Table F.27 Irrigation Water Requirement and Diversion Requirement of Sataon Area (1/6)

Input data of Sataon Area of Sharda Canal CAD Project Summary of Crop and Basic Assumption

No. Crop	Application Efficiency	Percolation Loss Code	Land prepartion Code	Pre-irrigation Code	Growing Stages
1 1 Paddy-nursery 2 2 Paddy 3 3 Pulses 4 4 Oliseeds 5 5 Wheat 6 6 Vegatables(Potatoes) 7 7 Forage crops	0.90 0.90 0.75 0.75 0.75 0.75	1 0 0 0 0	1 1 0 0 0 0	0 0 1 1 1 1	2 6 7 7 7 7 9

1.20 1.20 1.15
1.08 1.10 1.03 0.55 1.17 1.17 1.16 0.70 1.18 1.18 1.16 0.92 1.05 1.12 1.08 0.74 0.90 0.93 0.95 0.95 0.95

Remark; I growing stage = 15 days
RBI<-RAIN<RB2: EFFRI-AA1*RAIN-BBI
RBI= 0.00 RB2= 200.00 AA1=
Land preparation for paddy starts OSTAGE(S)

RB2<-RAIN : EFFR1-AA2*RAIN+BB2 0.79 BB1- 0.00 AA2-BEFORE TRANSPLANTING

0.22 BB2- 114.00

Summary of crop and basic assumption in Sataon Sub-Project Kharif Season

No. Crop	Cultiva.	Date of	Land Preparation
	Area(ha)	Water Issue	Period (stages)
1 1 Paddy-nursery 2 2 Paddy 3 3 Pulses 4 4 Ollseeds Total Project Area	3. 68. 22. 10. 100.	5/16 6/16 6/ 1 6/ 1	2 2 1 1

									· .			
Month	Jan	Feb	Mar	Apr	Нау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Potential ET (mm)	77.0	108.0	172.0	235.0	267.0	231.0	149.0	162.0	138.0	131.0	89.0	63.0
Conveyance Efficiency	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Return Flow Factor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

								U	nit:mm	
Code	1	2	3	4	5	6	7	8	9	10
Land Preparation	180.	0.	0.	0.	0.	0.	0.	0.	٥.	0.
Percoration Losses	60.	90.	0.	0.	0.	0.	0.	0.	0.	0.
Pre- irrigation	50.	60.	0.	0.	0.	0.	0.	0.	0.	0.

Rainfall Data for Sataon Sub-Project Kharif Season Rainfall for Sataon area (Maurawan Distributary Command)

												Unit:mm	
Year	Jan	Feb	Mar	Apr	May	Jun	Ju1	Aug	Sep	Oct	Ноч	Dec	Total
1981	7	7	16	16	16	74	381	207	278	1	3	5	1011
1982	42	έ,	íŏ	24	ĵŏ	45	192	315	227	2	. 2	. 7	861
1983	30	ő	ŏ	65	29	263	329	130	155	147	0 -	5	1153
1984	17	ğ	ă	13	0	87	250	203	198.	4.5	0	0 -	822
1985	33	Ó	ŏ	8	Ō	87	468	117	247	178	. 0	. 5	1143
1986	12	4 Š	ŏ	14	13	171	317	157	284	25	0	90	1132
1987	17	Ö	Ö	0	25	0	156	84	165	66	0	. 0	513
1988	ò	Ö	Ž	0	0	0	282	3.59	6	58	- 0	5	712
1989	Ž	0	0	0	6	268	186	121	125	15	0	2	730
1990	Ó	38	0	0	9	152	624	159	130	17	0	.0	1129
Áve.	16	10	1	14	9'	114	318	185	181	55	0	11	920

Table F.27 Irrigation Water Requirement and Diversion Requirement of Sataon Area (2/6)

Sample Intermediate Output in 198

Crop 1 1 Paddy-nursery 1 180. mm 2 180. mm 2 180. mm 3 180. mm 4 180. mm 5 180. mm 5 180. mm 6 180. mm 8 180. mm 8 180. mm 180

											Unit	: tom
Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0ct	Nov	Dec
Crop Coefficient		0.00					0.17				0,00	0.00
Potential ET Crop ET	77.0			235.0			24.8	162.0	138.0	131.0	89.0	63.0
Rainfall Effective Rainfall	7.0	7.0	16.0	16.0				207.0	278.0	1.0	3.0	5.0
Land Preparation	0.0	0.0	0.0	0.0	60.0	120.0	0.0	0.0	0.0	0.0	0.0	0.0
Percoration Loss Farm Water Req.	0.0	0.0	0.0		112,4	40.0 275.2	10.0 2.1	0.0	0.0	0.0	0.0	0.0
Overall Efficiency Diversion Water Req.	0.65	0.65	0.65		0.65 173.5	0.65 424.7	0.65 3.3	0.65	0.65	0.65	0.65	0.65

Sample Intermediate Output in 1981

Crop : 2 Paddy
Land Preparation Requirement : 180. mm
Percolation Losses : 60. mm
Pre-irrigation : 0. mm
Growing Stages : 6 stages
Date of Water Issue : 6/16

Unitimm Мау Jan Mar Apr Jun Jul Aug Sep Crop Coefficient
Potential ET
Crop ET
Rainfall
Effective Rainfall
Land Preparation
Percoration Loss
Farm Water Req.
Overall Efficiency
Diversion Water Req. Apr May Jun Jul Aug Sap

0.00 0.00 0.18 0.94 1.18 0.98
235.0 267.0 231.0 149.0 162.0 138.0
0.0 0.0 42.4 140.3 191.2 135.7
16.0 16.0 74.0 381.0 207.0 278.0
0.0 0.0 9.7 163.6 158.7 145.0
0.0 0.0 60.0 120.0 0.0 0.0
0.0 0.0 10.0 50.0 60.0 50.0
0.0 0.0 102.7 146.7 92.4 40.7
0.65 0.65 0.65 0.65 0.65 0.65
0.0 0.0 158.4 226.4 142.7 62.7 0.00 0.00 0.00 77.0 108.0 172.0 0.0 0.0 0.0 7.0 7.0 16.0 0.19 0.00 0.00 0.00 0.19 131.0 25.1 1.0 0.1 0.0 10.0 35.0 0.65

Sample Intermediate Output in 1981

Crop : 3 Pulses
Land Preparation Requirement : 0. mm
Percolation Losses : 0. mm
Pre-irrigation : 50. mm
Growing Stages : 7 stage
Date of Water Issue : 6/1

											Unit	: ma
I t e m	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0et	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pra-irrigation Percoration Loss Farm Water Req. Overall Efficiency Diversion Water Req.	0.00 77.0 0.0 7.0 0.0 0.0 0.0 0.0	108.0 7.0 0.0 0.0 0.0	0.00 172.0 0.0 16.0 0.0 0.0 0.0 0.0 0.54		267.0 0.9 16.0 0.0 0.0 0.0 0.0	231.0 63.5 74.0 38.8 50.0 0.0 74.7	0.77 149.0 114.7 381.0 246.3 0.0 0.0 0.54	174.6 207.0 157.1	138.0 73.5 278.0 119.2	0.00 131.0 0.0 1.0 0.0 0.0 0.0 0.0 0.54	0.00 89.0 0.0 3.0 0.0 0.0 0.0 0.54	0.00 63.0 0.0 5.0 0.0 0.0 0.0 0.54

Sample Intermediate Output in 1981

Crop : 4 Oilseeds
Land Preparation Requirement : 0. mm
Percolation Losses : 0. mm
Pre-irrigation : 50. mm
Growing Stages : 7 stages
Date of Water Issue : 6/1

I t e m

Crop Coefficient
Potential ET
Crop ET
Rainfall
Effective Rainfall Dec Mar Мау Jun Jul Sep Oct Nov Jan Apr 0.00 0.00 77.0 108.0 0.0 0.0 7.0 7.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.00 172.0 0.0 16.0 0.0 0.0 0.0 0.0 0.00 0.00 131.0 0.0 1.0 89.0 0.0 3.0 63.0 0.0 5.0 0.0 7.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.54 0.0 0.0 0.0 0.0 0.54 0.0 0.0 0.0 0.0 Pre-irrigation
Percoration Loss
Farm Water Req.
Overall Efficiency
Diversion Water Req. 0.0 122.2 0.0 0.0 0.0 0.0 0.0 0.0

Table F.27 Irrigation Water Requirement and Diversion Requirement of Sataon Area (3/6)

	-			** *							Unit	: mm
Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 Paddy-nursery 2 Paddy 3 Pulses 4 Oilseeds	0. 0. 0.	0. 0. 0.	0. 0. 0.	0. 0. 0.	173. 0. 0.	425. 158. 138. 122.	3. 226. 0. 0.	0. 143. 32. 52.	0. 63. 0. 0.	0, 54. 0. 0.	0. 0. 0.	0. 0. 0.

Sample Intermediate Output in 1981 Summary of Water Demand for Each Crop Diversion Water Requirement

•									4.00	-		
Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 Paddy-nursery 2 Paddy 3 Pulses 4 Oilseeds	0. 0. 0.	0. 0. 0.	0.	0. 0. 0.	0. 0. 0.	108. 30. 12.	0. 154. 0. 0.	97. 7. 5.	43. 0. 0.	0.	0. 0. 0.	0. 0.
Total	0.	0.	0.	0.	6.	165.	154.	109.	43.	37.	0.	0.

Diversion Water Requirement for Sataon Sub-Project Kharif Season (Total Area: 100. ha)

											Unit:x1000 m3				
Year	Jan	Feb	Mar	Apr	Нау	Jun	Jul	Aug	Sep	Oct	Nov	Dac	Total		
1981 1982 1983 1984 1985 1986 1987	0. 0. 0. 0.	0. 0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	6. 6. 6. 6.	165. 178. 99. 159. 159. 121. 200.	154. 196. 164. 179. 138. 166. 229.	109. 73. 202. 112. 219. 168. 261.	43. 52. 93. 59. 49. 42. 84. 235.	37. 37. 17. 31. 12. 33. 28.	0. 0. 0. 0.	0. 0. 0. 0.	513. 541. 580. 545. 582. 536. 807. 705.		
1988 1989 1990	0. 0. 	0. 0. 0.	0. 0. 	0. 0. 0.	6. 6.	200. 98. 130. 151.	201. 108.	214. 166. 158.	122. 117. 89.	35. 35. 29.	0. 0. 0.	0. 0. 0.	675. 560.		

