1	27	26	40	24	83	91	20	24	0	0
29	1	22	19	39		54	44	20	23	0	0
30	1	98	18	41		42	38	19	30	0	0
31	1		21	39		36		18		0	0

**Water Level Observation**

**Station: Pohu**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month								
	2001			2002							
Day	10	11	12	1	2	3	4	5	6	7	8
1		20	#N/A	96	60	52	57	59	50	56	33
2		23	#N/A	94	59	51	54	69	50	56	33
3		28	#N/A	99	59	51	57	65	49	55	32
4		44	#N/A	89	57	50	67	63	49	54	32
5		39	#N/A	70	56	50	54	61	49	53	31
6		36	#N/A	77	55	56	67	56	48	53	30
7		20	#N/A	69	67	59	68	88	48	52	30
8		19	#N/A	76	62	56	60	102	47	52	30
9		18	32	131	60	54	57	94	47	52	29
10		17	141	135	58	53	55	88	46	51	29
11		30	129	94	57	51	52	99	46	50	28
12		27	74	90	57	50	51	104	45	49	28
13		25	67	84	55	55	50	79	45	48	27
14		24	60	79	55	60	50	67	44	47	27
15		21	58	101	54	64	49	58	44	46	27
16		16	69	114	54	63	48	56	43	46	26
17		15	62	95	53	62	48	55	43	45	26
18		14	56	109	53	56	47	54	42	44	26
19		29	49	113	53	62	47	54	53	44	25
20		25	46	101	52	65	46	53	63	43	25
21		24	43	94	52	69	46	52	62	43	24
22		26	51	160	52	70	48	51	61	42	24
23	#N/A	23	59	102	51	65	49	53	60	41	23
24	23	18	57	119	66	68	48	49	60	40	23
25	17	20	68	98	61	65	48	52	124	40	23
26	20	21	65	76	59	63	58	54	66	38	21
27	21	24	55	69	54	59	69	53	62	38	21
28	27	50	50	65	52	98	62	52	59	37	20
29	24	36	43	62		80	61	52	58	36	20
30	20	87	42	61		66	60	51	57	35	20
31	19		41	60		59		50		34	19

**Water Level Observation**

**Station: Tomulabutao (Telaga Br.)**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month							
	2001			2002						
Day	11	12	1	2	3	4	5	6	7	8
1	#N/A	66	55	78	40	40	94	39	53	9
2	#N/A	57	51	74	35	35	74	30	49	5
3	#N/A	60	63	85	33	45	78	20	45	20
4	#N/A	57	67	89	32	32	77	19	33	17
5	#N/A	63	60	79	30	37	85	16	31	20
6	#N/A	68	71	93	29	55	112	20	28	19
7	#N/A	66	71	81	31	41	121	40	38	22
8	#N/A	58	66	72	29	91	138	47	41	19
9	#N/A	54	77	70	26	60	209	59	39	18
10	#N/A	58	64	64	25	53	201	52	37	18
11	#N/A	59	54	63	24	34	181	57	36	18
12	#N/A	59	63	57	26	28	178	98	37	16
13	#N/A	66	#N/A	55	43	29	164	93	34	6
14	#N/A	55	102	53	49	24	124	109	30	3
15	#N/A	48	90	49	46	38	86	117	29	1
16	#N/A	52	196	58	40	28	70	96	24	10
17	#N/A	49	195	55	36	26	57	80	11	11
18	#N/A	45	102	53	32	33	53	81	8	13
19	#N/A	46	173	49	29	35	46	80	7	12
20	#N/A	41	#N/A	49	26	18	44	84	22	13
21	#N/A	50	125	56	30	21	39	83	30	12
22	65	59	#N/A	59	37	37	35	76	29	16
23	65	50	148	55	52	23	52	56	29	16
24	58	57	136	52	38	22	42	74	29	17
25	56	55	130	49	44	24	38	68	28	12
26	58	63	115	48	37	38	38	63	27	4
27	70	60	#N/A	56	26	35	39	63	26	0
28	85	130	88	51	30	32	28	57	24	0
29	78	91	84		72	75	32	55	28	0
30	77	77	88		48	51	26	55	26	0
31		58	83	#N/A			28		9	5



