

YEAR 1

INFLOW TO RESERVOIR *** GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
REINFALL (MM)	6.1	0.0	3.1	3.1	314.9	605.3	745.9	675.6	394.3	232.3	39.7	6.1
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	3.622	17.250	30.344	32.090	18.731	11.035	1.888	0.290

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	3.622	17.250	30.344	32.090	18.731	11.035	1.888	0.290

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	3.622	17.250	30.344	32.090	18.731	11.035	1.888	0.290

YEAR 2

INFLOW TO RESERVOIR FOR 1971

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	0.5	0.0	3.2	3.2	334.1	642.3	791.5	716.9	418.5	260.5	42.2	6.5
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	4.192	18.305	33.594	34.052	19.876	11.710	2.003	0.308

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	4.192	18.305	33.594	34.052	19.876	11.710	2.003	0.308

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	4.192	18.305	33.594	34.052	19.876	11.710	2.003	0.308

YEAR J

INFLOW TO RESERVOIR FOR GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.9	0.0	3.0	3.0	307.8	724.4	690.1	383.0	225.6	38.6	5.9	
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	16.754	28.815	31.166	18.192	10.718	1.833	0.282	

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	3.354	16.754	28.815	31.166	18.192	10.718	1.833	0.282

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	3.354	16.754	28.815	31.166	18.192	10.718	1.833	0.282

Year 4

INFLOW TO RESERVOIR *** CYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.0	0.0	2.5	2.5	250.2	492.6	607.0	549.8	320.4	189.1	32.3	5.0
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	1.087	14.039	20.451	26.116	15.244	8.981	1.536	0.236

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	1.087	14.039	20.451	26.116	15.244	8.981	1.536	0.236

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	1.087	14.039	20.451	26.116	15.244	8.981	1.536	0.236

YEAR 5

INFLOW TO RESERVOIR *mm* GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.5	0.0	3.2	3.2	333.0	640.1	788.8	714.5	417.0	245.7	42.0	6.5
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	4.158	18.243	33.403	33.937	19.809	11.670	1.996	0.307

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	4.158	18.243	33.403	33.937	19.809	11.670	1.996	0.307

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	4.158	18.243	33.403	33.937	19.809	11.670	1.996	0.307

YEAR 6

INFLOW TO RESERVOIR *** GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.8	0.0	2.9	2.9	301.3	279.1	713.7	646.4	377.3	222.3	30.0	5.8
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	3.220	16.505	28.050	30.704	17.923	10.559	1.806	0.278

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	3.220	16.505	28.050	30.704	17.923	10.559	1.806	0.278

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	3.220	16.505	28.050	30.704	17.923	10.559	1.806	0.278

YEAR 7

INFLU TO RESERVOIR acc. BYAI

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
REINFILL (MCM)	5.8	0.0	2.9	2.9	579.1	713.7	646.4	377.3	222.3	38.0	5.8	
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	16.505	20.050	30.704	17.923	10.559	1.806	0.278	

TOTAL INFLU TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLU (MCM)	0.3	0.0	0.0	0.0	3.220	16.505	20.050	30.704	17.923	10.559	1.806	0.278

TOTAL INFLU TO DIVERGION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLU (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLU FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLU (MCM)	0.0	0.0	0.0	0.0	3.220	16.505	20.050	30.704	17.923	10.559	1.806	0.278

YEAR 2

INFLW TO RESERVOIR *** GYAL

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.4	0.0	2.7	2.7	200.0	538.3	603.4	600.0	350.7	206.6	35.3	5.4
DISCHARGE (MG)	0.0	0.0	0.0	0.0	2.571	15.342	24.466	28.540	16.659	9.815	1.679	0.258

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MG)	0.0	0.0	0.0	0.0	2.571	15.342	24.466	28.540	16.659	9.815	1.679	0.258

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MG)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MG)	0.0	0.0	0.0	0.0	2.571	15.342	24.466	28.540	16.659	9.815	1.679	0.258

YEAR

TOTAL INFL. TO RESERVOIR FOR GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.1	0.0	2.6	2.6	264.7	500.9	627.2	568.0	331.6	195.3	33.4	5.1
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	2.138	14.504	21.885	26.982	15.750	9.279	1.587	0.244

TOTAL INFLOW TO RESERVOIR.

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	2.138	14.504	21.885	26.982	15.750	9.279	1.587	0.244

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	2.138	14.504	21.885	26.982	15.750	9.279	1.587	0.244

YEAR 10

INFLOW TO RESERVOIR *** GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.1	0.0	2.6	2.6	262.8	507.1	622.5	563.0	329.1	193.9	13.2	5.1
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	2.079	14.396	21.550	26.780	15.632	9.209	1.575	0.242

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	2.079	14.396	21.550	26.780	15.632	9.209	1.575	0.242

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	2.079	14.396	21.550	26.780	15.632	9.209	1.575	0.242

YEAR 11

INFLOW TO RESERVOIR *** GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
REINFALL (MM)	5.9	0.0	2.9	2.9	302.7	591.9	717.0	649.4	379.1	223.3	38.2	5.9
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	3.261	16.583	28.289	30.849	18.007	10.609	1.815	0.279

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	3.261	16.583	28.289	30.849	18.007	10.609	1.815	0.279

TOTAL INFLOW TO DIVISION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	3.261	16.583	28.289	30.849	18.007	10.609	1.815	0.279

YEAR 12

INFLOW TO RESERVOIR FOR YEAR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.4	0.0	2.7	2.7	270.9	532.3	656.0	594.2	346.8	204.3	35.0	5.4
DISCHARGE (MG)	0.0	0.0	0.0	0.0	2.499	15.171	23.940	28.223	16.474	9.706	1.660	0.255

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MG)	0.0	0.0	0.0	0.0	2.499	15.171	23.940	28.223	16.474	9.706	1.660	0.255

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MG)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MG)	0.0	0.0	0.0	0.0	2.499	15.171	23.940	28.223	16.474	9.706	1.660	0.255

YEAR 13

INFLOW TO RESERVOIR via GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (M4)	5.4	0.0	2.7	2.7	200.3	538.9	604.0	601.5	351.1	206.8	35.4	5.4
DISCHARGE (MCH)	0.0	0.0	0.0	0.0	2.599	15.357	24.513	28.569	16.676	9.825	1.681	0.259

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCH)	0.0	0.0	0.0	0.0	2.599	15.357	24.513	28.569	16.676	9.825	1.681	0.259

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCH)	0.0	0.0	0.0	0.0	2.599	15.357	24.513	28.569	16.676	9.825	1.681	0.259

YEAR 14

INFLOW TO RESERVOIR 95% GYAT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	5.4	0.0	2.7	2.7	270.6	531.8	655.3	593.6	346.5	204.1	34.9	5.4
DISCHARGE (MCM)	0.0	0.0	0.0	0.0	2.490	15.156	23.892	28.194	16.457	9.696	1.658	0.255

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	2.490	15.156	23.892	28.194	16.457	9.696	1.658	0.255

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MCM)	0.0	0.0	0.0	0.0	2.490	15.156	23.892	28.194	16.457	9.696	1.658	0.255

YEAR 15

TOTAL INFLOW TO RESERVOIR *** GY41

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL (MM)	6.9	0.0	2.5	2.5	487.7	631.0	544.3	317.7	107.2	32.0	4.9	
DISCHARGE (MM)	0.0	0.0	0.0	0.0	13.899	20.021	25.856	15.093	0.892	1.521	0.234	

TOTAL INFLOW TO RESERVOIR

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MM)	0.0	0.0	0.0	0.0	1.411	13.899	20.021	25.856	15.093	0.892	1.521	0.234

TOTAL INFLOW TO DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MLM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TOTAL INFLOW FROM CATCHMENT AREA

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
INFLOW (MLM)	0.0	0.0	0.0	0.0	1.411	13.899	20.021	25.856	15.093	0.892	1.521	0.234

YEAR 1

FIELD WATER REQUIREMENT OF PADDY (MET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	109.7	141.1	143.8	141.0	96.0	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	188.8	142.1	139.4	95.4	14.7	0.0	0.0
P-W-R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.062	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (MET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	175.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.3	187.7	124.5	18.4	0.0	0.0
P-W-R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	5.8	0.0	2.4	1.9	0.0	0.0	0.0	0.0	0.0	0.0	28.4	5.0
P-W-R. (MM)	122.6	154.0	139.9	26.0	0.0	0.0	0.0	0.0	0.0	0.0	58.3	154.6
W-R-Q. (MCM)	4.378	5.500	4.995	0.927	0.0	0.0	0.0	0.0	0.0	0.0	2.083	5.523

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	75.0	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	4.3	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	3.9
P-W-R. (MM)	69.5	67.2	33.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	42.3
W-R-Q. (MCM)	7.958	7.700	3.792	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.124	4.850

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	11.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	5.3	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	3.9
P-W-R. (MM)	77.2	61.0	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	42.3
W-R-Q. (MCM)	8.844	4.994	2.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.124	4.850

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.100	20.194	10.820	0.927	0.498	0.873	0.732	0.793	0.527	0.078	2.330	15.222

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.100	20.194	10.820	0.927	0.498	0.873	0.732	0.793	0.527	0.078	2.330	15.222

YEAR

FIELD WATER REQUIREMENT OF PADDY (wet) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	141.1	143.0	141.0	98.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	188.8	142.1	139.4	95.4	14.7	0.0	0.0
P-R-R (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
P-R-Q (MM)	0.0	0.0	0.0	0.0	0.0	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (wet) P+BC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	13.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
P-R-R (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
P-R-Q (MM)	0.0	0.0	0.0	0.0	0.0	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	159.6
E RAINFALL (MM)	5.1	0.0	2.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0	29.7	5.3
P-R-R (MM)	122.3	154.0	139.7	25.8	0.0	0.0	0.0	0.0	0.0	0.0	57.0	154.3
P-R-Q (MM)	5.367	5.309	4.777	0.923	0.0	0.0	0.0	0.0	0.0	0.0	2.035	5.512