Table F.27 Irrigation Water Requirement and Diversion Requirement of Sataon Area (4/6)

Summary of crop and basic assumption in Sataon Sub-Project Area Rabi Season

No. Crop			Land Preparation Period (stages)
5 5 Wheat 3 3 Pulses 4 4 Oilseeds 6 6 Vegatables(Potatoes) 7 7 Forage crops Total Project Area	68. 15. 5. 6. 100.	11/ 1 10/16 10/16 10/16 10/16	2 1 1 1

Sample Intermediate Output in	a	1981	
Crop		Wheat	
Land Preparation Requirement	t	0.	tom
Percolation Losses	1	٥.	mm
Pre-irrigation	1	50.	mm
Growing Stages	:	7	stages
Date of Water Issue	t	11/ 1	*

											OHIL	шш
Item	Jan	Feb	Mar	Apr	Мау	Jun	Ju1	Aug	Sep	Oct	Nov	Dec
Crop Coefficient	1.16						0.00					0.84
Potential ET Crop ET	77.0 89.6	96.1	26.4	0.0	0.0		0.0	0.0	0.0	0.0	22.8	63.0 52.7
Rainfall Effective Rainfall	7.0 5.1	7.0 4.4	16.0		16.0		381.0		278.0	1.0	3.0 1.0	5.0 3.4
Pre-irrigation Percoration Loss	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	33.3	16.7
Farm Water Req. Overall Efficiency	84.5	91.8 0.54		0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.2 0.54	65.9
Diversion Water Req.		169.9			0.0	0.0	0.0	ŏ.ŏ	0.0		102.2	

Sample Intermediate Output in	ı	1981	
Crop	:	3 Pulses	3
Land Preparation Requirement	:	0.	mm
Percolation Losses	:	0.	mm
Pre-irrigation	:	50.	ល់ល
Growing Stages	:	7	stages
Date of Water Issue	:	10/16	•

		•									Unit	: tam
I t e m	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient Potential ET	0.93 77.0	108.0		235.0	267.0	231.0	0.00	162.0	138.0	131.0	89.0	63.0
Crop ET Rainfall Effective Rainfall	71.4 7.0 4.8	14.9 7.0 0.7	0.0 16.0 0.0	16.0	16.0		0.0 381.0 0.0		278.0		43.4 3.0 2.1	63.9 5.0 3.3
Pre-irrigation Percoration Loss	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0	25.0 0.0 36.3	0.0	0.0 0.0 60.6
Farm Water Req. Overall Efficiency Diversion Water Req.	66.6 0.54 123.4	0.54	0.0 0.54 0.0	0.0 0.54 0.0	0.54	0.0 0.54 0.0	0.0 0.54 0.0	0.0 0.54 0.0	0.54 0.0	0.54	0.54 122.7	0.54

Table F.27 Irrigation Water Requirement and Diversion Requirement of Sataon Area (5/6)

Sample Intermediate Output in	1981
Crop	: 4 Oilseeds
Land Preparation Requirement	: 0. mm
Percolation Losses	: 0. mm
Pre-irrigation	: 50. mm
Growing Stages	: 7 stages
Date of Water Issue	: 10/16

I t e m Jan	Feb	Mar							. ~ ~ ~ ~ ~ ~		
T C O III			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient 1.05 Potential ET 77.0 Crop ET 80.7 Rainfall 7.0 Effective Rainfall 5.0 Pre-irrigation 0.0 Percoration Loss 7.7 Parm Water Req. 75.7 Overall Efficiency 0.54 Biversion Water Req. 140.2	0.8 0.0 0.0 18.1 0.54	172.0 0.0 16.0 0.0 0.0 0.0 0.0	235.0 0.0 16.0 0.0 0.0 0.0 0.0	267.0 0.0 16.0 0.0 0.0 0.0	231.0 0.0 74.0 0.0 0.0 0.0 0.0	149.0 0.0 381.0 0.0 0.0 0.0 0.0 0.54	162.0 0.0 207.0 0.0	138.0 0.0 278.0 0.0 0.0 0.0 0.0	6.6	89.0 53.0 3.0 2.2 25.0 0.0 75.8 0.54	63.0 72.9 5.0 3.5 0.0 0.0 69.4 0.54

Sample Intermediate Output in	1	1981						
Crop Land Preparation Requirement	: 6	Vegetables (Potatoes) 0. mm						
Percolation Losses Pre-irrigation	:	0. mm 50. mm						
Growing Stages Data of Water Issue	1	7 stages 10/16						

				and the	A	100			100	OUL	: : mim
Jan	Feb										
	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.53	1.03
77.4	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	46.9	
4.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.1	3.4
0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0 61.5
0.54	0.54	0.54	0.54	0.54	0.54						
	1.00 77.0 77.4 7.0 4.9 0.0 0.0 72.5 0.54	1.00 0.19 77.0 108.0 77.4 20.0 7.0 7.0 4.9 0.8 0.0 0.0 0.0 0.0 72.5 19.2 0.54 0.54	Jan Feb Mar 1.00 0.19 0.00 77.0 108.0 172.0 77.4 20.0 0.0 7.0 7.0 16.0 4.9 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 72.5 19.2 0.0	Jan Feb Mar Apr 1.00 0.19 0.00 0.00 77.0 108.0 172.0 235.0 77.4 20.0 0.0 0.0 7.0 7.0 16.0 16.0 4.9 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Jan Feb Mar Apr May 1.00 0.19 0.00 0.00 0.00 77.0 108.0 172.0 235.0 267.0 77.4 20.0 0.0 0.0 0.0 7.0 7.0 16.0 16.0 16.0 4.9 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 72.5 19.2 0.0 0.54 0.54 0.54 0.54 0.54 0.54 0.54	Jan Feb Mar Apr May Jun 1.00 0.19 0.00 0.00 0.00 0.00 77.0 108.0 172.0 235.0 267.0 231.0 77.4 20.0 0.0 0.0 0.0 0.0 0.0 7.0 7.0 16.0 16.0 16.0 16.0 74.0 4.9 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 72.5 19.2 0.0 0.0 0.54 0.54 0.54 0.54	Jan Feb Mar Apr May Jun Jul 1.00 0.19 0.00 0.00 0.00 0.00 0.00 0.00 77.0 108.0 172.0 235.0 267.0 231.0 149.0 77.4 20.0 0.0 0.0 0.0 0.0 0.0 7.0 7.0 16.0 16.0 16.0 74.0 381.0 4.9 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 <t< td=""><td>Jan Feb Mar Apr May Jun Jul Aug 1.00 0.19 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0</td><td>Jan Feb Mar Apr May Jun Jul Aug Sep 1.00 0.19 0.00 0.0</td><td>Jan Feb Mar Apr May Jun Jul Aug Sep Oct 1.00 0.19 0.00</td><td>Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov 1.00 0.19 0.00 0.0</td></t<>	Jan Feb Mar Apr May Jun Jul Aug 1.00 0.19 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Jan Feb Mar Apr May Jun Jul Aug Sep 1.00 0.19 0.00 0.0	Jan Feb Mar Apr May Jun Jul Aug Sep Oct 1.00 0.19 0.00	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov 1.00 0.19 0.00 0.0

Sample Intermediate Output is	n	1981	
Crop Land Preparation Requirement Percolation Losses Pre-irrigation Growing Stages Date of Water Issue	; 7 ; ;	Forage 0. 0. 50. 9	crops mm mm stages

											Unit	100
. I t e m	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall, Effective Rainfall Pre-irrigation Percoration Lose Farm Water Req. Overall Efficiency Diversion Water Req.	77.0 72.8 7.0 4.8 0.0 0.0 68.0 0.54	0.95 108.0 102.6 7.0 5.3 0.0 97.3 0.54 180.1	172.0	235.0 0.0 16.0 0.0 0.0 0.0 0.0	267.0 0.0 16.0	74.0 74.0 0.0 0.0 0.0	149.0 : 0.0 381.0 0.0	162.0 0.0 207.0	138.0 0.0 278.0	131.0 16.4 1.0 0.2 25.0 0.0 41.2 0.54	89.0 65.6 3.0 2.3 25.0 0.0 88.3	0.89 63.0 56.4 5.0 3.2 0.0 0.0 53.2 0.5 98.5

Table F.27 Irrigation Water Requirement and Diversion Requirement of Sataon Area (6/6)

									·		Unit	mm
Сгор	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0ct	Nov	Dec
5 Wheat 3 Pulses 4 Oilseeds 6 Vegetables(Potatoes) 7 Forage crops	156. 123. 140. 134. 126.	170. 26. 34. 36. 180.	46. 0. 0. 0. 72.	0. 0. 0. 0.	0. 0. 0.	0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 67. 58. 68. 76.	102. 123. 140. 129. 164.	122. 112. 129. 114. 98.

Sample Intermediate Output in 1981 Summary of Water Demand for Each Crop Diversion Water Requirement

												Unit:x1000 m3		
Crop	Jan	ľeb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
5 Wheat 3 Pulses 4 Oilseeds 6 Vegetables(Potatoes) 7 Forage crops	106. 19. 7. 8.	116. 4. 2. 2. 11.	32. 0. 0. 4.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 10. 3. 4. 5.	69. 18. 7. 8. 10.	83. 17. 6. 7. 6.		
Total	147.	134.	36.	. 0.	0.	0.	0.	0.	0.	22.	112.	119.		

Diversion Water Requirement for Sataon Sub-Project Area Rabi Season (Total Area : 100. ha)

	-											Unitio	c1000 m3
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1981	147.	134.	36.	0.	0.	0.	0.	0.	0.	22.	112.	119,	571.
1982	106	136.	38.	Ô.	0.	0.	0.	o.	0.	22.	113.	117.	531.
1983	120	141.	38.	. 0.	0.	0.	0.	0.	0.	11.	115.	119.	543.
1984	135.	132.	38.	o.	0.	0.	0.	0.	0.	18.	115.	125.	564.
1985	116.	141.	38.	0.	Ó.	0.	0.	0.	0.	9.	115.	119.	538.
1986	141.	100.	38.	0.	0.	Ó.	0.	0.	0.	20.	115.	27.	441.
1987	135	141.	38.	0.	0.	0.	0.	0.	0.	17.	115.	125.	571.
1988	157.	141.	37.	Ō.	Ŏ.	Ö.	0.	0.	0.	17.	115.	119.	586.
1989	147.	141.	38.	Ö.	Ö.	0.	0.	Ó.	0.	21.	115.	123.	584.
1990	157	108.	38.	ō.	0.	0.	0.	0.	0.	20.	115.	125.	564.
Ave.	136	131.	38.	0.	0.	0.	0.	0.	0.	18.	115.	112.	549.