**Water Level Observation**

**Station: Outlet Topadu**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month								
	2001			2002							
Day	10	11	12	1	2	3	4	5	6	7	8
1		149	126	103	179	72	65	63	68	87	16
2		135	124	102	175	72	63	88	69	84	9
3		133	132	99	184	68	75	96	95	83	25
4		103	137	130	171	65	64	107	75	79	19
5		106	134	115	170	66	63	92	117	75	25
6		87	127	130	176	59	67	88	91	73	25
7		79	125	121	161	58	77	103	120	71	29
8		74	118	117	152	56	121	240	180	66	18
9		70	114	132	154	50	88	117	210	61	15
10		69	115	171	139	49	80	157	197	58	13
11		135	130	171	137	46	71	170	174	58	14
12		112	137	158	127	47	67	175	202	56	12
13		95	134	152	123	50	66	132	179	49	0
14		88	130	146	119	59	67	209	161	48	0
15		86	120	140	116	67	63	207	154	44	0
16		79	117	172	113	69	61	143	146	42	0
17		79	116	197	110	65	55	227	145	41	0
18		110	113	177	108	51	53	208	137	30	4
19		98	111	203	100	55	58	128	129	25	6
20		97	105	238	99	50	49	165	124	27	3
21		96	103	215	101	55	50	162	118	39	5
22		120	115	205	96	54	57	78	116	38	6
23	#N/A	99	110	242	98	68	47	102	124	35	5
24	#N/A	95	113	229	92	57	47	120	116	37	3
25	#N/A	93	109	235	88	62	58	128	97	33	1
26	#N/A	91	113	220	85	56	57	112	99	33	0
27	#N/A	91	115	208	87	51	51	117	98	30	0
28	26	129	157	199	82	51	52	87	89	29	0
29	28	115	153	194		100	99	97	89	29	0
30	48	116	135	196		84	78	128	84	29	0
31	79	112	112	186		67		128		18	0

**Water Level Observation**

**Station: Dembe 1**

**Data: Average water level (cm: staff reading)**

(cm)	Year		Month								
	2001			2002							
Day	10	11	12	1	2	3	4	5	6	7	8
1		50	135	132	217	125	103	99	112	100	41
2		56	136	135	215	121	104	99	108	98	42
3		62	140	143	209	117	102	97	107	97	44
4		65	148	146	208	113	102	95	106	96	42
5		67	148	148	204	109	100	94	102	94	41
6		67	151	146	200	105	104	93	99	94	41
7		68	153	144	193	101	107	95	99	94	39
8		67	152	141	186	97	116	112	97	93	37
9		65	156	145	181	100	115	134	95	91	35
10		66	158	170	179	101	115	151	93	90	34
11		82	159	183	177	100	112	159	93	89	34
12		91	161	185	173	100	110	174	93	88	34
13		92	160	184	169	98	107	173	94	86	33
14		92	158	185	165	98	104	172	100	83	33
15		92	158	184	163	99	102	171	101	80	32
16		92	158	184	159	100	102	168	106	76	32
17		94	155	186	155	100	101	166	106	74	31
18		99	152	185	151	100	99	164	105	71	30
19		100	152	191	148	100	98	160	105	69	30
20		104	150	194	143	99	95	156	105	66	29
21		104	148	204	140	99	92	152	105	64	29
22		110	145	210	137	98	90	147	105	62	29
23	#N/A	115	142	225	135	98	87	143	105	60	28
24	#N/A	114	140	230	132	101	85	140	105	58	28
25	48	111	138	231	127	102	85	136	104	56	26
26	46	110	136	230	126	101	83	134	104	54	24
27	45	110	136	230	126	100	82	131	104	52	22
28	43	120	136	228	126	99	86	128	104	50	20
29	42	122	136	226		103	93	125	103	48	18
30	40	128	136	223		106	97	120	103	46	14
31	39		135	220		104		116		42	9