FIELD WATER REQUIREMENT OF GROUNDWATER P+BC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.9	67.2	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	6.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.4	4.1
P-R-R (MM)	69.2	67.2	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	42.1
P-R-Q (MM)	7.923	7.700	3.777	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.102	4.823

FIELD WATER REQUIREMENT OF BEANS (DRY) P+BC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	81.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	4.6	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.4	4.1
P-R-R (MM)	76.9	61.0	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	42.1
P-R-Q (MM)	0.813	6.774	2.022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.102	4.823

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MM)	21.108	23.144	10.771	0.923	0.498	0.873	0.732	0.793	0.527	0.070	2.240	15.157

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MLH)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MC4)	21.108	20.194	10.791	0.923	0.498	0.873	0.732	0.793	0.527	0.078	2.240	15.157

YEAR 3

FIELD WATER REQUIREMENT OF PADDY (MET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	96.6	14.9	0.0	0.0
RAINFALL (MM)	0.0	0.0	0.0	0.0	194.4	180.8	142.1	134.4	45.4	14.7	0.0	0.0
P.M.R. (MM)	0.0	0.0	0.0	0.0	1.3	2.5	1.7	1.7	1.2	0.2	0.0	0.0
P.R.Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (MET) P+G

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.3	187.7	124.5	18.4	0.0	0.0
P.M.R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
P.R.Q. (MCM)	0.0	0.0	0.0	0.0	0.053	0.091	0.071	0.073	0.046	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
RAINFALL (MM)	5.7	0.0	2.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0	27.7	4.9
P.M.R. (MM)	122.7	154.0	139.9	26.0	0.0	0.0	0.0	0.0	0.0	0.0	59.0	154.8
P.R.Q. (MCM)	4.303	5.500	4.979	0.929	0.0	0.0	0.0	0.0	0.0	0.0	2.106	5.528

FIELD WATER REQUIREMENT OF GROUNDNUTS P+G

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
RAINFALL (MM)	4.2	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	3.8
P.M.R. (MM)	69.6	67.2	33.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	42.4
P.R.Q. (MCM)	7.973	7.700	3.799	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.134	4.862

FIELD WATER REQUIREMENT OF BEANS (DRY) P+G

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	31.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
RAINFALL (MM)	4.2	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	3.8
P.M.R. (MM)	77.3	61.0	17.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	42.4
P.R.Q. (MCM)	8.358	6.994	2.037	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.134	4.862

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.213	20.194	10.034	0.929	0.498	0.873	0.732	0.793	0.527	0.078	2.373	15.252

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.213	20.194	10.034	0.929	0.498	0.873	0.732	0.793	0.527	0.078	2.373	15.252

YEAR 4
FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	95.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	182.8	142.1	139.4	95.4	14.7	0.0	0.0
F-W-R (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.2	1.2	0.2	0.0	0.0
W-R-Q (MC%)	0.0	0.0	0.0	0.0	0.042	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY(WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	13.4	0.0	0.0
F-W-R (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W-R-Q (MC%)	0.0	0.0	0.0	0.0	0.053	0.091	0.071	0.073	0.046	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	155.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	3.9	0.0	2.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	23.5	4.1
F-W-R (MM)	1.1.5	154.6	140.3	26.3	0.0	0.0	0.0	0.0	0.0	0.0	63.2	135.6
W-R-Q (MC%)	4.410	5.500	5.017	0.140	0.0	0.0	0.0	0.0	0.0	0.0	2.258	5.456

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.5	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	3.1
F-W-R (MM)	70.3	67.2	53.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	43.0
W-R-Q (MC%)	8.051	7.700	3.833	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.267	4.932

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	21.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.5	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	3.1
F-W-R (MM)	7.0.0	61.0	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	43.0
W-R-Q (MC%)	8.916	8.994	2.056	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.207	4.932

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
REMAND (MC%)	21.307	20.194	10.933	0.940	0.108	0.873	0.732	0.793	0.527	0.078	3.272	15.420

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (ACM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (ACM)	21.307	20.194	10.933	0.940	0.408	0.873	0.732	0.793	0.527	0.078	3.272	15.420

YEAR 7

FIELD WATER REQUIREMENT OF PADDY (WCT) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	96.6	14.9	3.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	107.4	183.8	142.1	139.4	95.4	14.7	3.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.2	0.2	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.145	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY(WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	5.1	0.0	2.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0	29.6	5.3
F-W-R. (MM)	122.3	154.0	139.7	25.9	0.0	0.0	0.0	0.0	0.0	0.0	57.1	154.3
W-R-Q. (MCM)	4.368	5.500	4.991	0.923	0.0	0.0	0.0	0.0	0.0	0.0	2.038	5.512

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	4.6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.4	4.1
F-W-R. (MM)	69.2	67.2	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	42.1
W-R-Q. (MCM)	7.930	7.700	3.780	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.104	4.824

FIELD WATER REQUIREMENT OF UPANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	81.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	4.6	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	4.1
F-W-R. (MM)	76.9	61.0	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	42.1
W-R-Q. (MCM)	8.815	6.994	2.022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.104	4.824

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.113	20.194	10.792	0.923	0.498	0.873	0.732	0.793	0.527	0.078	2.245	15.161

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICITENCY (MCM)	21.113	20.194	10.792	0.923	0.498	0.873	0.732	0.793	0.527	0.078	2.245	15.161

YEAR 6

FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	103.7	181.1	143.8	141.0	96.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	137.4	180.8	142.1	137.4	95.4	15.7	0.0	0.0
F.W.R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.2	0.0	0.0	0.0	0.0
W.R.Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.032	0.002	0.060	0.041	0.000	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY(WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	UCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.2	205.2	173.9	190.0	126.0	18.0	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F.W.R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.0	0.0	0.0
W.R.Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	UCT	NOV	DEC
ET CROP (MM)	127.4	154.0	132.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	5.6	0.0	2.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	27.4	4.8
F.W.R. (MM)	122.8	154.0	130.0	26.1	0.0	0.0	0.0	0.0	0.0	0.0	59.3	154.8
W.R.Q. (MCM)	4.385	5.500	4.999	0.930	0.0	0.0	0.0	0.0	0.0	0.0	2.117	5.530

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	UCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	4.1	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	3.7
F.W.R. (MM)	69.6	67.2	33.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	42.5
W.R.Q. (MCM)	7.980	7.700	3.602	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.139	4.869

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	UCT	NOV	DEC
ET CROP (MM)	51.5	51.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	5.2	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	3.7
F.W.R. (MM)	77.4	61.0	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	42.5
W.R.Q. (MCM)	8.865	6.994	2.037	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.139	4.869

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	UCT	NOV	DEC
DEMAND (MCM)	21.230	20.174	10.341	0.930	0.498	0.373	0.732	0.793	0.527	0.078	2.375	15.268

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	UCT	NOV	DEC
SUPPLYMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.230	20.174	10.341	0.930	0.498	0.373	0.732	0.793	0.527	0.078	2.375	15.268

YEAR /

FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	90.6	14.9	0.0	0.0
RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	100.8	142.1	134.4	95.4	14.7	0.0	0.0
P-W-R (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
M-R-Q (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.005	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (WET) P+SC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	14.6	0.0	0.0
P-W-R (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.5	1.5	0.2	0.0	0.0
M-R-Q (MCM)	0.0	0.0	0.0	0.0	0.045	0.091	0.071	0.073	0.046	0.022	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.1	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	159.6
RAINFALL (MM)	4.6	0.0	2.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	27.4	4.8
P-W-R (MM)	122.8	154.0	140.0	26.1	0.0	0.0	0.0	0.0	0.0	0.0	59.3	154.8
M-R-Q (MCM)	4.005	5.500	4.999	0.930	0.0	0.0	0.0	0.0	0.0	0.0	2.117	5.530

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
RAINFALL (MM)	4.1	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	3.7
P-W-R (MM)	69.6	67.2	33.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	42.5
M-R-Q (MCM)	7.000	7.700	3.802	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.139	4.869

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	31.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
RAINFALL (MM)	4.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	3.7
P-W-R (MM)	27.3	61.0	17.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	42.5
M-R-Q (MCM)	8.805	6.594	2.039	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.139	4.869

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.230	20.194	10.841	0.730	0.470	0.873	0.732	0.793	0.527	0.078	2.395	15.268

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.230	20.194	10.841	0.730	0.470	0.873	0.732	0.793	0.527	0.078	2.395	15.268

YEAR, 2

FILL WATER REQUIREMENT OF PADDY (NET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	96.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	188.8	142.1	139.4	95.4	14.7	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
W-P-Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (NET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.6	154.0	142.1	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	4.3	0.0	2.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	25.6	4.5
F-W-R. (MM)	123.1	154.0	140.1	26.2	0.0	0.0	0.0	0.0	0.0	0.0	61.1	155.2
W-R-Q. (MCM)	4.397	5.500	5.005	0.415	0.0	0.0	0.0	0.0	0.0	0.0	2.182	5.542

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.8	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.7	3.4
F-W-R. (MM)	69.5	67.2	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	42.8
W-R-Q. (MCM)	8.013	7.700	3.817	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.295	4.899

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	31.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.4	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.7	3.4
F-W-R. (MM)	17.7	61.0	17.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	42.8
W-R-Q. (MCM)	8.899	6.994	2.051	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.295	4.899

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.309	20.194	10.873	0.935	0.498	0.873	0.732	0.793	0.527	0.078	2.773	15.340

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.309	20.194	10.873	0.935	0.498	0.873	0.732	0.793	0.527	0.078	2.773	15.340

YEAR

FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	145.8	141.0	96.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	108.8	142.1	139.4	95.4	14.7	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.006	0.0	0.0