Table F.28 Irrigation Water Requirement and Diversion Requirement of Sursa Area (1/6)

Input data of Sursa Area of Sharda Canal CAD Project Summary of Crop and Basic Assumption

No.		Сгор	Application Efficiency	Percolation Loss Code	Land prepartion Code .	Pre-irrigation Code	Growing Stages
~	7	Paddy-nursery	0.90	1	1	0	2
Ť			0.90	î	ī	ŏ	Ä
2	2	Paddy			1	Ÿ	ñ
3	3	Pulses	0.75	0	0	. 1	7
4		Oilseeds	0.75	0	0	1	7
5		Wheat	0.75	0	0	1	7
6	6	Vegetables(Potatoes)	0.75	0	. 0	1	7
7		Forage crops	0.75	0	0	1	9
8		Sugarcane	0.75	0	0	1	20

No.	Crop	Crop	Coefficient	(by growl	ng stage)	
3 4 5 6 7	1 Paddy-nursery 2 Paddy 3 Pulses 4 Oilseeds 5 Wheat 6 Vegetables(Potatoes) 7 Forage crops 8 Sugarcane	1.00 1.10 0.35 0.20 0.48 0.37 0.50 0.20 1.08	0.40 0.80 0.53 1.12 0.58 1.10 0.42 0.90 0.80 0.85	1.17 1.17 1.18 1.18 1.05 1.12		0.95 0.95 0.78 0.85 0.90 0.97 1.02 1.10

Remark; 1 growing stage = 15 days
RBI<-RAIN<RB2 : EFFRI-AA1*RAIN-BB1
RBI- 0.00 RB2- 200.00 AA1Land preparation for paddy starts OSTAGE(S)

RB2<-RAIN : EFFR1-AA2*RAIN+BB2
0.79 BB1- 0.00 AA2- 0.22
BEFORE TRANSPLANTING

0.22 BB2- 114.00

Summary of crop and basic assumption in Sursa Sub-Project Kharif Season

No.	Crop			Land Preparation Period (stages)
2	1 Paddy-nursery 2 Paddy 3 Pulses 4 Oilseeds 6 Sugarcane Total Project Area	3. 58. 22. 10. 10.	5/16 6/16 6/1 6/1 2/1	2 2 1 1 1

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oet	Nov	Dec
Potential ET (mm)	77.0	108.0	172.0	235.0	267.0	231.0	149.0	162.0	138.0	131.0	89.0	63.0
Conveyance Efficiency	0.72	0.72	0.72	0.72	0.72	0.72	0,.72	0.72	0.72	0.72	0.72	0.72
Return Flow Factor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

								ŧ	Initim	Đ
Code	1	2	3	4	5	6	7	8	9	10
Land Preparation	180.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Percoration Losses	60,	90.	0.	0.	0.	0.	0.	0.	0.	0.
Pre- irrigation	50,		0.		0.				0.	0.

Rainfall Data for Sursa Sub-Project Kharif Season Rainfall for Hardoi area (Badaicha Distributary Command)

٠									2			Unit	\$ to m
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1981	10	0		0	35	1	381	157	219	0	32	9	847
1982	48	22	ñ	2	0	82	173	266	144	Ō	0	Ö	737
1983	ő	70	ŏ	ō	ŏ	27	192	101	94	116	0	3	533
1984	ŏ	ŏ	õ	Ŏ.	Õ	79	189	150	78	2	0	2	500
1985	ğ	Ó	0	0	6	103	415	138	361	233	. 0	25	1290
1986	4	50	2	1	8	58	362	40	86	36	108	. 0	755
1987	8	11	1	0	46	31	71	102	95	68	. 0	0	433
1988	8	. 8	8	3	0	136	306	314	140	22	ง	22	967
1989	34	0	30	0	6	82	177	143	214	, ž	6	. 9	698
1990	0	23	2	0	5	. 7.	162	329	, 98	0			633
Ave	12	11	4	0	10	60	242	174	152	48	14	6	739

Table F.28 Irrigation Water Requirement and Diversion Requirement of Sursa Area (2/6)

Sample Intermediate Out	put in 1981
-------------------------	-------------

		,	0-44		
Crop		ř		-nursery	
Land Preparation Requirement	ŧ		180.	mm	
Percolation Losses	\$		60.	mm	
Pre-irrigation	2		0.	mm	
Growing Stages	ŧ		2	stages	
Date of Hates Joons			5/16		

				· · · · · · · · · · · · · · · · · · ·							Unit	क्षा विकास
I t e m	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient Potential ET	0.00		0.00	235.0		231.0		162.0	138.0	0.00	0.00	0.00
Crop ET Rainfall	10.0		3.0	0.0	35.0	1.0	24.8 381.0	157.0	219.0	0.0	32.0	9.0
Effective Rainfall Land Preparation	0.0	0.0 0.0	0.0	0.0 0.0 0.0	4.6 60.0 10.0	120.0		0.0	0.0	0.0 0.0	0.0	0.0
Percoration Loss Farm Water Req. Overall Efficiency	0.0	0.0	0.0	0.0	109.9		2.1	0.0	0.0	0.0	0.0	0.0
Diversion Water Req.	0.0	0.0	0.0		169.6		3.3	0.0	0.0	0.0	0.0	0.0

Sample Intermediate Output in	ı	1981	
Crop Land Preparation Requirement Percolation Losses Pre-irrigation Growing Stages		Paddy 180. 60.	mm mm mm stages
Growing prages	•		a cag co

											Unit	: (000
Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0et	Nov	Dec
Crop Coefficient Potential ET	0.00 77.0		172.0	235.0	267.0	231.0	149.0	162.0	0.98	131.0	0.00	0.00
Crop ET Rainfall Effactive Rainfall	0.0 10.0 0.0	0.0 0.0 0.0	0.0 3.0 0.0	0.0	35.0	1.0	140.3 381.0	157.0		25.1 0.0 0.0	0.0 32.0 0.0	0.0 9.0 0.0
Land Preparation Percoration Loss	0.0	0.0	0.0	0.0	0.0	60.0	120.0	0.0	0.0	0.0	0.0	0.0
Farm Water Req. Overall Efficiency	0.0	0.0			0.65	0.65	146.7 0.65	0.65		35.1 0.65	0.0	0.0
Diversion Water Req.	0.0	0.0	0.0	0.0	0.0	173.2	226.4	197.2	79.1	54.2	0.0	0.0

Sample Intermediate Output in	ı	1981	
Crop		B Pulse	8
Land Preparation Requirement	:	0.	mm
Percolation Losses	ı	0.	mm
Pre-irrigation		50.	tem
Growing Stages	t	7	stages
5		411	-0

											Unit	: tota
Item	Jan	Feb	Mar	Apr	May	Jun'	Jul	Aug	Sep	0ct	Nov	Dec
Crop Coefficient	0.00		0.00						0.53			0.00
Potential ET Crop ET	77.0	108.0	172.0				149.0			0.0	89.0	63.0
Rainfall	10.0	0.0	3.0		35.0		381.0			0.0	32.0	9.0
Effective Rainfall Pre-irrigation	0.0	0.0	0.0		0.0	50.0		0.0	0.0	0.0	0.0	0.0
Percoration Loss Farm Water Req.	0.0	0.0	0.0			0.0	0.0	0.0 53.7	0.0	0.0	0.0	0.0
Overall Efficiency	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Diversion Water Req.	0.0	0.0	0.0	0.0	0.0	209.0	0.0	99.5	0.0	0.0	0.0	0.0

Sample Intermediate Output in	1981	
Crop Land Preparation Requirement Percolation Losses Pre-irrigation Growing Stages	0:1se 0. 0. 50.	eds mm mm mm stages

											Unit	tom
Item	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req. Overall Efficiency Diversion Water Req.	0.00 77.0 0.0 10.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.00 172.0 0.0 3.0 0.0 0.0 0.0 0.0 0.54	0.0 0.0 0.0 0.0 0.0 0.0	0.0 35.0 0.0 0.0 0.0 0.0	231.0 53.7 1.0 0.6 50.0 0.0 103.1	146.8 381.0 265.8 0.0 0.0 0.0	162.0 189.1 157.0 123.9 0.0 0.0 65.3	138.0 88.3 219.0 100.6 0.0 0.0	0.00 131.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00 89.0 0.0 32.0 0.0 0.0 0.0	0.00 63.0 0.0 9.0 0.0 0.0 0.0 0.0

Table F.28 Irrigation Water Requirement and Diversion Requirement of Sursa Area (3/6)

Sample Intermediate Output in 1981

										• 1.	Unit	1 11111
I t e m	Jan	Feb	Mar	Apr	May	Jun	Ju1	Aug	Sep	0ct	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req. Overall Efficiency Diversion Water Req.	77.0 0.0 10.0 0.0 0.0 0.0 0.0	108.0 18.4 0.0 0.0 50.0 0.0 68.4 0.54	172.0 62.4 3.0 2.0 0.0 60.3 0.54	235.0 126.9 0.0 0.0 0.0 0.0 126.9 0.54	267.0 190.2 35.0 29.8 0.0 0.0 160.4 0.54	231.0 195.2 1.0	0.97 149.0 143.8 381.0 264.1 0.0 0.0 0.0	162.0 173.7 157.0 120.6 0.0 0.0 53.1 0.54	1.13 138.0 156.6 219.0 160.3 0.0 0.0 0.0	1.15 131.0 150.6 0.0 0.0 0.0 150.6 0.54	101.2 32.0 22.5 0.0	17.3 9.0 1.0 0.0 0.0 16.3 0.54

Sample Intermediate Output in 1981 Summary of Water Demand for Each Crop Unit Diversion Water Requirement

									· .		Unit	r mm
Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 Paddy-nursery 2 Paddy 3 Pulses 4 Oilsesds 8 Sugarcane	0. 0. 0.	0. 0. 0. 127.	0. 0. 0. 0.	0. 0. 0. 235.	170. 0. 0. 0. 297.	484. 173. 209. 191. 360.	3. 226. 0. 0.	0. 197. 100. 121. 98.	0. 79. 0. 0.	0. 54. 0. 0. 279.	0. 0. 0. 146.	0. 0. 0. 30.

Sample Intermediate Output in 1981 Summary of Water Demand for Each Crop Diversion Water Requirement

Unit:x1000 m3 C r o p

1 Paddy-nursery
2 Paddy
3 Pulses
4 Oilseeds
8 Sugarane Aug 0. 114. 22. 12. 10. Feb Mar Apr May Jun Jan 14. 100. 46. 19. 5. 0. 0. 0. 30. 0. 0. 0. 0. 0. 0. 0. 15. 0. 0. 0. 0. 0. 0. 0. 11. 131 0 0 46. 31. 0. 0. 0. ö. o. 0. 3. 28. 8 Sugarcane Total ٥.