Tide Level Record

Staff reading (m)

Day	データ	Year Month										
		2001		2002								
		11	12	1	2	3	4	5	6	7	8	9
1	Daily Max.	1.380	1.560	1.520	1.800	1.800	1.360	1.600	1.700	1.200	0.980	0.780
	Daily Min.	0.180	0.180	0.110	0.180	0.220	0.100	0.270	0.100	0.060	0.300	0.500
	Daily Ave.	0.745	0.751	0.769	0.775	0.887	0.755	0.817	0.728	0.607	0.680	0.613
2	Daily Max.	1.460	1.440	1.420	1.800	1.400	1.700	1.600	1.800	1.120	0.920	
	Daily Min.	0.010	0.010	0.040	0.190	0.350	0.260	0.100	0.300	0.100	0.260	
	Daily Ave.	0.727	0.662	0.656	0.760	0.930	0.731	0.760	0.763	0.567	0.635	
3	Daily Max.	1.480	1.420	1.360	1.800	1.800	1.600	1.800	0.960	0.950	0.900	
	Daily Min.	0.120	0.120	0.060	0.220	0.360	0.140	0.180	0.100	0.260	0.120	
	Daily Ave.	0.706	0.711	0.679	0.826	0.852	0.800	0.800	0.651	0.626	0.620	
4	Daily Max.	1.560	1.460	1.220	1.200	1.800	1.200	1.900	0.900	0.880	0.980	
	Daily Min.	0.140	0.010	0.110	0.240	0.230	0.140	0.400	0.100	0.400	0.360	
	Daily Ave.	0.714	0.685	0.631	0.755	0.825	0.638	0.815	0.702	0.580	0.705	
5	Daily Max.	1.460	1.420	1.320	1.200	1.800	1.900	1.800	0.980	0.700	0.960	
	Daily Min.	0.080	0.160	0.020	0.360	0.200	0.260	0.380	0.400	0.300	0.120	
	Daily Ave.	0.715	0.707	0.618	0.750	0.775	0.741	0.681	0.701	0.544	0.557	
6	Daily Max.	1.360	1.320	1.120	0.980	1.600	0.960	0.940	0.880	0.700	0.980	
	Daily Min.	0.080	0.110	0.410	0.540	0.120	0.400	0.400	0.420	0.380	0.160	
	Daily Ave.	0.680	0.704	0.772	0.755	0.750	0.685	0.670	0.605	0.554	0.558	
7	Daily Max.	1.320	1.120	0.980	1.600	1.300	0.980	0.960	0.980	0.900	0.960	
	Daily Min.	0.240	0.340	0.610	0.400	0.380	0.480	0.560	0.440	0.100	0.100	
	Daily Ave.	0.669	0.698	0.803	0.850	0.719	0.695	0.756	0.693	0.528	0.560	
8	Daily Max.	1.160	0.980	0.980	1.600	1.600	1.200	0.900	0.800	0.920	0.980	
	Daily Min.	0.360	0.310	0.510	0.340	0.260	0.300	0.120	0.330	0.160	0.100	
	Daily Ave.	0.713	0.685	0.715	0.767	0.748	0.623	0.636	0.561	0.487	0.503	
9	Daily Max.	1.060	0.940	1.060	1.400	1.900	1.800	1.140	1.300	1.140	1.320	
	Daily Min.	0.380	0.560	0.480	0.380	0.200	0.300	0.160	0.270	0.220	0.200	
	Daily Ave.	0.673	0.720	0.769	0.681	0.693	0.681	0.661	0.782	0.607	0.668	
10	Daily Max.	0.940	0.810	1.360	1.300	1.600	1.200	1.200	1.100	0.930	1.400	
	Daily Min.	0.480	0.410	0.320	0.260	0.320	0.240	0.240	0.200	0.120	0.200	