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	203.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.471	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	152.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	157.6
E RAINFALL (MM)	4.1	0.0	2.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	24.2	4.2
F-W-R. (MM)	123.3	154.0	150.3	26.3	0.0	0.0	0.0	0.0	0.0	0.0	62.5	153.4
W-R-Q. (MCM)	4.402	5.500	5.500	0.938	0.0	0.0	0.0	0.0	0.0	0.0	2.231	5.551

FIELD WATER REQUIREMENT OF GROUNDNUTS P+G

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.6	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.5	3.3
F-W-R. (MM)	70.1	67.2	33.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	42.9
W-R-Q. (MCM)	8.037	7.700	3.328	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.431	4.920

FIELD WATER REQUIREMENT OF BEANS (DRY) P+G

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	81.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.7	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.5	3.3
F-W-R. (MM)	77.9	61.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	42.9
W-R-Q. (MCM)	8.923	6.994	2.059	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.431	4.920

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.365	20.194	10.976	0.938	0.498	0.873	0.732	0.793	0.527	0.078	4.093	15.391

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.365	20.194	10.976	0.938	0.498	0.873	0.732	0.793	0.527	0.078	3.093	15.391

YEAR 10

FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	96.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	188.8	142.1	139.4	95.4	14.7	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
W-R-O. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.080	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W-R-O. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	125.0	142.1	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	4.0	0.0	2.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	24.1	4.2
F-W-R. (MM)	123.4	125.0	140.1	26.3	0.0	0.0	0.0	0.0	0.0	0.0	62.6	155.5
W-R-O. (MCM)	4.406	5.500	5.010	0.939	0.0	0.0	0.0	0.0	0.0	0.0	2.237	5.552

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	1.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	3.2
F-W-R. (MM)	72.8	67.2	33.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	43.0
W-R-O. (MCM)	0.040	7.700	3.829	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.449	4.923

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	81.5	61.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.6	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	3.2
F-W-R. (MM)	77.9	61.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	43.0
W-R-O. (MCM)	8.926	6.994	2.060	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.449	4.923

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.373	20.194	10.899	0.939	0.498	0.873	0.732	0.793	0.527	0.078	3.135	15.398

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.373	20.194	10.899	0.939	0.498	0.873	0.732	0.793	0.527	0.078	3.135	15.398

YEAR 11

FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	96.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	188.8	142.1	139.4	95.4	14.7	0.0	0.0
F.W.R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
W.R.Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY(WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	203.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F.W.R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W.R.Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	4.6	0.0	2.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0	27.5	4.8
F.W.R. (MM)	122.8	154.0	140.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	59.2	154.8
W.R.Q. (MCM)	4.381	5.500	4.999	0.930	0.0	0.0	0.0	0.0	0.0	0.0	2.113	5.529

FIELD WATER REQUIREMENT OF GROUNDWATS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	4.2	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	3.7
F.W.R. (MM)	69.6	67.2	33.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	42.5
W.R.Q. (MCM)	7.977	7.700	3.831	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.137	4.867

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	31.5	31.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	4.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	3.7
F.W.R. (MM)	27.3	31.0	17.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	42.5
W.R.Q. (MCM)	8.863	6.994	2.039	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.137	4.867

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
OLMAND (MCM)	21.225	20.194	10.830	0.930	0.498	0.873	0.732	0.793	0.527	0.078	2.388	15.263

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (ML4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (ML4)	21.225	20.194	10.830	0.930	0.498	0.873	0.732	0.793	0.527	0.078	2.388	15.263

YEAR 12

FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	96.0	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	106.4	188.8	142.1	139.4	95.4	14.7	0.0	0.0
F.W.R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
M.R.Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY(WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.3	209.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F.W.R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
M.R.Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	159.6
E RAINFALL (MM)	4.3	0.0	2.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
F.W.R. (MM)	123.2	154.0	140.2	26.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	155.2
M.R.Q. (MCM)	4.399	5.500	5.006	0.936	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.544

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	1.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.5	3.4
F.W.R. (MM)	70.0	67.2	31.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	42.8
M.R.Q. (MCM)	3.010	7.700	3.819	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.323	4.903

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	81.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.9	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.5	3.4
F.W.R. (MM)	77.7	61.0	17.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	42.8
M.R.Q. (MCM)	8.904	6.994	2.053	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.323	4.903

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.320	20.194	10.877	0.936	0.498	0.873	0.732	0.793	0.527	0.078	2.838	15.350

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.320	20.194	10.877	0.936	0.498	0.873	0.732	0.793	0.527	0.078	2.838	15.350

YEAR 13

FILLED WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	96.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	188.8	142.1	137.4	95.4	14.7	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY(WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.0	187.7	124.5	18.4	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	4.3	0.0	2.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	25.6	4.5
F-W-R. (MM)	123.1	154.0	140.1	26.2	0.0	0.0	0.0	0.0	0.0	0.0	61.1	155.2
W-R-Q. (MCM)	4.337	5.500	5.005	0.935	0.0	0.0	0.0	0.0	0.0	0.0	2.181	5.542

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	5.9	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.7	3.4
F-W-R. (MM)	67.9	67.2	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	42.7
W-R-Q. (MCM)	3.013	7.700	3.917	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.293	4.898

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	81.3	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.9	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.7	3.4
F-W-R. (MM)	77.7	61.0	17.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	42.7
W-R-Q. (MCM)	8.098	6.994	2.051	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.293	4.898

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.308	20.194	10.872	0.935	0.498	0.873	0.732	0.793	0.527	0.078	2.767	15.339

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.308	20.194	10.872	0.935	0.498	0.873	0.732	0.793	0.527	0.078	2.767	15.339

YEAR 14

FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	105.7	191.1	143.8	141.0	96.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	188.8	142.1	139.4	95.4	14.7	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.7	1.2	0.2	0.0	0.0
M-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY(WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
M-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	4.2	0.0	2.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	25.3	4.4
F-W-R. (MM)	123.2	154.0	140.2	26.2	0.0	0.0	0.0	0.0	0.0	0.0	61.4	155.2
M-R-Q. (MCM)	4.399	5.500	5.006	0.936	0.0	0.0	0.0	0.0	0.0	0.0	2.193	5.544

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.8	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.5	3.4
F-W-R. (MM)	70.0	67.2	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	42.8
M-R-Q. (MCM)	4.610	7.700	3.814	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.325	4.903

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	81.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.8	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.5	3.4
F-W-R. (MM)	77.7	61.0	17.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	42.8
M-R-Q. (MCM)	8.904	6.994	2.053	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.325	4.903

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.321	20.194	10.878	0.736	0.498	0.873	0.732	0.793	0.527	0.078	2.844	15.351

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLEMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.321	20.194	10.878	0.736	0.498	0.873	0.732	0.793	0.527	0.078	2.844	15.351

YEAR 15

FIELD WATER REQUIREMENT OF PADDY (WET) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	9.0	0.0	0.0	0.0	10.7	151.1	143.8	141.0	96.6	14.9	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	104.4	188.8	142.1	139.4	95.4	14.7	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.3	2.3	1.7	1.2	1.2	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.045	0.082	0.062	0.060	0.041	0.006	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY(WET) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	0.0	0.0	0.0	0.0	117.5	205.2	173.9	190.0	126.0	18.6	0.0	0.0
E RAINFALL (MM)	0.0	0.0	0.0	0.0	116.1	202.7	171.8	187.7	124.5	18.4	0.0	0.0
F-W-R. (MM)	0.0	0.0	0.0	0.0	1.4	2.5	2.1	2.3	1.5	0.2	0.0	0.0
W-R-Q. (MCM)	0.0	0.0	0.0	0.0	0.453	0.791	0.671	0.733	0.486	0.072	0.0	0.0

FIELD WATER REQUIREMENT OF PADDY (DRY) P+P

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	127.4	154.0	142.3	27.9	0.0	0.0	0.0	0.0	0.0	0.0	86.7	159.6
E RAINFALL (MM)	3.9	0.0	1.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	23.2	4.0
F-W-R. (MM)	123.5	154.0	140.3	26.3	0.0	0.0	0.0	0.0	0.0	0.0	63.5	155.6
W-R-Q. (MCM)	4.611	5.500	5.012	0.941	0.0	0.0	0.0	0.0	0.0	0.0	2.266	5.557

FIELD WATER REQUIREMENT OF GROUNDNUTS P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	73.8	67.2	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.5	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.7	3.1
F-W-R. (MM)	70.3	67.2	53.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	43.1
W-R-Q. (MCM)	0.055	7.700	3.835	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.529	4.936

FIELD WATER REQUIREMENT OF BEANS (DRY) P+GC

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ET CROP (MM)	81.5	61.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	46.2
E RAINFALL (MM)	3.5	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.7	3.1
F-W-R. (MM)	78.0	61.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	43.1
W-R-Q. (MCM)	0.940	6.994	2.065	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.529	4.936

TOTAL FIELD WATER REQUIREMENT

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEMAND (MCM)	21.406	20.194	10.913	0.941	0.498	0.873	0.732	0.793	0.527	0.078	3.325	15.429

IRRIGATED FROM DIVERSION WORKS

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SUPPLYMENT (MCM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEFICIENCY (MCM)	21.406	20.194	10.913	0.941	0.498	0.873	0.732	0.793	0.527	0.078	3.325	15.429