Diversion Water Requirement for Sursa Sub-Project Kharif Season (Total Area : 100. hs)

•												Unitix	1000 E.
Year	Jan	Feb	Mar	Apr	Мау	Jun	Ju1	Aug	Sep	0ct	Nov	Dec	Total
1981 1982 1983 1984 1985 1986 1987	0. 0. 0. 0. 0.	13. 11. 13. 13. 13. 8. 12.	11. 12. 12. 12. 12. 11.	23. 23. 23. 23. 23. 23. 23. 23.	35. 40. 40. 39. 39. 33. 40.	216. 167. 199. 169. 155. 181. 197.	131. 184. 168. 171. 126. 135. 298.	230. 167. 182. 309. 229. 62.	46. 99. 147. 163. 23. 155. 146. 103.	59. 7. 50. 42. 53.	15. 19. 19. 19. 19. 6. 19.	3. 3. 3. 3.	710. 688. 885. 839. 602. 920. 1013.
1989 1990	0.	13.	8. 11.	23. 23.	39. 39.	167. 212.	181. 196.	176. 59.	47. 144.	58. 59.	18. 19.	3. 3.	733. 776.
Ave.	0.	12.	11.	23.	39.	180.	173.	164.	107.	48.	17.	3.	777

Table F.28 Irrigation Water Requirement and Diversion Requirement of Sursa Area (4/6)

Summary of crop and basic assumption in Sursa Sub-Project Area Rabi Season

No. Crop	Cultiva. Area(ha)		Land Preparation Period (stages)
5 5 Wheat 3 3 Pulses 4 4 Gilseeds 6 6 Vegetables(Potatoes)	58. 15. 5. 6.	11/.1 10/16 10/16 10/16	2 1 1
7 7 Forage crops 8 8 Sugarcane Total Project Area	6. 10. 100.	10/16 2/ 1	i i

Sample Intermediate Output in	n		1981	
Crop		5	Wheat	
Land Preparation Requirement	1		0.	mm
Percolation Losses	:		0.	mm
Pre-irrigation	:		50.	TO TO
Growing Stages Date of Water Issue	:		7	stages
Date of Water Issue	:		11/ 1	•

											Uni	: 7 mm
I t e m	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient Potential ET	1.16			0.00		0.00			0.00	0.00	0.26	0.84
Crop ET Rainfall	89.6 10.0	96.1 0.0	26.4 3.0	0.0	0.0 35.0	1.0	381.0			0.0	22.8 32.0	52.7 9.0
Effective Rainfall Pre-irrigation	7.2 0.0	0.0	0.3	0.0	0.0		0.0	0.0	0.0	0.0	9.4 33.3 0.0	16.7
Percoration Loss Farm Water Req. Overall Efficiency	0.0 82.4 0.54	0.0 96.1 0.54	0.0 26.1 0.54	0.0 0.0 0.54	46.8 0.54	0.0 63.4 0.54						
Diversion Water Req.		178.0		0.0	0.0		0.0	0.0	0.0	0.0		117.4

sambie infatmentare outloc in	•		1701	
Crop		3	Pulses	9
Land Preparation Requirement	:		0.	mm
Percolation Losses	:		0.	លាយ
Pre-irrigation	:		50.	mm
Growing Stages_	ŧ		7	stages
Date of Water Issue	:		10/16	•

											OHIL	L + WW
Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient	0.93	0.14					0.00			0.09	0.49	1.02
Potential ET Crop ET	77.0	108.0	172.0	235.0	267.0					131.0	89.0 43.4	63.0 63.9
Rainfall	10.0	0.0	3.0	0.0	35.0	1.0	381.0	157.0	219.0	0.0	32.0	9.0
Effective Rainfall Pre-irrigation	6.7 0.0	0.0	0.0	0.0	0.0	*0.0	0.0	0.0	0.0	25.0	., 19.9 25.0	0.0
Perconation Loss	0.0 64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 36.5	0.0 48.4	0.0 58.1
Parm Water Req. Overall Efficiency	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Diversion Water Req.	119.9	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5 	89.7	107.6

Sample Intermediate Output in	ì		1981	
Crop Land Preparation Requirement Percolation Losses Pre-irrigation Growing Stages Data of Water Issue		4	0:1sec 0. 0. 50. 7	eds nom nom nom stages

					-	-					Unit	t mm
Item	Jan	Feb	Mar	Apr	May	Jun	Jul.	Aug	Sep	Oct	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req Overall Efficiency Diversion Water Req.	1.05 77.0 80.7 10.0 7.0 0.0 0.0 73.7 0.54 136.5	108.0 18.9 0.0	0.00 172.0 0.0 3.0 0.0 0.0 0.0 0.54	0.0 0.0 0.0 0.0	267.0	231.0	149.0		138.0	131.0 6.6 0.0 0.0 25.0 0.0 31.5 0.54	53.0 32.0 20.8 25.0 0.0 57.2	1.16 63.0 72.9 9.0 6.1 0.0 0.0 66.8 0.54 123.8
~_~~~~~~~~~												~~

Table F.28 Irrigation Water Requirement and Diversion Requirement of Sursa Area (5/6)

Sample Intermediate Output in	1		1981
Crop Land Preparation Requirement Percolation Losses Pre-irrigation Growing Stages Date of Water Issue	:::::::::::::::::::::::::::::::::::::::	6	Vegetables (Potatoes) 0. mm 0. mm 50. mm 50. mm 7 stages 10/16

				8.5							Unit	tmm
Itam	Jan	Feb	Mar	Apr	May -	Jun	Jul	Aug	Sep	-Oct	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req.	1.00 77.0 77.4 10.0 6.9 0.0 70.5	20.0 0.0 0.0 0.0 0.0 20.0	172.0 0.0 3.0 0.0 0.0 0.0	0.00 235.0 0.0 0.0 0.0 0.0	0.00 267.0 0.0 35.0 0.0 0.0	0.00 231.0 0.0 1.0 0.0 0.0 0.0	0.00 149.0 0.0 381.0 0.0 0.0	0.00 162.0 0.0 157.0 0.0 0.0 0.0	0.00 138.0 0.0 219.0 0.0 0.0 0.0	131.0 12.1 0.0 0.0 25.0	0.53 89.0 46.9 32.0 20.3 25.0 0.0 51.7	1.03 63.0 64.9 9.0 5.9 0.0 0.0 59.0
Overall Efficiency Diversion Water Req.				0.0						68.7		109.3

Sample Intermediate Output in	n		1981	
Crop	ŧ	7	Forage	crops
Land Preparation Requirement	1		0.	mm
Percolation Losses	:		0.	បាន
Pre-irrigation	:		50.	m o n .
Growing Stages	:			stages
Date of Water Issue	:		10/16	-

											Unit	t : 0 10
Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sap	Oct	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req.	77.0 72.8 10.0 6.7 0.0 0.0 66.0	108.0 102.6 0.0 0.0 0.0 0.0 102.6	172.0 40.8 3.0 0.4 0.0 40.4	0.0 0.0 0.0 0.0	267.0 0.0 35.0 0.0 0.0 0.0	231.0 0.0 1.0 0.0 0.0 0.0	149.0 0.0 381.0 0.0 0.0 0.0	162.0 0.0 157.0 0.0 0.0 0.0	138.0 0.0 219.0 0.0 0.0 0.0	131.0 16.4 0.0 0.0 25.0 0.0	89.0 65.6 32.0 21.8 25.0 0.0 68.9	0.89 63.0 56.4 9.0 5.6 0.0 0.0 50.8
Overall Efficiency Diversion Water Req.		0.54 190.0			0.54			0.0	0.0		127.5	94.0

Sample Intermediate Output in	1	1981	7
Crop Land Preparation Requirement Percolation Losses Pre-irrigation Growing Stages Date of Water Leene		Sugare 0. 0. 50. 20	cane mm mm mm stages

I t e m Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Crop Coefficient 0.00 0.17 0.36 0.54 0.71 0.85 0.97 1.07 1.13 1.15 1.14 0.28 Potential ET 77.0 108.0 172.0 235.0 267.0 231.0 149.0 162.0 138.0 131.0 89.0 63.0 Crop ET 0.0 18.4 62.4 126.9 190.2 195.2 143.8 173.7 156.6 150.6 101.2 17.3 Rainfall 10.0 0.0 3.0 0.0 35.0 1.0 381.0 157.0 219.0 0.0 32.0 9.0 Briffective Rainfall 0.0 0.0 2.0 0.0 29.8 1.0 264.1 120.6 160.3 0.0 22.5 1.0 Pra-irrigation 0.0 50.0 0.0 0.0												Unit	: mm	
Potential ET 77.0 108.0 172.0 235.0 267.0 231.0 149.0 162.0 138.0 131.0 89.0 63.0 Crop ET 0.0 18.4 62.4 126.9 190.2 195.2 143.8 173.7 156.6 150.6 101.2 17.3 Rainfall 10.0 0.0 3.0 0.0 35.0 1.0 381.0 157.0 219.0 0.0 32.0 9.0 Effective Rainfall 0.0 0.0 2.0 0.0 29.8 1.0 264.1 120.6 160.3 0.0 22.5 1.0 Percoration Loss 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	I t e m	Jan	Peb	Mar	Apr	May	Jun	Ju1	Aug	Sep	Oct	Nov	Dec	
	Potential ET Crop ET Rainfall Effective Rainfall Pra-irrigation Percoration Loss Farm Water Req. Overall Efficiency	77.0 0.0 10.0 0.0 0.0 0.0 0.0	108.0 18.4 0.0 0.0 50.0 0.0 68.4 0.54	172.0 62.4 3.0 2.0 0.0 0.0 60.3 0.54	235.0 126.9 0.0 0.0 0.0 0.0 126.9 0.54	267.0 190.2 35.0 29.8 0.0 0.0 160.4	231.0 195.2 1.0 1.0 0.0 0.0 194.2 0.54	149.0 143.8 381.0 264.1 0.0 0.0 0.0	162.0 173.7 157.0 120.6 0.0 0.0 53.1 0.54	138.0 156.6 219.0 160.3 0.0 0.0 0.0 0.54	131.0 150.6 0.0 0.0 0.0 0.0 150.6 0.54	89.0 101.2 32.0 22.5 0.0 0.0 78.7 0.54	63.0 17.3 9.0 1.0 0.0 16.3 0.54	

Table F.28 Irrigation Water Requirement and Diversion Requirement of Sursa Area (6/6)

											Unit	: ma
Стор	Jan	Peb	Mar	Apr	May	Jun	Jul	Aug	Sap	Oct	Хоч	Dec
5 Wheat 3 Pulses 4 Oilseeds 6 Vegetables(Potatoes) 7 Forage crops 8 Sugarcane	153. 120. 136. 131. 122.	178. 27. 35. 37. 190. 127.	48. 0. 0. 0. 75.	0. 0. 0. 0. 0. 235.	0. 0. 0. 0. 0. 297.	0. 0. 0. 0. 360.	0. 0. 0. 0.	0. 0. 0. 0. 98.	0. 0. 0. 0.	0. 68. 58. 69. 77. 279.	87. 90. 106. 96. 128. 146.	117. 108. 124. 109. 94. 30.

Sample Intermediate Output in 1981 Summary of Water Demand for Each Crop Diversion Water Requirement

										Uı	iltixl(000 m3
Скор	Jan	Fab	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dac
5 Wheat 3 Pulses 4 Gilseede 6 Vegetables(Potatoes) 7 Forage crops 8 Sugarcane	88. 18. 7. 8. 7. 0.	103. 4. 2. 2. 11.	28. 0. 0. 0. 4.	0. 0. 0. 0. 0. 23.	0. 0. 0. 0. 30.	0. 0. 0. 0. 36.	0. 0. 0. 0.	0. 0. 0. 0. 10.	0. 0. 0. 0.	0. 10. 3. 4. 5. 28.	50. 13. 5. 6. 8.	68. 16. 6. 7. 6. 3.
Total	128.	135.	44.	23.	30.	36.	0.	10.	0.	50.	97.	106.