	Daily Ave.	0.700	0.654	0.778	0.650	0.757	0.713	0.733	0.645	0.468	0.689	
11	Daily Max.	0.920	1.360	1.320	1.800	1.500	1.800	0.940	1.600	1.100	1.380	
	Daily Min.	0.510	0.410	0.210	0.260	0.400	0.250	0.280	0.160	0.200	0.220	
	Daily Ave.	0.715	0.810	0.692	0.727	0.737	0.675	0.763	0.630	0.498	0.779	
12	Daily Max.	1.020	1.280	1.440	1.500	1.700	1.600	1.600	1.340	1.300	1.400	
	Daily Min.	0.460	0.360	0.260	0.200	0.360	0.220	0.180	0.080	0.180	0.120	
	Daily Ave.	0.735	0.760	0.722	0.723	0.721	0.779	0.730	0.623	0.679	0.687	
13	Daily Max.	1.240	1.310	1.460	1.600	1.800	1.600	1.800	1.430	1.360	1.460	
	Daily Min.	0.360	0.410	0.180	0.180	0.270	0.200	0.100	0.060	0.100	0.370	
	Daily Ave.	0.768	0.772	0.733	0.685	0.840	0.797	0.720	0.668	0.651	0.810	
14	Daily Max.	1.310	1.480	1.440	1.600	1.800	1.600	1.800	1.400	1.300	1.400	
	Daily Min.	0.260	0.110	0.180	0.240	0.250	0.180	0.150	0.060	0.100	0.180	
	Daily Ave.	0.726	0.686	0.674	0.738	0.708	0.734	0.708	0.673	0.643	0.833	
15	Daily Max.	1.340	1.420	1.440	1.280	1.900	1.360	1.400	1.380	1.200	1.080	
	Daily Min.	0.110	0.000	0.180	0.140	0.340	0.100	0.100	0.100	0.100	0.140	
	Daily Ave.	0.710	0.766	0.725	0.697	0.865	0.648	0.691	0.715	0.673	0.705	
16	Daily Max.	1.520	1.420	1.460	1.360	1.800	1.500	1.800	1.300	1.120	1.160	
	Daily Min.	0.080	0.310	0.180	0.280	0.250	0.100	0.200	0.080	0.360	0.200	
	Daily Ave.	0.715	0.786	0.734	0.774	0.927	0.695	0.741	0.699	0.647	0.728	
17	Daily Max.	1.540	1.340	1.340	1.700	1.800	1.700	1.800	1.200	0.940	1.260	
	Daily Min.	0.020	0.010	0.220	0.180	0.300	0.100	0.120	0.060	0.080	0.260	
	Daily Ave.	0.720	0.614	0.749	0.794	0.862	0.733	0.719	0.702	0.603	0.701	
18	Daily Max.	1.580	1.420	1.280	1.700	1.800	1.300	1.800	1.600	0.950	0.980	
	Daily Min.	0.060	0.010	0.320	0.270	0.240	0.140	0.100	0.100	0.220	0.120	
	Daily Ave.	0.705	0.632	0.753	0.796	0.815	0.722	0.788	0.650	0.642	0.608	
19	Daily Max.	1.540	1.280	1.240	0.980	1.600	1.900	1.160	1.060	0.900	0.980	
	Daily Min.	0.010	0.060	0.310	0.260	0.240	0.240	0.200	0.180	0.180	0.280	
	Daily Ave.	0.670	0.670	0.749	0.667	0.774	0.708	0.675	0.565	0.602	0.624	
20	Daily Max.	1.420	1.110	1.120	0.980	1.900	1.500	1.200	1.260	1.800	0.960	
	Daily Min.	0.110	0.110	0.320	0.300	0.270	0.290	0.140	0.020	0.120	0.260	
	Daily Ave.	0.675	0.644	0.750	0.670	0.823	0.811	0.724	0.683	0.699	0.583	
21	Daily Max.	1.180	1.120	0.980	1.300	1.800	0.940	1.340	0.820	1.280	1.300	