APPENDIX D-5 RAINFALL DAYS

ANNUAL MEAN NON-RAINFALL DAYS

Station	(Unit: Days)												
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Hmawbi	30	27	30	28	14	4	3	3	6	17	26	29	217
Taikkyi	30	28	30	28	17	5	6	4	12	19	27	30	236
Tharrawaddy	30	28	30	28	18	4	4	4	7	15	26	29	223
Minhla	30	28	30	28	19	8	7	5	11	18	27	30	241
Okpo	30	28	30	29	17	10	11	9	12	19	25	30	250
Gyobingauk	30	28	31	29	22	14	13	15	18	22	28	30	280
Zigon	30	28	30	29	22	11	11	13	16	21	27	30	268
Prome	30	28	30	27	19	8	7	8	11	18	26	30	242
Paukaung	30	28	30	29	21	8	7	9	13	21	26	30	252
Shwedaung	30	28	31	28	21	13	11	14	14	21	28	30	269
Henzada	30	28	30	28	19	5	4	6	11	18	26	30	235
Kyangin	30	28	30	28	20	9	9	8	12	19	27	30	250
Myanaung	30	28	30	28	19	10	11	12	15	22	28	30	263
Ingabu	30	28	30	28	20	6	5	7	13	18	29	30	244
Zalun	30	28	30	28	22	7	7	7	11	21	28	30	249
Danuybu	30	28	30	28	19	7	6	6	11	20	26	30	241
Lemyethna	30	28	31	25	18	4	3	7	12	15	28	30	231
Yegyí	31	28	31	29	18	10	8	12	18	22	29	30	266
Kyonpyaw	30	28	31	27	17	7	3	4	12	20	25	30	234
<u>Average</u>	<u>30</u>	<u>28</u>	<u>30</u>	<u>28</u>	<u>19</u>	<u>8</u>	<u>7</u>	<u>8</u>	<u>12</u>	<u>19</u>	<u>27</u>	<u>30</u>	<u>246</u>

ANNUAL MEAN NON-RAINFALL DAYS
(Less than 1.0 mm)

Station	(Unit: Days)												
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Hmawbi	30	27	30	29	15	6	5	5	8	18	27	29	229
Taikkti	30	28	30	28	19	6	8	5	12	19	27	30	242
Tharrawaddy	30	28	30	29	20	6	5	7	10	17	26	30	238
Minhla	30	28	30	28	20	8	8	5	11	19	27	30	244
Okpo	30	28	30	29	20	13	13	11	14	20	26	30	264
Gyobingauk	30	28	31	29	22	14	14	15	18	22	28	30	281
Zigon	30	28	30	29	22	11	11	13	16	21	27	30	268
Prome	30	28	30	28	20	11	9	10	13	20	27	30	256
Paukkaung	30	28	30	29	22	10	9	11	15	22	27	30	263
Shwedaung	30	28	31	28	21	13	12	14	14	21	28	30	270
Henzada	30	28	30	29	19	6	6	6	11	19	27	30	241
Kyangin	30	28	30	28	20	10	10	9	13	20	28	30	256
Myanaung	30	28	30	28	20	10	12	13	16	23	28	30	268
Ingabu	30	28	30	28	20	7	6	9	14	19	29	30	250
Zalun	30	28	30	28	22	8	7	7	12	22	28	30	252
Danubyu	30	28	30	28	19	8	7	7	12	20	27	30	246
Lemyethna	30	28	31	25	18	4	3	8	12	16	28	30	233
Yegyí	31	28	31	29	19	10	9	12	20	23	29	30	271
Kyonpyaw	30	28	31	27	19	8	4	5	14	22	27	30	245
Average	30	28	30	28	20	9	8	9	13	20	27	30	250

ANNUAL MEAN NON-RAINFALL DAYS
(Less than 5.0 mm)

(Unit: Days)

<u>Station</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>Jun.</u>	<u>Jul.</u>	<u>Aug.</u>	<u>Sep.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Total</u>
Hmawbi	30	28	30	29	19	10	10	10	14	22	28	30	260
Taikkyi	30	28	30	29	22	9	11	9	15	21	28	30	262
Tharrawaddy	30	28	30	29	23	11	10	12	16	21	28	30	268
Minhla	30	28	30	29	22	14	11	11	17	22	28	30	272
Okpo	30	28	30	30	23	19	19	16	19	24	27	30	295
Gyobingauk	30	28	31	29	24	17	18	19	20	24	29	30	299
Zigon	30	28	30	29	23	14	15	17	19	23	28	30	286
Prome	30	28	30	29	24	18	17	19	19	24	28	30	296
Paukkaung	30	28	30	29	24	17	17	19	20	26	28	31	299
Shwedaung	30	28	31	29	24	17	16	18	17	23	28	30	291
Henzada	30	28	30	29	22	11	10	11	17	22	28	30	268
Kayngin	30	28	30	29	24	15	16	16	18	23	28	30	287
Myanaung	30	28	30	29	23	15	17	18	19	24	29	30	292
Ingabu	30	28	31	29	23	12	10	15	18	24	29	31	280
Zalun	30	28	30	29	23	11	11	11	15	24	28	30	270
Danubyu	30	28	30	29	22	12	11	11	16	23	28	30	270
Lemyethna	30	28	31	26	20	9	7	10	18	20	29	31	259
Yegyí	31	28	31	29	21	14	11	14	21	25	29	30	284
Kyonpyaw	31	28	31	28	22	12	8	8	17	23	27	31	266
<u>Average</u>	<u>30</u>	<u>28</u>	<u>30</u>	<u>29</u>	<u>23</u>	<u>14</u>	<u>13</u>	<u>14</u>	<u>18</u>	<u>23</u>	<u>28</u>	<u>30</u>	<u>280</u>

ANNUAL MEAN NON-RAINFALL DAYS
(Less than 10 mm)

(Unit: Days)

Station	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Hmawbi	30	28	30	29	22	15	14	14	19	25	29	30	285
Taikkyi	31	28	30	29	24	14	14	13	18	24	28	30	283
Tharrawaddy	30	28	30	29	25	15	15	17	20	25	29	30	293
Minhla	30	28	30	29	24	18	17	16	22	25	29	30	298
Okpo	31	28	30	30	26	24	22	21	23	27	29	30	321
Gyobingauk	30	28	31	29	25	19	21	22	24	26	29	30	314
Zigon	30	28	30	29	25	18	20	21	23	26	28	31	309
Prome	30	28	31	29	26	22	22	23	22	26	29	30	318
Faukkaung	31	28	31	29	26	21	23	24	24	27	28	31	323
Shwedaung	30	28	31	29	26	22	21	23	20	25	29	30	314
Henzada	30	28	30	29	24	16	13	15	21	25	28	30	289
Kyangin	30	28	30	29	26	19	21	22	23	26	29	31	314
Myanaung	30	28	30	29	25	19	22	22	22	26	29	30	312
Ingabu	30	28	31	29	25	16	15	19	21	26	29	31	300
Zalun	30	28	30	29	25	15	15	15	19	26	29	30	291
Danubyu	30	28	30	29	24	15	16	16	20	25	29	30	292
Lemyethna	31	28	31	27	23	13	12	14	21	24	29	31	284
Yegyí	31	28	31	29	23	16	15	17	22	26	29	30	297
Kyanpyaw	31	28	31	28	24	14	13	13	20	25	28	31	286
<u>Average</u>	<u>30</u>	<u>28</u>	<u>31</u>	<u>29</u>	<u>25</u>	<u>17</u>	<u>17</u>	<u>18</u>	<u>21</u>	<u>26</u>	<u>29</u>	<u>30</u>	<u>301</u>

Station	<u>ANNUAL MEAN NON-RAINFALL DAYS</u> (Less than 30 mm)												(Unit: Days)
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
Hmawbi	30	28	30	29	27	25	24	24	26	29	29	30	331
Taikkyi	31	28	31	29	28	24	23	24	26	28	29	31	332
Tharrawaddy	30	28	31	29	28	25	25	26	27	29	29	30	337
Minhla	30	28	31	29	29	27	26	27	28	29	29	31	344
Okpo	31	28	31	30	29	29	29	29	27	30	30	31	354
Gyobingauk	31	28	31	30	29	27	28	28	28	30	29	30	349
Zigon	31	28	30	29	29	27	28	28	28	29	29	31	347
Prome	31	28	31	30	29	27	29	29	28	29	29	30	350
Paukkaung	31	28	31	30	29	27	29	29	29	30	29	31	353
Shwedaung	31	28	31	29	29	27	29	29	27	29	29	30	348
Henzada	30	28	30	29	29	25	24	25	27	29	29	31	336
Kyangin	30	28	30	29	29	26	29	29	28	29	29	31	347
Myanaung	31	28	31	29	29	27	29	28	27	30	29	30	348
Ingabu	31	28	31	30	28	26	26	26	28	29	29	31	343
Zalun	30	28	31	29	28	25	24	26	26	30	29	31	337
Danubyu	31	28	31	29	28	25	25	25	26	29	29	30	336
Lemyethna	31	28	31	29	27	23	22	22	26	29	30	31	329
Yeyi	31	28	31	30	28	25	24	25	27	28	29	31	337
Kyonpyaw	31	28	31	29	28	24	23	25	27	29	29	31	335
Average	31	28	31	29	28	26	26	27	27	29	29	31	342

APPENDIX D-6 BASIC DATA FOR RUN-OFF COEFFICIENCY

ACCUMULATED SPECIFIC DISCHARGE

Station	(Unit: mm)											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1. Okkan	0	0	0	0	14	99	336	609	759	846	863	866
2. Thegow	0	0	0	0	3	129	339	697	843	924	972	989
3. Kadinbilin	0	0	0	0	44	465	699	939	1,172	1,265	1,289	1,291
4. Bawbin	0	0	0	0	6	62	111	175	204	241	247	247
5. Gamon	0	0	0	0	7	44	104	205	269	283	292	292
6. Taungnyo	0	0	0	0	1	15	87	127	158	174	175	175
7. Wegyi	0	0	0	0	12	75	186	296	355	419	448	457
8. Thegon	0	0	0	0	46	126	212	269	312	335	367	367
9. Shwele												
10. Dingyi	0	0	0	0	10	61	165	273	355	423	449	455
11. Alenawin	0	0	0	0	12	57	116	194	261	303	322	324
12. South Nawin	0	0	0	0	13	69	175	280	360	422	446	450
13. Kyun Yaung	0	0	0	0	0	29	55	92	132	168	170	170
14. Kyun Chaung	0	0	0	0	0	54	94	254	317	376	393	394