Diversion Water Requirement for Sursa Sub-Project Area Rabi Season (Total Area : 100. ha)

												Unitio	c1000 m3
Year	Jan	Peb	Mar	Apr	May	Jun	Jul	Aug	Ѕвр	Oct	Nov	Dec	Total
1981 1982 1983 1984 1985 1986 1987 1988 1989	128. 88. 140. 130. 135. 131. 131.	135. 117. 135. 135. 135. 126. 128. 135.	44. 44. 44. 44. 44. 43. 38.	23. 23. 23. 23. 23. 23. 23. 23. 23.	30, 35, 35, 34, 34, 28, 35,	31. 16. 24.	0. 4. 1. 0. 0. 17. 0.	10. 0. 17. 11. 12. 26. 17. 0. 12.	0. 9. 16. 18. 0. 17. 16.	50. 50. 25. 49. 6. 42. 35. 45,	97. 123. 123. 123. 123. 40. 123. 123.	106. 116. 112. 113. 89. 116. 116.	659. 633. 706. 719. 618. 598. 707. 646.
1990 Ava.	140.	116.	44. 43.	23. 23.	34. 34.	35. 27.	5. 3.	11.	15.	50. 40.	123.	108.	694.

Table F.29 Irrigation Water Requirement and Diversion Requirement of Purwa Area (1/6)

Input data of Purwa Area of Sharda Canal CAD Project Summary of Crop and Basic Assumption

No. Crop	Application	Percolation Land	prepartion	Pre-irrigation	Growing
	Efficiency	Loss Code	Code	Code	Stages
1 1 Paddy-nursery 2 2 Paddy 3 3 Pulses 4 4 Oilseeds 5 5 Wheat 6 6 Vegetables(Potatoes) 7 7 Forage crops	0.90 0.90 0.75 0.75 0.75 0.75 0.75	1 1 0 0 0 0	1 0 0 0 0	0 0 1 1 1 1	2 6 7 7 7 7 9

No.	Сгор	Crop	Coefficient	(by growing s	cage)
2 3 4 5 6	1 Paddy-nursery 2 Paddy 3 Pulses 4 Oilseeds 5 Wheat 6 Vegetables(Potatoes) 7 Forage crops	1.10 0.35 0.20 0.48 0.37	0.40 0.80 0.53 1.12 0.58 1.10 0.42 0.90	1.05 1.12 1.08	0.55 0.70 0.92

Remark; 1 growing stage = 15 days
RBI<=RAIN<RB2 : EFFR1-AA1*RAIN-BB1
RBI= 0.00 RB2- 200.00 AA1=
Land preparation for paddy starts OSTAGE(S)

RB2<-RAIN : EFFR1-AA2*RAIN+BB2
AA1- 0.79 BB1- 0.00 AA2E(S) BEFORE TRANSPLANTING

0.22 BB2- 114.00

Summary of crop and basic assumption in Purwa Sub-Project Kharif Season

No. Crop	Cultiva. Area(ha)		Land Preparation Period (stages)
1 1 Paddy-nursery 2 2 Paddy 3 3 Pulses 4 4 Oilseeds Total Project Area	3.	5/16	2
	68.	6/16	2
	22.	6/ 1	1
	10.	6/ 1	1

Month	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Potential ET (mm)	77.0	108.0	172.0	235.0	267.0	231.0	149.0	162.0	138.0	131.0	89.0	63.0
Conveyance Efficiency	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Return Flow Factor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

								u	nit:ma	١
Code	ı	2	3	4	5	6	7	8	9	10
Land Preparation	180.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Percoration Losses	60.	90.	0.	0.	0.	0.	0.	0.	0.	0.
Pre- irrigation	50.	60.	0.	0.	0.	0.	0.	. 0.	0.	0.

Rainfall Data for Purwa Sub-Project Kharif Season Rainfall for Purwa area (Related Distributary Commands in Purwa)

												Uni	t mm
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1981	8	0	15	0	3	41	429	139	333	0	12	2	982
1982	-31	17	10	ŏ	ŏ	34	165	273	291	Q	30	12	853
1983	36	ó	ŏ	. 18	42	101	247	118	200	48	0	0	810
1984	ő	ŏ	ŏ	ō	ō	76	233	253	193	27	Ó	0	782
1985	ŏ	ŏ	ŏ	Ŏ	Ō	Ŏ	377	76	609	366	0	0	1428
1986	ŏ	12	ŏ	ň	Š	66	154	206	41	4	. 0	13	501
1987	11	15	ŏ	ŏ	4	ő	38	61	82	70	. 0	3	274
1988	38	ő	13	ŏ	Ó	ě.	420	375	8	34	Ō	7	903
1989	32	ğ	- 6	ŏ	ž	68	185	170	344	- 8	11	0	835
1990	ő	52	ŏ	ŏ	2 i	43	337	241	53	ŏ	Ő	8	755
Ave.	15	9	3	1	7	43	258	191	215	55	5	4	817

Table F.29 Irrigation Water Requirement and Diversion Requirement of Purwa Area (2/6)

Sample Intermediate Output in 1981

Crop : 1 Paddy-nursery
Land Preparation Requirement : 180. mm
Percolation Losses : 60. mm
Pre-irrigation : 0. mm
Crowing Stages : 2 stages
Date of Water Issue : 5/16

•											Unit	: mm
Item	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Land Preparation Percoration Loss Farm Water Req. Overall Efficiency	0.00 77.0 0.0 8.0 0.0 0.0 0.0 0.0	108.0 0.0 0.0 0.0 0.0 0.0 0.0	172.0 0.0 15.0 0.0 0.0 0.0 0.0	235.0 0.0 0.0 0.0 0.0 0.0 0.0 0.65	267.0 44.5 3.0 0.4 60.0 10.0 114.1 0.65	154.0 41.0 21.5 120.0 40.0 292.5 0.65	149.0 24.8 429.0 34.4 0.0 10.0 0.4	162.0 0.0 139.0 0.0 0.0	138.0 0.0 333.0 0.0 0.0 0.0	131.0	0.00 89.0 0.0 12.0 0.0 0.0 0.0 0.0	0.00 63.0 0.0 2.0 0.0 0.0 0.0 0.0
Diversion Water Req.	0.0	0.0	0.0		176.1	42164	V.O			.		

Sample Intermediate Output in 1981

Crop
Land Preparation Requirement 1 180. mm
Percolation Losses 2 60. mm
Pre-irrigation 2 0. mm
Growing Stages 4 6 stages
Date of Water Issue 1 6/16

											Unit	: tom
Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crop Coefficient	0.00			0.00					0.98		0.00	0.00
Potential ET Crop ET	77.0	0.0	0.0	0.0	0.0	42.4	140.3	191.2		25.1	0.0	0.0
Rainfall Effective Rainfall	8.0 0.0	0.0	15.0	0.0	0.0	5.4	172.2	109.3	333.0 154.9	0.0	0.0	0.0
Land Preparation Percoration Loss	0.0	0.0	0.0	0.0		10.0	120.0		50.0	10.0	0.0	0.0
Farm Water Req. Overall Efficiency	0.65	0.65	0.0		0.65	107.0 0.65	0,65	0.65		35.1 0.65	0.0	0.0
Diversion Water Req.	0.0	0.0	0.0	0.0	0.0	165.1	213.1	219.0	47.5	54.2	0.0.	0.0

Sample Intermediate Output in 1981

Crop : 3 Pulses
Land Preparation Requirement : 0. mm
Percolation Losses : 0. mm
Pre-irrigation : 50. mm
Growing Stages : 7 stages
Date of Water Issue : 6/1

											Unit	: mm
Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Йоч	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Reinfall Pre-irrigation Percoration Loss Farm Water Req. Overall Efficiency Diversion Water Req.	0.00 77.0 0.0 8.0 0.0 0.0 0.0	108.0 0.0 0.0 0.0 0.0 0.0 0.0	172.0 0.0 15.0 0.0 0.0 0.0		267.0 0.0 3.0 0.0 0.0 0.0 0.0 0.54	231.0 63.5 41.0 22.1 50.0 0.0 91.4	149.0 114.7 429.0 275.7 0.0 0.0 0.0 0.54	162.0 174.6 139.0 107.6 0.0 0.0 66.9	0.0 0.0 0.54	0.0 0.0	0.00 89.0 0.0 12.0 0.0 0.0 0.0 0.0	0.00 63.0 0.0 2.0 0.0 0.0 0.0 0.0 0.0

Sample Intermediate Output in 1981

Crop : 4 Oilseeds
Land Preparation Requirement : 0. mm
Percolation Losses : 0. mm
Pre-irrigation : 50. mm
Growing Stages : 7 stages
Date of Water Issue : 6/ 1

I t e m

Crop Coefficient
Potential ET
Crop ET Нау Mar Jun Aug Feb Jan Apr 0.00 0.0 12.0 0.0 0.0 0.0 0.0 0.54 Potential BI
Crop ET
Rainfall
Effective Rainfall
Pre-irrigation
Percoration Loss
Farm Water Req.
Overall Efficiency 0.0 0.0 0.0 0.0 0.0 0.54 0.0 0.0 0.0 0.0 0.0 0.54 0.54 0.54 0.0 Diversion Water Req.

Table F.29 Irrigation Water Requirement and Diversion Requirement of Purwa Area (3/6)

									1.5		Unit	mm
Сгор	Jan	Feb	Mar	Apr	May	Jun	Ju1	Àug	Sep	Oct	Nov	Dec
1 Paddy-nursery 2 Paddy 3 Pulses 4 Oilseeds	0. 0. 0.	0. 0. 0.	0. 0. 0.	0. 0. 0.	176. 0. 0. 0.	451. 165. 169. 152.	213. 0. 0.	0. 219. 124. 146.	0. 47. 0. 0.	0. 54. 0.	0. 0. 0.	0. 0. 0.

Sample Intermediate Output in 1981 Summary of Water Demand for Each Crop Diversion Water Requirement

										٠.	ILC VAL	oo ms
Стор	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	уол	Dec
1 Paddy-nursery 2 Paddy 3 Pulses 4 Oilseeds	0. 0. 0.	0. 0. 0.	0. 0. 0.	0. 0. 0.	6. 0. 0.			27.		0;; 37, 0,	0. 0. 0.	0. 0. 0.
Total	ō.	0.	ō.	0.	6.	180.	145.	191.	32.	37.	Q.	0.

Diversion Water Requirement for Purwa Sub-Project Kharif Season (Total Area : 100. ha)

											Unite	k1000 m3	
Year	Jan	Pab	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1981 1982 1983	0.	0. 0. 0.	0. 0. 0.	0. 0.	6. 6.	180. 183. 153.	145. 219. 180.	191. 82. 217.	32. 40. 57.	37. 37. 30.	0. 0. 0.	0. 0. 0	591. 568. 643.
1984 1985	0. 0.	0. 0.	0. 0.	0. 0.	6. 6.	164. 200.	182. 155.	87. 271.	62. 0.	33. 3.	0. 0.	0. 0.	534. 635.
1986 1987 1988	0. 0. 0.	0. 0. 0.	0. 0. 0.	0. 0. 0.	6. 6.	168. 200. 196.	231. 358. 147.	110. 290. 59.	201. 162. 233.	36. 27. 32.	0. 0. 0.	0. 0. 0.	753. 1044. 673.
1989 1990	0.	0.	0. 0.	0. 0.	6. 6.	168. 179.	201. 162.	152. 90.	30. 190.	36. 37.	0.	0.	593. 664.
Ave.	0.	0.	0.	0.	6.	179.	198.	155.	101.	31.	0.	0.	670.