	Daily Min.	0.240	0.320	0.310	0.310	0.380	0.260	0.500	0.040	0.200	0.230	
	Daily Ave.	0.651	0.648	0.721	0.702	0.845	0.650	0.821	0.560	0.684	0.639	
22	Daily Max.	1.190	1.040	0.900	1.340	1.400	1.100	0.960	1.400	1.240	1.280	
	Daily Min.	0.280	0.410	0.330	0.200	0.300	0.480	0.520	0.370	0.370	0.260	
	Daily Ave.	0.679	0.722	0.705	0.567	0.710	0.715	0.720	0.690	0.650	0.645	
23	Daily Max.	1.080	0.980	0.960	1.700	1.100	1.200	0.900	1.100	1.380	1.340	
	Daily Min.	0.310	0.510	0.460	0.210	0.380	0.260	0.200	0.060	0.420	0.180	
	Daily Ave.	0.679	0.733	0.763	0.743	0.737	0.658	0.647	0.623	0.788	0.668	
24	Daily Max.	0.980	0.840	1.120	1.700	1.180	0.980	0.840	1.100	1.260	1.180	
	Daily Min.	0.310	0.520	0.500	0.300	0.400	0.370	0.240	0.280	0.250	0.180	
	Daily Ave.	0.659	0.700	0.770	0.744	0.750	0.655	0.536	0.616	0.650	0.570	
25	Daily Max.	0.860	0.880	1.160	1.800	1.800	1.600	1.260	1.600	1.340	1.320	
	Daily Min.	0.540	0.410	0.460	0.390	0.480	0.400	0.180	0.120	0.220	0.140	
	Daily Ave.	0.695	0.661	0.721	0.807	0.797	0.729	0.678	0.710	0.683	0.655	
26	Daily Max.	0.860	0.960	1.230	1.600	1.700	1.400	1.420	1.260	1.500	1.400	
	Daily Min.	0.460	0.310	0.380	0.300	0.380	0.220	0.230	0.080	0.180	0.100	
	Daily Ave.	0.702	0.697	0.767	0.786	0.784	0.742	0.688	0.613	0.722	0.648	
27	Daily Max.	0.880	1.120	1.460	1.400	1.300	1.180	1.100	1.380	1.320	1.360	
	Daily Min.	0.420	0.320	0.300	0.200	0.300	0.180	0.100	0.100	0.200	0.120	
	Daily Ave.	0.645	0.679	0.708	0.695	0.679	0.614	0.530	0.701	0.705	0.689	
28	Daily Max.	1.220	1.320	1.430	1.400	1.800	1.800	1.800	1.400	1.400	1.180	
	Daily Min.	0.360	0.210	0.220	0.180	0.250	0.160	0.100	0.180	0.120	0.180	
	Daily Ave.	0.734	0.684	0.690	0.748	0.795	0.761	0.685	0.644	0.728	0.635	
29	Daily Max.	1.420	1.260	1.520		1.600	1.480	1.400	1.280	1.200	0.940	
	Daily Min.	0.240	0.260	0.150		0.160	0.100	0.200	0.100	0.180	0.200	
	Daily Ave.	0.732	0.698	0.689		0.770	0.709	0.680	0.672	0.675	0.577	
30	Daily Max.	1.580	1.420	1.480		1.800	1.400	1.400	1.170	1.360	0.900	
	Daily Min.	0.260	0.180	0.110		0.220	0.200	0.100	0.200	0.200	0.180	
	Daily Ave.	0.745	0.706	0.674		0.733	0.857	0.678	0.635	0.713	0.548	
31	Daily Max.		1.520	1.430		1.800		1.280		1.340	0.980	
	Daily Min.		0.110	0.190		0.120		0.100		0.200	0.100	
	Daily Ave.		0.788	0.721		0.765		0.673		0.762	0.533	