ACCUMULATED RAINFALL

(Unit: mm)

<u>Station</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>Jun.</u>	<u>Jul.</u>	<u>Aug.</u>	<u>Sep.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
Tharrawaddy	6.7	7.2	10.6	24.3	220.1	668.9	1,174.0	1,644.9	1,948.2	2,136.1	2,168.5	2,180.6
Minhla	4.5	5.1	6.0	22.7	206.8	567.6	1,007.1	1,433.6	1,655.7	1,828.9	1,855.4	1,858.7
Okpo	1.9	1.9	8.4	10.9	223.7	421.7	675.4	961.7	1,195.0	1,324.5	1,359.4	1,366.2
Gyobingauk	1.3	1.9	1.9	6.0	158.4	448.5	731.4	988.8	1,179.4	1,318.9	1,331.0	1,338.5
Zigon	2.1	2.5	4.4	15.7	183.7	534.6	878.5	1,157.8	1,369.0	1,519.7	1,560.7	1,561.5
Prome	4.6	5.6	6.4	16.8	168.3	414.6	668.7	887.2	1,105.9	1,266.1	1,291.7	1,298.2
Paukkaung	0.9	0.9	2.6	8.6	151.2	450.3	666.5	898.6	1,065.5	1,176.8	1,224.5	1,224.8
Shwedaung	0.7	1.2	1.2	16.1	166.5	444.1	707.8	945.4	1,214.2	1,363.3	1,388.1	1,395.9

Okkan Thegow

Bawbin

Gamon

Wegyi

Thegon

Dingyi, Alenawin
South Nawin

Kyun Chaung

SPECIFIC MONTHLY DISCHARGE

<u>River</u>	<u>C.A</u> <u>(sq.km)</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>Jun.</u>	<u>Jul.</u>	<u>Aug.</u>	<u>Sep.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Total</u>
		<u>(Unit: mm)</u>												
1. Okkan	313.4	0	0	0	0	14	85	237	273	150	87	17	3	866
2. Thegaw	88.1	0	0	0	0	3	126	210	358	146	81	48	17	989
3. Kadinbillin	240.9	0	0	0	0	44	421	234	240	233	93	24	2	1,291
4. Bawbin	261.6	0	0	0	0	6	56	49	64	29	37	6	0	247
5. Gamon	80.3	0	0	0	0	7	37	60	101	64	14	9	0	292
6. Taungnyo	549.1					1	14	72	40	31	16	1	0	175
7. Wegyi	598.7	0	0	0	0	12	63	111	110	59	64	29	9	457
8. Thegon	69.8	0	0	0	0	46	80	86	57	43	23	32	0	367
9. Shwele														
10. Dingyi	323.7	0	0	0	0	10	51	104	108	82	68	26	6	455
11. Alenawin	274.5	0	0	0	0	12	45	59	78	67	42	19	2	324
12. South Nawin	639.7	0	0	0	0	13	56	106	105	80	62	24	4	450
13. Kyun Yaung	64.7	0	0	0	0	0	29	26	37	40	36	2	0	170
14. Kyun Chaung	72.5	0	0	0	0	0	54	40	160	63	59	17	1	394

APPENDIX D-7 WATER REQUIREMENTS

WATER REQUIREMENT OF PADDY ON GROWING STAGE

	M o n t h					
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>	<u>5th</u>	<u>6th</u>
<u>Prome; Wet season paddy of type A</u>						
ETo (mm/day)	6.2	4.2	3.3	3.1	3.3	3.2
Kc value	1.0	1.1	1.1	1.05	1.00	0.95
ET crop (mm/day)	6.20	4.62	3.63	3.26	3.30	3.04
Percolation rate (mm/day)	1.5	1.5	1.5	1.5	1.5	1.5
Total (d)	7.70	6.12	5.13	4.76	4.80	4.54
Water requirement (mm/day)	<u>0.15</u>	<u>3.58</u>	<u>5.13</u>	<u>4.76</u>	<u>2.94</u>	<u>0.64</u>
<u>Prome; Wet season paddy of type B</u>						
ETo (mm/day)	6.2	4.2	3.3	3.1	3.3	3.2
Kc value	1.0	1.1	1.1	1.05	1.00	0.95
ET crop (mm/day)	6.20	4.62	3.63	3.26	3.30	3.04
Percolation rate (mm/day)	2.5	2.5	2.5	2.5	2.5	2.5
Total (d)	8.70	7.12	6.13	5.76	5.80	5.54
Water requirement (mm/day)	<u>0.17</u>	<u>4.17</u>	<u>6.13</u>	<u>5.76</u>	<u>3.56</u>	<u>0.78</u>
<u>Prome; Dry season paddy of type A</u>						
ETo (mm/day)	3.1	2.9	3.1	4.1	5.1	7.4
Kc value	1.0	1.1	1.1	1.25	1.13	1.0
ET crop (mm/day)	3.10	3.19	3.41	5.13	5.76	7.40
Percolation rate (mm/day)	1.5	1.5	1.5	1.5	1.5	1.5
Total (d)	4.60	4.69	4.91	6.63	7.26	8.90
Water requirement (mm/day)	<u>0.09</u>	<u>2.68</u>	<u>4.91</u>	<u>6.63</u>	<u>6.35</u>	<u>1.61</u>
<u>Tharrawaddy; Wet season paddy of type A'</u>						
ETo (mm/day)	5.4	4.1	3.9	3.6	4.1	3.1
Kc value	1.0	1.1	1.1	1.05	1.0	0.95
ET crop (mm/day)	5.40	4.51	4.29	3.78	4.10	2.95
Percolation (mm/day)	1.5	1.5	1.5	1.5	1.5	1.5
Total (d)	6.90	6.01	5.79	5.28	5.60	4.45
Water requirement (mm/day)	<u>0.10</u>	<u>2.87</u>	<u>5.60</u>	<u>5.28</u>	<u>3.92</u>	<u>0.49</u>

	M o n t h					
	1st	2nd	3rd	4th	5th	6th

Tharrawaddy; Wet season paddy of type B'

ETo (mm/day)	5.4	4.1	3.9	3.6	4.1	3.1
Kc value	1.0	1.1	1.1	1.05	1.0	0.95
ET crop (mm/day)	5.40	4.51	4.29	3.78	4.10	2.95
Percolation (mm/day)	2.5	2.5	2.5	2.5	2.5	2.5
Total (d)	7.90	7.01	6.79	6.28	6.60	5.45
Water requirement (mm/day)	<u>0.12</u>	<u>3.35</u>	<u>6.57</u>	<u>6.28</u>	<u>4.62</u>	<u>0.60</u>

Tharrawaddy; Dry season paddy of type A'

ETo (mm/day)	2.7	2.4	2.5	3.6	4.7	6.7
Kc value	1.0	1.1	1.1	1.25	1.13	1.0
ET crop (mm/day)	2.70	2.64	2.75	4.50	5.31	6.70
Percolation (mm/day)	1.5	1.5	1.5	1.5	1.5	1.5
Total (d)	4.20	4.14	4.25	6.00	6.81	8.20
Water requirement (mm/day)	<u>0.07</u>	<u>1.91</u>	<u>4.11</u>	<u>6.00</u>	<u>5.10</u>	<u>1.15</u>

Henzada; Wet season paddy of type A'

ETo (mm/day)	4.2	3.1	3.0	2.9	3.1	3.0
Kc value	1.0	1.1	1.1	1.05	1.0	0.95
ET crop (mm/day)	4.20	3.41	3.30	3.05	3.10	2.85
Percolation (mm/day)	1.5	1.5	1.5	1.5	1.5	1.5
Total (d)	5.70	4.91	4.80	4.55	4.60	4.35
Water requirement (mm/day)	<u>0.09</u>	<u>2.35</u>	<u>4.64</u>	<u>4.55</u>	<u>3.22</u>	<u>0.48</u>

Henzada; Wet season paddy of type B'

ETo (mm/day)	4.2	3.1	3.0	2.9	3.1	3.0
Kc value	1.0	1.1	1.1	1.25	1.13	1.0
ET crop (mm/day)	4.20	3.41	3.30	3.63	3.50	3.00
Percolation (mm/day)	2.5	2.5	2.5	2.5	2.5	2.5
Total (d)	6.70	5.91	5.80	6.13	6.00	5.50
Water requirement (mm/day)	<u>0.10</u>	<u>2.82</u>	<u>5.61</u>	<u>6.13</u>	<u>4.20</u>	<u>0.60</u>

Henzada; Dry season paddy of type A'

ETo (mm/day)	2.7	2.4	2.5	3.2	4.1	5.1
Kc value	1.0	1.1	1.1	1.25	1.13	1.0
ET crop (mm/day)	2.70	2.64	2.75	4.00	4.63	5.10
Percolation (mm/day)	1.5	1.5	1.5	1.5	1.5	1.5
Total (d)	4.20	4.14	4.25	5.50	6.13	6.60
Water requirement (mm/day)	<u>0.09</u>	<u>1.91</u>	<u>4.11</u>	<u>5.50</u>	<u>4.59</u>	<u>0.93</u>

WATER REQUIREMENT FOR GROWING STAGE OF PADDY

Basic equation for Type A & B (Growing period of 145 days)

On first month

			ℓ		
	1	2	3	ℓ
$\frac{A}{x}$					
$\frac{A}{x}$					
$\frac{A}{x}$					
$\frac{A}{x}$					
$\frac{A}{x}$					
$\frac{A}{x}$					
$\frac{A}{x}$					

Where
 x ; Transplanting period (days)
 A ; Irrigable area (ha)
 ℓ ; Application period of water requirement (days)
 d ; Consumptive use (mm/day)

$$Q_1 (\text{mm/day}) = \frac{A}{x} \cdot \left(\frac{1 + \ell_1}{2} \right) \cdot \ell_1 \cdot d_1 \cdot \frac{1}{n_1}$$