Table F.29 Irrigation Water Requirement and Diversion Requirement of Purwa Area (4/6)

Summary of crop and basic assumption in Purwa Sub-Project Area Rabi Season

No. Crop	Cultiva.	Date of	Land Preparation
	Area(ha)	Water Issue	Period (stages)
5 5 Wheat 3 3 Pulses 4 4 Oilseeds 6 6 Vegetables(Potatoes) 7 7 Forage crops Total Project Area	68. 15. 5. 6. 100.	11/ 1 10/16 10/16 10/16 10/16	2 1 1 1

Sample Intermediate Output in	ì	1981	
Crop Land Preparation Requirement Percolation Losses Pre-irrigation		Wheat 0. 0. 50.	mm mm mm stages
Growing Stages Date of Water Issue	•	11/ 1	000000

											Unit	t 1 mm
Item	Jaņ	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	0ct	Nov	Dec
Crop Coefficient Potential ET	1.16	0.89	0.15	0.00		0.00		0.00		0.00	0.26	0.84
Crop ET Rainfall	89.6	96.1	26.4 15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.8 12.0	52.7
Effective Rainfall Pre-irrigation	5.8 0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	1.4
Percoration Loss	0.0	96.1	0.0 25,2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 52.5	0.0 67.9
Overall Efficiency Diversion Water Req.	0.54 155.1	0.54 178.0	0.54 46.6	0.54 0.0	0.54	0.54	0.54	0.54 0.0	0.54 0.0	0.54	0.54 97.2	0.54 125.8

Sample Intermediate Output in	ı		1981	
Crop Land Preparation Requirement Percolation Losses Pre-irrigation Growing Stages Date of Water Issue		3	Pulses 0. 0. 50. 7	mm mm mm mm stages
Doto of Water Trave			10/16	

•											Unit	: mm
I t e m	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sap	Oct	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req. Overall Efficiency	0.93 77.0 71.4 8.0 5.4 0.0 0.0 66.0	0.14 108.0 14.9 0.0 0.0 0.0 0.0 14.9	172.0 0.0 15.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0		0.00 231.0 0.0 41.0 0.0 0.0 0.0 0.0	149.0	162.0	138.0	11.5 0.0 0.0 25.0 0.0 36.5 0.54	0.0 60.5	1.02 63.0 63.9 2.0 1.4 0.0 62.5
Diversion Water Req.	122.2	27.5	0.0	0.0	0.0							113.0

Table F.29 Irrigation Water Requirement and Diversion Requirement of Purwa Area (5/6)

Sample Intermediate Output in	ı	1981	
Crop Land Preparation Requirement Percolation Losses Pre-irrigation Growing Stages Date of Water Issue		0:1see 0. 0. 50. 7	eds mm mm mm atages

											Unit	: mm
I t e m	Jan	Feb	Mar	Apr	May	Jun	Jul.	Aug	Sep	Oct	Nov	Dac
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req. Overall Efficiency Diversion Water Req.	80.7 8.0 5.6 0.0 0.0 75.0 0.54	0.17 108.0 18.9 0.0 0.0 0.0 0.0 18.9 0.54 35.0	0.0 15.0 0.0	0.00 235.0 0.0 0.0 0.0 0.0 0.0 0.0 0.54	267.0	231.0 0.0 41.0 0.0 0.0 0.0	149.0 0.0 429.0 0.0 0.0 0.0 0.54	162.0 0.0 139.0 0.0 0.0	333.0	131.0 6.6 0.0 0.0 25.0 0.0 31.5 0.54	89.0 53.0 12.0 8.2 25.0 0.0 69.8	63.0 72.9 2.0 1.5 0.0 0.0 71.5 0.54

Sample Intermediate Output in	1981
Crop Land Preparation Requirement: Percolation Losses Pre-irrigation Growing Stages Date of Water Issue	Vegetables (Potatoes) 0. mm 0. mm 50. mm 7 stages

						2					Unit	: t mm
Item	Jan	Feb	Mar	Apr	Мау	Jun	Ju1	Aug	Sep	0e t	Nov	Dec
Crop Coefficient Potential ET Crop ET Rainfall Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req. Overall Efficiency Diversion Water Req.	1.00 77.0 77.4 8.0 5.6 0.0 71.8 0.54	108.0 20.0 0.0 0.0 0.0 0.0 20.0 0.54	172.0 0.0 15.0 0.0 0.0 0.0 0.0 0.54	235.0 0.0 0.0 0.0 0.0 0.0 0.0	267.0 0.0 3.0 0.0 0.0 0.0 0.0 0.54	231.0 0.0 41.0 0.0 0.0 0.0	149.0 0.0 429.0 0.0 0.0 0.0 0.54	162.0 0.0 139.0 0.0	333.0 0.0 0.0 0.0 0.0 0.54	131.0 12.1 0.0 0.0 25.0 0.0 37.1 0.54	46.9 12.0 8.0 25.0 0.0 64.0	0.54

Sample Intermediate Output i	n 1981
Crop Land Preparation Requirement Parcolation Losses Pre-irrigation Growing Stages Date of Water Issue	: 7 Forage crops : 0. mm : 0. mm : 50. wm : 9 stages : 10/16

		٠.		٠. `							Unl	t tou
I t e m	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dac
Crop Coefficient Potential ET Crop ET Rainfell Effective Rainfall Pre-irrigation Percoration Loss Farm Water Req. Overall Efficiency Diversion Water Req.	72.8 8.0 5.4 0.0 67.3 0.54	0.95 108.0 102.6 0.0 0.0 0.0 102.6 0.54 190.0	172.0 40.8 15.0 2.1 0.0 0.0 38.8 0.54		3.0 0.0 0.0 0.0 0.0	231.0 0.0 41.0 0.0 0.0 0.0 0.0 0.54	149.0 0.0 429.0 0.0 0.0 0.0 0.0	162.0 0.0 139.0 0.0 0.0	138.0	131.0 16.4 0.0 0.0 25.0 0.0 41.4 0.54	89.0 65.6 12.0 8.6 25.0 0.0 82.1	63.0 56.4 2.0 1.3 0.0 0.0 55.0 0.54

Table F.29 Irrigation Water Requirement and Diversion Requirement of Purwa Area (6/6)

											Uniti	; mm
Crop	Jan	Feb	Mar	Арг	Мау	Jun	Jul	Aug	Sap	Oct	Nov	Dec
5 Wheat 3 Pulses 4 Ollseeds 6 Yegetables(Potatoes) 7 Forage crops	155. 122. 139. 133. 125.	178. 27. 35. 37. 190.	47. 0. 0. 0. 12.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 68. 58. 69. 77.	129. 118. 152.	126. 116. 132. 118. 102.

Sample Intermediate Output in 1981 Summary of Water Demand for Each Crop Diversion Water Requirement

										U	Unit:x1000 m3		
Стор	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
5 Wheat 3 Pulses 4 Oilseeds 6 Vegetables(Potatoes) 7 Forage crops	105. 18. 7. 8. 7.	121. 4. 2. 2. 11.	32. 0. 0. 0. 4.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0. 10. 3. 4. 5.	66. 17. 6. 7. 9.	86. 17. 7. 7. 6.	
Total	146.	141.	36.	0.	0.	õ.	0.	0.	0.	22.	106.	123.	

Diversion Water Requirement for Purwa Sub-Project Area Rabi Season (Total Area : 100. ha)

												Unitio	:1000 m3
Year	Jan	Feb	Mar	Apr	May	Jun	Jul.	Aug	Sep	Oct	Nov	Dec	Total
1981 1982 1983 1984 1985 1986 1987	146. 119. 113. 157. 157. 157. 142.	141. 126. 141. 141. 141. 130.	36. 38. 38. 38. 38. 38.	0. 0. 0. 0.	0. 0. 0. 0. 0.	0. 0. 0. 0. 0.	0. 0. 0. 0. 0.	0. 0. 0. 0. 0.	0. 0. 0. 0.	22. 22. 18. 20. 0. 21. 17.	106. 93. 115. 115. 115. 115.	123. 111. 125. 125. 125. 110. 121.	573. 507. 550. 595. 575. 570. 569.
1989 1990 Ave.	117.	132. 97. 132.	37. 38.	0. 0.	0. 0.	0. 0. 	0. 0. 	0. 0.	ŏ. o. 	21. 22.	106. 115.	125. 115.	540. 544. 556.

Table F.30 Comparison of Seasonal Scheduled Discharge and Actual Discharge (1/2)

(1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	Kharif C	ropping						Rabi Cro	pping		-		
		Water sur	pply		Waterin				Water su			Watering	
Year	Roster	Actual	Rate	Roster	Actual	Rate	Year	Roster	Actual		Roster	Actual	
www.cometestaturane	(MCM)	(MCM)	(%)	Nos.	Nos.	(%)		(MCM)	(MCM)	(%)	Nos.	Nos.	(%)
Sharda Int	ake												
1990		4,102	90	27	27	100	1989/90	2,774	3,021	109	25	25	100
1989		4,170	96	27	27	100	1988/89		2,986	_	_	25	
1988		4,545		_ ~,			1987/88		2,599	_	-	_	•
1987				_	_	_	1986/87	-	3,358	_	_	_	
1986		4,399		_	_	_	1985/86						
1900	· •	4,333	·										
Hardoi Br													
at Head								**			-		
1990	2,211	2,172	98	24	27	113	1989/90	1,490	1,580	106	25	25	100
1989		2,168	99	24	25	104	1988/89	_	1,582	_ `	-	. 25	-
1988		2,444	-	_		_	1987/88	-	1.488	_		-	-
1987		2,366	_	_	_	-	1986/87	-	1.673	_	-	_	
1986		2 242	_	-		-	1985/86	-		-	-	-	
1980	. -	LILTE		-			1,00,00						
. 101.	· · · .	·					,			÷			
at 13 mls	0.056	4.000	101		22	112	1000,000	1,401	1,528	109	19	24	126
1990		2,090	101	24		113	1989/90	1,401	1,475	741	21	22	
1989		2,004	96	23	25	109	1988/89				ZI	2.2	-
1988		2,121	-	-	-	-	1987/88	-	1,248	-	•	-	-
1987		2,153	-	-	-	-	1986/87	-	1,466	-	٠	-	-
1986	•	1,893	-	-	-	-	1985/86	-	•	-	-	-	-
									٠				
at 53 mls													
1990	1,741	1,676	96	24	27	113	1989/90	1,136	1,209	106	19	23	121
1989		1,565	85	23	. 25	109	1988/89	1,170	1,175	100	15	22	147
1988		1,734	_	-	-		1987/88	-	1,026	-	•	-	-
1987		1,803	-	_	-	-	1986/87		1,328		-	•	-
1986		1,682	-	-	-	-	1985/86	-	•	•	-	-	-
at 99 mls	-	1	-										
1990	676		-	-	24	-	1989/90	452	. -	, -	17		-
1989		656	98	22	27	123	1988/89	436	469	108	15	21	140
1988		646	-	•	_		1987/88	•	399	-	-	-	_
1987		639	-	_	_	_	1986/87	-	548	-	_	-	-
1986		664	· -	-	-	-	1985/86	-	-	-		-	-
at end							- 000 500		0.50			40	
1990		290	100	15		173	1989/90	172	250	145	17		
1989		272	98	22	27	123	1988/89	207	259	125	15	21	140
1988		284	-	•	-	-	1987/88	-	195	-	-	-	-
1987		250		-		-	1986/87	-	272	- '	-	-	-
	-	252	_				1985/86						

Sharda Intake : Intake discharge with 75 % irrigation dependability
Year : Rabi 1989/1990 - Kharif 1990

Discharg: 3,021 MCM (Rabi)
: 4,102 MCM (Kharif)
: 7,123 MCM (Annual)

Hardoi Br. at Head: Diversion dischage with 75 % irrigation dependability
Year: Rabi 1989/1990 - Kharif 1990

Discharge: 1,580 MCM (Rabi) : 2,172 MCM (Kharif)

: 3,752 MCM (Annual)

Table F.30 Comparison of Seasonal Scheduled Discharge and Actual Discharge (2/2)

	Kharif Cr				Waterin			Rabi Cro	pping Water su	กกโย		Waterin	_
V	Dante	Water sug	ppiy	Roster			Year	Roster			Roster		
Year	Roster (MCM)	(MCM)	(%)	Nos.	Nos.		1 can		(MCM)		Nos.	Nos.	(%)
Lucknow	Br.												
at Head													
1990		717	99	23	26	113	1989/90	468	522	112	14	23	164
1989		674	84	24	25	104	1988/89	504	469	93	15	22	147
1988		746	~	-	-	-	1987/88	-	420	-	-	-	-
1987		779	-	-	-	-	1986/87	-	529	-	-	-	-
1986	-	724	-	•	•	-	1985/86	•	-	-	-	-	-
at 72 mls		- i	00	20	47		1000 00	144	100	116	1.4	02	
1990		254	99	23	27	117	1989/90		190	116	14	23	-
1989		231	85	24	_	96	1988/89	155	185	119	14	22	157
1988		270	-	-	-	-	1987/88	-	131	-	-	-	-
1987		221	-	-	-	-	1986/87	-	170	-	-	-	-
1986		301	-	-	-	-	1985/86	-	-	-	~	•	•
Asiwan B												·	
at Head		150	102	00	02	116	1000,00	102	126	120	13	23	177
1990		158	103	20	23	115	1989/90	103 86	136 91	132 106	8	23 17	213
1989		113	79	17	20	118	1988/89		71	100	•		213
1988		141	-	-	-	-	1987/88	-			-	-	
1987		119	-	-	-	-	1986/87	-	109	-	-	-	-
1986	-	129	-	-	-	-	1985/86	-	-	-	-	•	-
Purwa Br.													
at Head													
1990	187	194	104	15	26	173	1989/90	104	152	146	8	23	288
1989		177	102	14		164	1988/89	130	167	128	10	21	210
1988		190	•		-	-	1987/88	-	125	-	_	_	_
1987		153	_	_	_	_	1986/87	-	164	_	-	_	_
1986		153	-	-	٠	-	1985/86	-	-	-	-	-	-
at 30 mls											_		
1990		115	124	15	24	160	1989/90	51	69	135	8	20	
1989		92	106	14	22	157	1988/89	65	100	154	10	22	220
1988		96	-	-	-	-	1987/88	-	71	-	-	-	-
1987		80	-	-	-	-	1986/87	-	87	-	-	-	-
1986	-	93	-	-	-	-	1985/86	-	-	-	•	-	-
Unnao Br. at Head													
1990	102	96	94	12	20	167	1989/90	68	98	144	10	23	230
1989		95	92	15	20	133	1988/89	77	92	119	9	21	233
1988		94	-	-	-	-	1987/88	-	70	-	-	-	-
1987		97	-	-	-	-	1986/87	-	108	-	-	-	-
1986		99	-	-	-	-	1985/86	-	-	-	-	-	-
					٠								
at 33 mls						1.00	1000 50	4.7	45	101		00	000
1990		11	46	15	24	160	1989/90		17	106	10	22	
1989		10	200	13	19	146	1988/89	18	15	83	7	21	300
1988		12	-	-	-	-	1987/88	-	11	•	-	-	-
1987		19		-	-	-	1986/87 1985/86	-	37	-	-	-	-
1986		25											

Table F.31 Estimated Discharge of Maurawan Distributary (1/2) Kharif season (at beginning point of Sataon Area)

Unit: Cusec

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) Hajipur	(10)	(11)	(12) Total
No.	Roster starting	Nari- chak Mr.	Loma Mr.	Bamkat Mr.	gaon Mr.	Unai Mr.	Mr.	Mr.	Mr.	Mr.		Outlets	A OIGI
		1.											
1990		: '											
. 1	3-29			. .	6 -7	_		-		-	-	· ·	-
2	4-5	•	-		-	-			. -	-	-	-	-
3	4-12	-			-	-	. <u>-</u>	· -	. -	-	•	-	-
4	4-19	•			-		· ·-			-	-	. -	• •
5	4-24	30	•		4	4	4	4	4	4	54	21	75
6	5-3	-	4	4	-	•				. <u>-</u>	8	7	15
7	5-10	-		· •	-	-			. .	-	-	-	-
8	5-17	-			-	-					-	-	
9	5-24	-	4	4	. 4	4	4	4	. 4	4	32	13	45
10	5-31	30		. -	-	-		-			30	15	45
11	6-7	30		<u>-</u>	-	-		-		-	30	15	45
12	6-14	-	4	4	4	4	4	4	4	4	32	13	45
13	6-21	-	_	. <u>-</u>	-	-		-	-	. <u>-</u>	-	-	-
14	6-28	•	-	. .	• •	··· -		· -		. · ·	-	-	•
15	7-5	_	4	. 4	4	4	4	4	4	4	32	13	45
16	7-12	30	-	. <u>-</u>	-				. -		30	15	45
17	7-19	30	•	·	-	-			-	-	30	15	45
18	7-26		4	. 4	4	4	4	4	4	4	32	13	45
19	8-2	-	-	· -	• • •	• •		-		-	-	-	
20	8-9	-			-			. <u>.</u>	. -	-	-	-	
21	8-16	-	4	4	4	4	4	4	. 4	4	32	13	45
22	8-23	30		. <u>-</u>	-			. .		-	30	15	45
23	8-30	30	-		-		· -		· -		30	15	45
24	9-6	-	4	4	4	4	4	4	. 4	₁ 4	32	13	45
25	9-13	-	-	-		v.,	-	-	. <u>-</u>	•	-	•	-
26	9-20	30	-		5 ° =		-		. -	· -	30	15	45
27	9-27	-	4	4	4	4	4	4	4	4	32	13	45
													100

Table F.31 Estimated Discharge of Maurawan Distributary (2/2) Rabi season (at beginning point of Sataon Area)

Unit: Cusec

No.	Roster starting		(2) Lotna Mr.	(3) Bamkal Mr.	(4) Bitar- gaon Mr.	(5) Unai Mr.	(6) Bardar Mr.	(7) Sataon Mr,	(8) Koriha Mr.	(9) Hajipur Mr,		(11) Loss an Outlets	(12) Total
1989/	90												
1	10-5	-	-	-	-					-	-	₩.	-
2	10-12		•	-	-				-	-	-	-	
3	10-19	-	-	-	-					-	· -	-	-
4	10-26		-	-	-				· -	-		-	-
5	11-2	30	-	-	-				· -	-	30	15	45
6	11-9	-	4	4	4		4 4	. 4	4	4	32	13	45
7	11-16	-	-	_	-				· -	-	-	-	-
8	11-23	-	-	-	-				. -		-	-	-
9	11-30	-	-	-	-					-	-	-	-
10	12-7	30	-	_	-				-	-	30	15	45
11	12-14	-	4	4	4	4	4 4	4	4	4	32	13	45
12	12-21	-	-	-	-					-	-	_	-
13	12-28	-	-	-	-		<u>.</u> .		• •	-	-	-	-
14	1-4	-	-	-	-			· -	· •	-	-	-	
15	1-11	30	-	-	-				-	-	30	15	45
16	1-18	-	4	4	4	4	1 4	4	4	4	32	13	45
17	1-25	-	-	-	-	•		-	· -	-	-	-	-
18	2-1	-	-	-	-			. •	.	-	_	-	-
19	2-8	-	-		-			-	-	-	-	-	-
20	2-15	-	-	*. •	-			-	_	_	-	-	-
21	2-22	30	-	_			- -	-	-	-	30	15	45
22	3-1		-	-	-			-	-	-	-	_	-
23	3-8	-	-	-	-		_		-	_	_	-	-
24	3-15	••	-		-			-	-	-	-	-	-
25	3-22	**	4	4	-				-	_	8	7	15

Table F.32 Water Balance in Amausi Distributary Command for Design Year (1/2)
Kharif Season

<u> </u>		Roster				Actual			-	U.W.R.	D.W.R.		Water de	ficit	G.Water	
No.	starting	cusec (1)	MCM (2)		(4)	cusec (5)	(6)	(7)	(8)	TCM/100ha (9)	MCM (10)	MCM (11)	(Roster) MCM (12) (4)-(10)	MCM (13)	MCM (14)	
													,*			
1990											3,567 ha	3,567 ha				
1	3-29	0	0.00	0		0	0.00	0		_						
2	4-5	120	2.05	2.05		54	0.92	0.92		0	0.00	0.00				
3	4-12	0	0.00	2.05		9	0.15	1.08								
4	4-19	0	0.00	2.05		0	0.00	1.08								
5	4-24	0	0.00	2.05	2.05	0	0.00	1.08	1.08				2.05	1.08	-	•
6	5-3	90	1.54	3.59		0	0.00	1.08		6	0.21	0.21				
7	5-10	0	0.00	3.59		. 54	0.92	2.00								•
8	5-17	0	0.00	3.59		34	0.58	2.58								
9	5-24	120	2.05	5.65	3.59	64	1.10	3.68	2.60				3.38	2.39	-	-
10	5-31	90	1.54	7.19		54	0.92	4.60		174	6.21	6.21				
11	6-7	0	0.00	7.19		0	0.00	4.60								
12	6-14	120	2.05	9.24		74	1.27	5.87								
13	6-21	90	1.54	10.78	5.13	13	0.22	6.09	2.41				-1.07	-3.79	1.07	3.79
14	6-28	120	2.05	12.84		77	1,32	7.41		149	5.31	5.31				
15	7-5	0	0.00	12.84		12	0.21	7.62								
16	7-12	85	1.45	14.29		0	0.00	7.62					•			
17	7-19	120	2.05	16.35		46	0.79	8.40								
18	7-26	85	1.45	17.80	7.02	69	1.18	9.58	3.49				1.70	-1.82		1.82
19	8-2	0	0.00	17.80		14	0.24	9.82		186	6.63	6.63				•
20	8-9	120	2.05	19.85		90	1.54	11.36								
21	8-16	0	0.00	19.85	•	49	0.84	12.20								
22	8-23	120	2.05	21.91	4.11	43	0.74	12.94	3.35				-2.53	-3.28	2.53	3.28
23	8-30	0	0.00	21.91		0	0.00	12.94		66	2.35	2.35				
24	9-6	80	1.37	23.28		0	0.00	12.94								
25	9-13	120	2.05	25.33		99	1.69	14.63								
26	9-20	0	0.00	25.33	3.42	19	0.33	14.96	2.02				1.07	-0.33	-	0.33
27	9-27	120		27.39	2.05	69	1.18	16.14	1.18	36	1.28	1.28	0.77	0.10		0.10
			27.39		27.38		16.14	-,	16.14	617	22.01	22.01	5.37	-5.87	3.60	9.34