On second month

$$Q_2 = \left[1.0 - \left(\frac{1 + \ell_2}{2} \right) \cdot \ell_2 \cdot \frac{1}{n_2} \cdot \frac{1}{x} \right] d_2 \cdot A$$

On third and fourth month

$$Q = 1.0 \cdot d \cdot A$$

On fifth month

$$Q = \left[1.0 - \frac{1}{x} \cdot \left(\frac{1 + \ell_3}{2} \right) \cdot \ell_3 \cdot \frac{1}{n_3} \right] d_5 \cdot A$$

On sixth month

$$Q = \frac{A}{x} \cdot \left(\frac{1 + \ell_4}{2} \right) \cdot \ell_4 \cdot d \cdot \frac{1}{n_4}$$

Basin equation for Type A' & B' (Growing period of 135 days)

On first month

$$Q_1 = \frac{A}{x} \cdot \left(\frac{1+l_1}{2}\right) \cdot l_1 \cdot d \cdot \frac{1}{n_1}$$

On second month

$$Q_2 = \frac{A}{x} \left[\left(\frac{1+l_2}{2}\right) \cdot l_2 - \left(\frac{1+l_1}{2}\right) \cdot l_1 \right] \cdot d \cdot \frac{1}{n_2}$$

On third month

$$Q_3 = \left[1.0 - \left(\frac{1+l_3}{2}\right) l_3 \cdot \frac{1}{n_3 x} \right] A \cdot d$$

On fourth month

$$Q_4 = 1.0 d \cdot A$$

On fifth month

$$Q_5 = \left[1.0 - \left(\frac{1+l_4}{2}\right) l_4 \cdot \frac{1}{n_4 x} \right] A \cdot d$$

On Sixth month

$$Q_6 = \left(\frac{1+l_5}{2}\right) l_5 \cdot \frac{A}{x} \cdot d \cdot \frac{1}{n_5}$$

Paddy Type	Wet Season Paddy				Dry Season Paddy	
	A	B	A'	B'	A	A'
x	35	35	45	45	35	45
l ₁	6	6	6	6	6	6
n ₁	31	31	31	31	30	30
Q ₁	0.0194 d·A		0.0151 d·A		0.02 d·A	0.0156 d·A
l ₂	29	29	36	36	30	36
n ₂	30	30	30	30	31	31
Q ₂	0.5857 d ₂ ·A		0.4778 d ₂ ·A		0.5714 d ₂ ·A	0.4624 d ₂ ·A
Q ₃	1.0 d ₃ ·A		0.9677 d ₃ ·A		1.0 d ₃ ·A	0.9677 d ₃ ·A
Q ₄	1.0 d ₄ ·A		1.0 d ₄ ·A		1.0 d ₄ ·A	1.0 d ₄ ·A
l ₃	28	28	9	9	16	9
n ₃	30	30	31	31	31	31
Q ₅	0.6133 d ₅ ·A		0.6993 d ₅ ·A		0.8747 d ₅ ·A	0.7484 d ₅ ·A
l ₄	17	17	28	28	19	26
n ₄	31	31	30	30	31	31
Q ₆	0.1410 d ₆ ·A		0.1097 d ₆ ·A		0.1810 d ₆ ·A	0.1407 d ₆ ·A
l ₅			17	17		19
n ₅			31	31		30

WATER REQUIREMENT BY MONTH
(DURING LAND SOAKING AND LAND PREPARATION)

Basic equation for first month

$$Q = \left(\frac{n}{x} \cdot a \cdot A + \frac{n-11}{x} \cdot b \cdot A + \frac{n-20}{x} \cdot c \cdot A \right) \frac{1}{n} = \{n \cdot a + (n-11) \cdot b + (n-20) \cdot c\} \frac{A}{x \cdot n}$$

for second month

$$Q = \left\{ \frac{(x-n)}{x} \cdot a \cdot A + \frac{(x-n+11)}{x} \cdot b \cdot A + \frac{(x-n+20)}{x} \cdot c \cdot A \right\} \frac{1}{m}$$

$$= \{(x-n) \cdot a + (x-n+11) \cdot b + (x-n+20) \cdot c\} \frac{A}{m \cdot x}$$

Where

- Q; Water requirement in depth a day (mm/day)
- a; Depth of first irrigation water (mm)
- b; Depth of second irrigation water (mm)
- c; Depth of third irrigation water (mm)
- n.m; Days of a month
- x; Transplanting period (day)
- A; Irrigable area

Item	Place	Type	x	a	b	c	n	m	Water requirement		
									1st	2nd	
										(mm/day)	

a) Starting at end of dry season

Prome	A	35	109	49	82	31	30	4.85A	2.99A
"	B	35	118	58	88	31	30	5.33A	3.29A
Tharrawaddy	A'	45	106	46	80	31	30	3.65A	3.97A
"	B'	45	115	55	86	31	30	4.02A	4.38A
Henzada	A'	45	98	38	76	31	30	3.32A	3.63A
"	B'	45	107	47	81	31	30	3.69A	4.02A

b) Starting at end of wet season

Prome	A	35	79	34	72	30	31	3.56A	2.52A
Tharrawaddy	A'	45	84	31	70	30	31	2.82A	3.24A
Henzada	A'	45	84	31	70	30	31	2.82A	3.24A

APPLICATION OF WATER REQUIREMENT FOR LAND SOAKING
AND LAND PREPARATION

Day	Activity	Water Requirement (mm)	Planting Details
0	1st Irrigation	109	
3	Plowing	(=60 + 1.5 x 9 + 3.9 x 9)	
5th day		118	
		(=60 + 2.5 x 9 + 3.9 x 9)	
		106	
		(=60 + 1.5 x 9 + 3.6 x 9)	
		115	
		(=60 + 2.5 x 9 + 3.6 x 9)	
		98	
		(=60 + 1.5 x 9 + 2.7 x 9)	
		107	
		(=60 + 2.5 x 9 + 2.7 x 9)	
10th day	2nd Irrigation	49	
11		58	
		(=1.5 x 9 + 3.9 x 9)	
		46	
		(=2.5 x 9 + 3.9 x 9)	
		55	
		(=1.5 x 9 + 3.6 x 9)	
		38	
		(=2.5 x 9 + 2.7 x 9)	
		47	
		(=1.5 x 9 + 2.7 x 9)	
13	1st Harrowing	34	
15th day		31	
		(=1.5 x 9 + 1.9 x 9)	
20th day	3rd Irrigation	82	
22	2nd Harrowing	88	
		(=50 + 2.5 x 6 + 3.9 x 6)	
		80	
		(=50 + 1.5 x 6 + 3.6 x 6)	
		86	
		(=50 + 2.5 x 6 + 3.6 x 6)	
		76	
		(=50 + 1.5 x 6 + 2.7 x 6)	
		81	
		(=50 + 2.5 x 6 + 2.7 x 6)	
25th day	Transplanting	72	
		(=50 + 1.5 x 6 + 2.3 x 6)	
		70	
		(=50 + 1.5 x 6 + 1.9 x 6)	

In end of dry season
In end of wet season

WATER REQUIREMENT FOR LAND SOAKING AND LAND PREPARATION

Sr. No.	Item	In end of dry season		In end of wet season	
		Type A	Type B	Type A	Type B
1.	Top soil saturation 150 mm depth 50% depth	80% dry	80% dry	80% dry	70% dry
2.	Requirement (mm) 150 mm x 0.5 x (1)	60	60	45	53
3.	Percolation loss (mm/day)	1.5	2.5	1.5	1.5
4.	Total percolation loss (mm) during 24 days of preparation	36	60	36	36
5.	Standing water requirement (mm)	50	50	50	50
6.	Evaporation loss				
	Prome	94	94	54	*
	Tharrawaddy	*	*	*	46
	Henzada	*	*	*	46
7.	Total (2 + 4 + 5 + 6)				
	Prome	240	264	185	*
	Tharrawaddy	*	*	*	185
	Henzada	*	*	*	185

Note; The cropping pattern with * mark is not applied in this area.

ETo by PENMAN METHOD

(STATION: PROME)

Item	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
t mean	23.9	25.8	29.6	32.2	30.7	30.6	27.4	28.0	27.9	27.5	26.1	23.6
ea	29.6	33.1	41.5	48.4	44.3	44.0	36.4	37.7	37.5	36.6	33.7	29.1
RH mean	45	48	42	49	63	86	87	88	88	84	74	65
ed	13.3	15.9	17.4	23.7	27.9	37.8	31.7	33.2	33.0	30.7	24.9	18.9
(4)	16.3	17.2	24.1	24.7	16.4	6.2	4.7	4.5	4.5	5.9	8.8	10.2
U2	96.5	108.2	112.1	154.6	146.6	123.6	112.1	108.2	88.8	85.0	104.4	139.0
fu	0.53	0.56	0.57	0.69	0.67	0.60	0.57	0.56	0.51	0.50	0.55	0.65
l-w	0.27	0.25	0.22	0.20	0.21	0.21	0.24	0.23	0.23	0.23	0.25	0.27
(8)	2.33	2.41	3.02	3.41	2.31	0.78	0.64	0.58	0.53	0.58	1.21	1.79
Ra	11.4	12.9	14.5	15.6	16.2	16.3	16.2	15.9	14.8	13.5	11.8	10.9
n	9.3	10.2	9.3	9.5	7.2	4.5	5.1	3.8	5.8	7.4	7.7	8.8
N	11.1	11.5	12.0	12.6	13.0	13.2	13.1	12.8	12.3	11.7	11.2	11.0
n/N	0.84	0.89	0.78	0.75	0.55	0.34	0.39	0.30	0.47	0.60	0.69	0.80
(13)	0.50	0.52	0.48	0.47	0.39	0.32	0.33	0.30	0.36	0.41	0.45	0.49
Rns	5.7	6.7	7.0	7.3	6.3	5.2	5.3	4.8	5.3	5.5	5.3	5.3
f(t)	15.4	15.9	16.7	17.2	17.0	17.0	16.1	16.3	16.3	16.3	15.9	15.4
f(ed)	0.27	0.24	0.23	0.17	0.14	0.07	0.11	0.10	0.10	0.12	0.17	0.22
f(n/N)	0.86	0.90	0.80	0.78	0.60	0.41	0.45	0.37	0.52	0.64	0.72	0.82
Rn1	3.6	3.4	3.1	2.3	1.4	0.5	0.8	0.6	0.8	1.3	1.9	2.8
Rn	2.1	3.3	3.9	5.0	4.9	4.7	4.5	4.2	4.5	4.2	3.4	2.5
W	0.73	0.75	0.78	0.80	0.79	0.79	0.76	0.77	0.77	0.77	0.75	0.73
W-Rn	1.5	2.5	3.0	4.0	3.9	3.7	3.4	3.2	3.5	3.2	2.6	1.8
ETo	3.8	4.9	6.0	7.4	6.2	4.5	4.0	3.8	4.0	3.9	3.8	3.6
ET correction	3.1	4.1	5.1	7.4	6.2	4.2	3.3	3.1	3.3	3.2	3.1	2.9

°C

%

km/day

alt.=20m

mm/day

mm/day

hr/day

lat.=19°N

lat.=10°N

α=0.25

(14)=(9)x(13)

(18)=(15)x(16)x(17)

(19)=(14)-(18)

mm/day

mm/day

mm/day

ETo by PENMAN METHOD

(STATION: THARRAWADDY)

Item	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
t mean	22.5	24.7	28.0	30.7	30.1	27.7	27.2	27.3	27.6	27.3	26.5	23.4
ea	27.2	31.0	37.7	44.3	42.7	37.1	36.0	36.2	36.8	36.2	34.5	28.7
RH mean	71	61	58	60	78	90	91	90	89	87	86	84
ed	19.3	18.9	21.9	26.6	33.3	33.4	32.8	32.6	32.8	31.5	29.7	24.1
(4)	7.9	12.1	15.8	17.7	9.4	3.7	3.2	3.6	4.0	4.7	4.8	4.6
U ₂	69.6	98.9	98.9	146.9	129.7	162.0	146.6	146.6	141.1	77.3	65.8	81.1
fu	0.46	0.54	0.54	0.67	0.62	0.71	0.67	0.67	0.65	0.48	0.45	0.49
l-w	0.28	0.26	0.23	0.21	0.22	0.23	0.24	0.24	0.23	0.24	0.24	0.28
(8)	1.02	1.70	1.96	2.49	1.28	0.60	0.51	0.58	0.60	0.54	0.52	0.63
Ra	11.6	13.0	14.6	15.6	16.1	16.1	16.1	15.8	14.9	13.6	12.0	11.1
n	9.3	10.2	9.3	9.5	7.2	4.5	5.1	3.8	5.8	7.4	7.7	8.8
N	11.1	11.5	12.0	12.6	13.0	13.2	13.1	12.8	12.3	11.7	11.2	11.0
n/N	0.84	0.89	0.78	0.75	0.55	0.34	0.39	0.30	0.47	0.60	0.69	0.80
(13)	0.50	0.52	0.48	0.47	0.39	0.32	0.33	0.30	0.36	0.41	0.45	0.49
Rns	5.8	6.8	7.0	7.3	6.3	5.2	5.3	4.7	5.4	5.6	5.4	5.4
f(t)	15.2	15.7	16.3	17.0	16.7	16.3	16.1	16.1	16.3	16.1	16.1	15.2
f(ed)	0.22	0.22	0.19	0.15	0.10	0.10	0.11	0.11	0.11	0.12	0.13	0.17
f(n/N)	0.86	0.90	0.80	0.78	0.60	0.41	0.45	0.37	0.52	0.54	0.72	0.82
Rn1	2.9	3.1	2.5	2.0	1.0	0.7	0.8	0.7	0.9	1.2	1.5	2.1
Rn	2.9	3.7	4.5	5.3	5.3	4.5	4.5	4.0	4.5	4.4	3.9	3.3
W	0.72	0.74	0.77	0.79	0.78	0.77	0.76	0.76	0.77	0.76	0.75	0.72
W-Rn	2.1	2.7	3.5	4.2	4.1	3.5	3.4	3.0	3.5	3.3	2.9	2.4
ETo	3.1	4.4	5.5	6.7	5.4	4.1	3.9	3.6	4.1	3.8	3.4	3.0
ET correction	2.5	3.6	4.7	6.7	5.4	4.1	3.9	3.6	4.1	3.1	2.7	2.4

ETo by PENMAN METHOD

(STATION: HENZADA)

Item	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
t mean	23.3	24.8	28.7	30.4	29.9	27.3	26.9	27.1	27.4	27.5	26.5	23.9
ea	28.6	31.2	39.3	43.5	42.2	36.2	35.3	35.8	36.4	36.6	34.5	29.6
RH mean	71	62	58	60	70	90	92	83	87	83	79	72
ed	20.3	19.3	22.8	26.1	29.5	32.6	32.5	29.7	31.7	30.4	27.3	21.3
(3)=(1)x(2)												
(1)-(3)	8.3	11.9	16.5	17.4	12.7	3.6	2.8	6.1	4.7	6.2	7.2	8.3
U2	27.1	38.6	38.6	81.1	46.3	57.8	38.6	38.6	42.5	27.1	38.6	42.5
Uz	0.34	0.37	0.37	0.49	0.40	0.43	0.37	0.37	0.38	0.34	0.37	0.38
Fu	0.28	0.26	0.23	0.22	0.22	0.24	0.24	0.24	0.24	0.23	0.24	0.27
l-w	0.79	1.14	1.40	1.88	1.12	0.37	0.25	0.54	0.43	0.48	0.64	0.85
(8)	11.6	13.0	14.6	15.6	16.1	16.1	16.1	15.8	14.9	13.6	12.0	11.1
Ra	9.3	10.2	9.3	9.5	7.2	4.5	5.1	3.8	5.8	7.4	7.7	8.8
n	11.1	11.5	12.0	12.6	13.0	13.2	13.1	12.8	12.3	11.7	11.2	11.0
N	0.84	0.89	0.78	0.75	0.55	0.34	0.39	0.30	0.47	0.60	0.69	0.80
n/N	0.50	0.52	0.48	0.47	0.39	0.32	0.33	0.30	0.36	0.41	0.45	0.49
(13)	5.8	6.8	7.0	7.3	6.3	5.2	5.3	4.7	5.4	5.6	5.4	5.4
Rns	15.2	15.7	16.5	16.7	16.7	16.1	16.1	16.1	16.1	16.3	16.1	15.4
f(t)	0.20	0.21	0.18	0.16	0.13	0.11	0.11	0.10	0.11	0.13	0.15	0.20
F(ed)	0.86	0.90	0.80	0.78	0.60	0.41	0.45	0.37	0.52	0.64	0.72	0.82
f(n/N)	2.6	3.0	2.4	2.1	1.3	0.7	0.8	0.6	0.9	1.4	1.7	2.5
Pnl	3.2	3.8	4.6	5.2	5.0	4.5	4.5	4.1	4.5	4.2	3.7	2.9
Rn	0.72	0.74	0.77	0.78	0.78	0.76	0.76	0.76	0.76	0.77	0.75	0.73
W	2.3	2.8	3.5	4.1	3.9	3.4	3.4	3.1	3.4	3.2	2.8	2.1
W·Rn	3.1	3.9	4.9	6.0	5.0	3.8	3.7	3.6	3.8	3.7	3.4	3.0
ETo												
ET correction	2.5	3.2	4.1	5.1	4.2	3.1	3.0	2.9	3.1	3.0	2.7	2.4

APPENDIX D-8 COST ESTIMATION

UNIT COST OF DIVERSION DAM

1 Dam body

The unit cost of the diversion dam of the South Nawin Irrigation Project is applied for the diversion dam body. Above unit cost is used from the interim report of above project, Nov., 1979.

$$24,253,000 \text{ Kyat}/1,600 \text{ m} = 15,158 \text{ Ks/m}$$

(say 16,000 Ks/m)

2. Intake facilities per place

	<u>Qunt'y</u>	<u>Unit</u>	<u>Unit Cost</u> (ks)	<u>Cost</u> ('000ks)
(1) Fish Rudder				
Earth works	969	cu.m	15.15	14
Concrete works	336	"	392.40	131
R. iron bar	3.4	ton	6,570.00	22
<u>Total</u>				<u>167</u>
(2) Intake Works				
Earth works	7,709	cu.m	15.15	116
Concrete works	703	"	392.40	275
R. iron bar	49.2	ton	6,570	323
<u>Total</u>				<u>714</u>
(3) Slope Protection				
Earth works	12,708	cu.m	15.15	192
Concrete works	903	"	287.80	259
R. iron bar	63.2	ton	6,570	415
Brick works	888	sq.m	35.9	31
<u>Total</u>				<u>897</u>
(4) Abutment Works				
Earth works	553	cu.m	15.15	8
Concrete works	37	"	287.8	10
R. iron bar	1.9	ton	6,570	12
<u>Total</u>				<u>30</u>

	<u>Qunt'y</u>	<u>Unit</u>	<u>Unit Cost</u> (ks)	<u>Cost</u> ('000ks)
(5) Gate				
Gate 2.0 x 1.6	2	pcs		347
Gate 1.2 x 1.2	1	pc		116
Screen 3.5 x 2.2	2	pcs		66
Screen 1.2 x 1.5	1	pc		8
<u>Total</u>				<u>537</u>
<u>Grand Total</u>				<u>2,345</u>

3. Gate for spill (Gate length = 153 m)

(1) Dam Body

Earth works	18,358	cu.m	15.15	278
Concrete works	6,221	"	287.8	1,790
R. iron bar	16.2	ton	6,570	106
Rip lap	9,600	sq.m	26.1	250
Sheet pile (l = 8 m)	150	m	900	135
<u>Total</u>				<u>2,559</u>

(2) Pier Works

Concrete works	1,504	cu.m	392.4	590
R.iron bar	30.1	ton	6,570	197
<u>Total</u>				<u>787</u>

(3) Gate

Scouring sluice gate (12.8 m x 2.9 m)	2	pcs		3,900
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(4) Gate for spillway
(31.8 m x 2.7 m)

O & M bridge	153	m	21,000	3,213
Step	6	pcs		309
Emergency gate		LS		2,314
<u>Total</u>				<u>25,164</u>

(5) Operation Room & Control Equipments

Operation room	288	sq.m	1,900	547
Control equipment		LS		6,429
<u>Total</u>				<u>6,976</u>

	<u>Qunt'y</u>	<u>Unit</u>	<u>Unit Cost</u> (ks)	<u>Cost</u> ('000ks)
(6) Engine Room				
Engine room	257	sq.m	1,100	282
<u>Total</u>				<u>282</u>
(7) Temporary Works				
15 % of (1) to (6)				5,365
<u>Grand Total</u>				<u>41,133</u>

Unit Cost 41,133,000 Ks/153 m = 268,843 Ks/m

Say = 269,000 Ks/m

APPENDIX BREAKDOWN OF PROJECT COST
(South Nawin Irrigation Project)

	(Unit: '000 Kyats)			Total
	Main dam	Diversion dam	Irrigation & drainage systems	
1. Civil works				
(1) Preparation	5,515	2,183	-	7,698
(2) Main Dam	55,150	-	-	55,150
(3) Diversion Dam	-	21,830	-	21,830
(4) Irr. & Drainage Systems	-	-	58,406	58,406
(5) Pre-Engineering	607	240	584	1,431
<u>Sub-total (per ha)</u>	<u>61,272</u>	<u>24,253</u>	<u>58,990</u>	<u>144,515</u>
2. Compensation	1,310	145	-	1,455
3. Construct'n Equip't	59,962	25,698	37,690	123,350
4. Agriculture Develop't	-	-	5,300	5,300
5. O & M Cost	975	386	939	2,300
6. Project Facilities	1,569	621	1,510	3,700
7. Project Adminst'n	7,140	2,826	6,874	16,840
8. Consut's Service	4,880	4,880	2,440	12,200
<u>Total (1 to 8)</u>	<u>137,108</u>	<u>58,809</u>	<u>113,773</u>	<u>309,690</u>
9. Contingency (15 %)	20,502	8,801	17,007	46,310
<u>Total (1 to 9)</u>	<u>157,610</u>	<u>67,610</u>	<u>130,780</u>	<u>356,000</u>
10. Price Escalation	31,520	13,520	26,160	71,200
<u>G. Total</u>	<u>189,130</u>	<u>81,130</u>	<u>156,940</u>	<u>427,200</u>
(1,000 US\$)	(29,368)	(12,598)	(24,370)	(66,335)
(US\$ per ha)	(1,161)	(498)	(963)	(2,621)

Unit Cost of Irrigation and drainage aspect

$$(58,990 + 37,690 + 5,330) \div 25,300 \text{ ha} = 4,032$$

Say 4,100 Kyat/ha

COST ESTIMATE OF DIVERSION DAM

Project	C.A (sq.km)	Q (cu.m/sec)	Gate Width (m)	Intake		Cost Estimate ('000, Ks)		Total
				etc.	etc.	Gate	Body	
1. Taunyo	52.1	172	15.6	2,345	4,196	24.4	390	6,931
2. Bawbin	165.8	547	49.7	2,345	13,369	10.3	164	15,878
3. Gamon	51.8	171	15.5	2,345	4,169	44.5	712	7,226
4. Minhla	77.8	257	23.3	2,345	6,267	36.7	587	9,199
5. Kadinbilin	132.9	439	29.3	2,345	7,881	30.7	491	10,717
6. Thonze	88.3	291	9.4	2,345	2,528	110.6	1,769	6,642
7. Okkan	88.3	291	9.4	2,345	2,528	70.6	1,129	6,002
8. Mamy	100.0	330	30.0	4,690	8,070	150.0	2,400	15,160
9. Mankathu	115.8	382	34.7	4,690	9,334	85.3	1,364	15,388
10. Nankdthu	265.2	875	79.5	4,690	21,385	100.5	1,608	27,683
11. Mezili	39.1	129	23.5	2,345	6,321	36.5	584	9,250
12. South Kun	44.9	148	13.5	4,690	3,631	86.5	1,384	9,705
13. Kyetpaung	126.8	418	38.0	4,690	10,222	72.0	1,152	16,064

Note: C.A Catchment Area

Q Flood discharge = CA x 3.3 cu.m/sec/sq.km.
The specific discharge of 3.3 cu.m/sec/sq.km is estimated based on data observed on the Kadinbilin river.

The gate width is calculated based on the maximum velocity of 2.0 m/sec at the gate and gate height of 5.5 m during flooding period.

1/ This is including intake facilities, fish rudder, slope protection works and abutments.

2/ Slide-gate type.

3/ The unit cost of the South Nawin Irrigation Project is applied.

COST ESTIMATE

Name of Irrigation Project	Embankment Vol. ('000 cu.m)	Dam Cost			Sub-total ('000 Kyat)	Diversion Dam		Irrigation & Drainage System		Land Consolidation		
		Earth Works (13%)	Other Earth Works (13%)	Spillway (25%)		Intake (8.4%)	Length (m)	Cost	Area (ha)	Cost (K4,100/ha)	Area (ha)	Cost (K2,800/ha)
1. Weyyi	2,964	44,904	5,837	11,226	3,771	65,738	-	33,000	135,300	92,400	33,000	293,438
2. Taunyo	1,796	27,209	3,537	6,802	2,285	39,833	40	6,931	77,490	52,920	18,900	177,174
3. Bawbin	3,446	52,206	6,786	13,051	4,385	76,428	60	15,878	53,300	36,400	13,000	182,006
4. Gamon	2,039	30,890	4,015	7,722	2,594	45,221	60	7,226	18,450	30,240	4,500	101,137
5. Minhla	1,782	26,997	3,509	6,749	2,267	39,522	60	9,199	32,800	22,400	8,000	103,921
6. Kadinbillin	687	10,408	1,353	2,602	874	15,237	60	10,717	77,900	53,200	19,000	157,054
7. Thegaw	1,318	19,967	2,595	4,991	1,677	29,230	-	12,900	52,890	36,120	12,900	118,240
8. Thonze	1,826	27,663	3,596	6,915	2,323	40,497	120	6,642	161,950	82,600	39,500	291,689
9. Okkan	387	5,863	762	1,465	492	8,582	80	6,002	127,100	86,800	31,000	228,484
10. Nyangging	442	6,696	870	1,674	562	9,802	-	1,400	5,740	3,920	1,400	19,462
11. Buyo	1,753	31,869	3,186	6,373	2,230	43,658	-	4,900	20,090	13,720	4,900	77,468
12. Thaledan	439	6,650	864	1,662	558	9,734	-	2,500	10,250	7,000	2,500	26,984
13. Alonmoyak	2,385	43,359	4,335	8,571	3,035	59,400	-	8,000	32,800	22,400	8,000	114,600
14. North Kun	1,882	34,214	3,421	6,842	2,394	46,871	-	5,300	21,730	14,840	5,300	63,441
15. Phatshin	1,392	25,306	2,530	5,061	1,771	34,668	-	3,000	12,300	8,400	3,000	55,368
16. Mamyá	5,699	103,607	10,360	20,721	7,252	141,940	180	15,160	34,850	23,800	8,500	215,750
17. Kyanyin	3,755	68,265	6,826	13,653	4,778	93,522	-	16,400	67,240	45,920	16,400	206,682
18. Hantathu	3,960	71,992	7,199	14,398	5,039	98,628	120	15,388	68,470	46,760	16,700	229,246
19. Nankathu	3,403	61,855	6,186	12,373	4,330	84,755	180	27,683	92,000	56,000	20,000	250,439
20. Gyat	3,512	63,848	6,384	12,769	4,469	87,470	-	20,000	82,000	56,000	20,000	225,470
21. Mezili	2,866	52,103	5,210	10,420	3,647	71,380	60	9,250	77,900	53,200	19,000	211,730
22. South Kum	2,619	47,613	4,761	9,522	3,332	65,228	100	9,705	79,540	54,320	18,400	208,793
23. Kyetpaung	1,269	19,225	2,499	4,806	1,614	28,144	110	16,064	8,200	5,600	2,000	58,008

(Unit: '000 Kyat)

APPENDIX D-9 COST ESTIMATE FOR PILOT LAND CONSOLIDATION

<u>Description</u>	<u>Total</u> ('000 K)	<u>Foreign</u> <u>Currency</u> ('000 K)	<u>Local</u> <u>Currency</u> ('000 K)
1. Irrigation & Drainage Facilities			
Pumping Station	8,600	8,100	500
Check-up Weir	2,000	1,200	800
Irrigation & Drainage Canals	5,200	300	4,900
Sub-total	<u>15,800</u>	<u>9,600</u>	<u>6,200</u>
2. Land Consolidation (3,000 ac)	6,000	1,800	4,200
3. Compensation	500	-	500
4. Construction Equipment	2,000	2,000	-
5. Agri. Development	6,300	6,300	-
6. O & M Cost	1,600	1,000	600
7. Project Facilities	2,100	100	2,000
8. Engineering Fee	5,100	4,600	500
Total	<u>39,400</u>	<u>25,400</u>	<u>14,000</u>
9. Contingency (15%)	5,900	3,800	2,100
10. Price Escalation (20%)	9,000	5,800	3,200
Grand Total	<u>54,300</u>	<u>35,000</u>	<u>19,300</u>

NOTE: Based on the South Nawin Irrigation Project.

JICA