Table F.32 Water Balance in Amausi Distributary Command for Design Year (2/2) Rabi Season

No.	Roster starting		ischarg	e Acc.dis			discharg	e Acc.dis	MCM ⁻	U.W.R.	D.W.R.		Water de (Roster)	ficit (Actual)	G.Wate (Roster)	
NO.		cusec (1)	MCM (2)		(4)	cusec	MCM (6)			TCM/100ha (9)	MCM (10)	MCM (11)	MCM (12) (4)-(10)	MCM (13)	MCM (14)	MCM (15)
1989	00/50				t .		. *				3,716 ha	3,716 ha				
1	10-8	0	0.00	0		68.6	1.17	1.17		20	0.74	0.74				
2	10-15	0	0.00	0.00		. 0	0.00	1.17								·.
3	10-22	120	2.05	2.05	2.05	102.9	1.76	2.93	2.94				1.31	2.19		
4	10-29	0	0.00	2.05		65	1.11	4.04		110	4.09	4.09				
5	11-5	120	2.05	4.11		95	1.63	5.67								
6	11-12	0	0.00	4.11		103.6	1.77	7.44					•			
7	11-19	0	0.00	4.11	2.05	0	0.00	7.44	4.51				-2.03	0.42	2.03	-
8	11-26	0	0.00	4.11		21.4	0.37	7.81		125	4.65	4.65				
9	12-3	80	1.37	5.48		30	0.51	8.32					-			
10	12-10	0	0.00	5.48		40.7	0.70	9.02								
11	12-17	120	2.05	7.53		91.4	1.56	10.58								
12	12-24	0	0.00	7.53	3.42	17.9	0.31	10.89	3.45				-1.22	-1.20	1.22	1.20
13	12-31	0	0.00	7.53		0	0.00	10.89	•	157	5.83	5.83				
14	1-7	0	0.00	7.53		0	0.00	10.89					٠.,			
15	1-14	120	2.05	9.58		14.3	0.24	11.13								
16	1-21	0	0.00	9.58		39.4	0.67	11.81		•				•		
17	1-28	120	2.05	11.64	4.11	100.7	1.72	13.53	2.64		٠		-1.73	-3.19	1.73	3.19
18	2-4	0	0.00	11.64		11.4	0.20	13.73		120	4.46	4.46				
19	2-11	0	0.00	11.64		- 0	0.00	13.73								
20	2-18	80	1.37	13.01		0	0.00	13.73						•		
21	2-25	120	2.05	15.06	3.42	41.4	0.71	14.44	0.90	•			-1.04	-3.56	1.04	3.56
22	3-4	0	0.00	15.06		50.7	0.87	15.30		38	1.41	1.41				
23	3-11	0	0.00	15.06		6.4	0.11	15.41							•	
24	3-18	0	0.00	15.06		0	0.00	15.41						4		
25	3-25	0	0.00	15.06	0.00	0	0.00	15.41	0.98		:		-1.41	-0.43	1.41	0.43
			15.06		15.06		15.42		15.42	570	21.18	21.18	-6.12	-5.76		8.38

Table F.33 Water Balance in Maurawan Distributary Command for Design Year (1/2)
Kharif Season

1990 1			discha			Wkty	dischar			<u>U.W</u>		D.W.R.		Water de	(Actual)		supply (Roster)
1	starting	cusec (1)	MCM (2)		(4)	cusec (5)	(6)	(7)	(8)	TCM (9)	I/100hs	MCM (10)	MCM (11)	MCM (12) (4)-(10)	MCM (13)	MCM (14)	MCM (15)
1											•	a aco 1	a 000 1				
			_	_								3,090 ha	3,090 ha				•
	3-29	0	0	100		0	.0.	0						•			
	4-5	0	0.00			0	0.00	0.00			0	0.00	0.00				
	4-12	0	0.00			0	0.00	0.00	1			* . *					
4	4-19	0	0.00			0	0.00	0.00									
	4-24	75	1.28	1.28	1.28	0	0.00	0.00	0.00					1.28	0.00	•	
6	5-3	15	0.26	1.54		0	0.00	0.00			6	0.19	0.19				
	5-10	0		1.54		0	0.00	0.00									
8	5-17	0	0.00	1.54		. 0	0.00	0.00		1.1					1.00		
9	5-24	45	0.77	2.31	1.03	0	0.00	0.00	0.00		٠.	*-		0.84	-0.19	-	0.19
10	5-31	45	0.77	3.08		0	0.00	0.00			130	4.02	4.02				
11	6-7	45	0.77	3.85		0	0.00	0.00									
12	6-14	45	0.77	4.62		0	0.00	0.00	•	٠.							
13 (6-21	0.	0.00	4.62	2.31	0	0.00	0.00	0.00					-1.71	-4.02	1.71	4.02
14	6-28	0	0.00	4.62		0	0.00	0.00			108	3.34	3.34				
15	7-5	45	0.77	5.39		0	0.00	0.00		٠,٠				-			
16 '	7-12	45	0.77	6.16		0	0.00	0.00									
17	7-19	45	0.77	6.93		0.6	0.01	0.01									
18 ′	7-26	45	0.77	7.70	3.08	5.5	0.09	0.10	0.10					-0.26	-3.23	0.26	3.23
19	8-2	0	0.00	7.70		4.8	0.08	0.19			166	5.13	5.13			•	
20	8-9	0	0.00	7.70		0	0.00	0.19									
21	8-16	45	0.77	8.47		0	0.00	0.19									
22	8-23	45	0.77	9.24	1.54	0	0.00	0.19	0.08		: .	:		-3.59	-5.05	3.59	5.05
23	8-30	45	0.77	10.01		0	0.00	0.19			117	3.62	3.62				•
24	9-6	45	0.77	10.78		0	0.00	0.19									
	9-13	0		10.78		0	0.00	0.19									
	9-20	45		11.55	2.31	0	0.00	0.19	0.00					-1.30	-3.62	1.30	3.62
	9-27	45		12.32	0.77	0	0.00	0.19	0.00		35	1.08	1.08	-0.31		0.31	1.08
			12.32		12.32		0.19		0.19		562	17.37	17.37	-5.04	-17.18	7.17	17.18

Table F.33 Water Balance in Maurawan Distributary Command for Design Year (2/2) Rabi Season

•		Roster				Actual			····		D.W.R.		Water de		G.Water	
No.	starting	cusec (1)	мсм ² (2)		(4)	Wkly cusec (5)	MCM (6)	Acc.dis (7)		TCM/100hs (9)	MCM (10)	MCM (11)	(Roster) MCM (12) (4)-(10)	MCM (13)	MCM (14)	
1989)/90										3,219 ha :	3,219 ha				
1	10-5	0	0	0		0	0	0		21	0.68	0.68				
2	10-12	0	0.00	0.00		0.0	0.00	0.00								
3	10-19	0	0.00	0.00	0.00	0.0	0.00	0.00	0.00				-0.68	-0.68	0.68	0.68
4	10-26	0	0.00	0.00		4.6	0.08	0.08		115	3.70	3.70				
5	11-2	45	0.77	0.77		2.6	0.04	0.12								
6	11-9	45	0.77	1.54		0.0	0.00	0.12					•			
7	11-16	0	0.00	1.54	1.54	1.4	0.02	0.15	0.15				-2.16	-3.55	2.16	3.55
8	11-23	0	0.00	1.54		2.7	0.05	0.19		123	3.96	3.96				
9	11-30	0	0.00	1.54		8.3	0.14	0.34								
10	12-7	45	0.77	2.31		21.0	0.36	0.69								
11	12-14	45	0.77	3.08		6.1	0.10	0.80								
12	12-21	0	0.00	3.08	1.54	0.0	0.00	0.80	0.65				-2.42	-3.31	2.42	3.31
13	12-28	0	0.00	3.08		0.0	0.00	08.0		157	5.05	5.05				
14	1-4	0	0.00	3.08		0.0	0.00	0.80								
15	1-11	45	0.77	3.85		3.0	0.05	0.85								
16	1-18	45	0.77	4.62		5.3	0.09	0.94								
17	1-25	0	0.00	4.62	1.54	0.0	0.00	0.94	0.14				-3.51	-4.91	3.51	4.91
18	2-1	0	0.00	4.62		0.0	0.00	0.94		108	3.48	3.48				
19	2-8	0	0.00	4.62		0.0	0.00	0.94								
20	2-15	0	0.00	4.62		0.0	0.00	0.94		•						
21	2-22	45	0.77	5.39	0.77	0.0	0.00	0.94	0.00				-2.71	-3.48	2.71	3.48
22	3-1	0	0.00	5.39		0.0	0.00	0.94		38	1.22	1.22				
23	3-8	0	0.00	5.39		0.0	0.00	0.94		•						
24	3-15	.0	0.00	5.39		0.0	0.00	0.94								
25	3-22	45	0.77	6.16	0.77	0.0	0.00	0.94	0.00				-0.45	-1.22	0.45	1.22
			6.16		6.16		0.94		0.94	562	18.09	18.09	-11.93	-17.15	11.93	17.15

Table F.34 Water Balance in Badaicha Distributary Command for Design Year (1/2)
Kharif season

		Roaster				Actual				U.W.R.	D.W.	R.	Water del		G.Water	
No.	starting		MCM (2)		(4)		МСМ [*] (6)	Acc.dis.		TCM/100ha (9)	MCM (10)	MCM (11)	(ROSIET) MCM (12) (4)-(9)	MCM (13) (8)-(9)	(Roster) MCM (14)	MCM (15)
					-											
199)										3,761 ha	3,761 ha				
1	3-29	0	0.00	0		18	0.31	0.31		23	0.87	0.87				
2	4-5	0	0.00	0.00	:	35	0.60	0.91								
3	4-12	0	0.00	0.00		32	0,55	1.46		-						
4	4-19	0.	0.00	0.00		0	0.00	1.46								
5	4-24	88	1.51	1.51	1.51	41	0.70	2.16	2.16				0.64	1.29	٠,٠	-
6	5-3	0	0.00	1.51		54	0.92	3.08		39	1.47	1.47				
7	5-10	0	0.00	1.51		10	0.17	3.25					٠.			
8	5-17	60	1.03	2.53		45	0.77	4.02								
9	5-24	0	0.00	2.53	1.03	26	0.45	4.47	2.31				-0.44	0.84	0.44	-
10	5-31	88	1.51	4.04		57	0.98	5.44		212	7.97	7.97				
11	6-7	0	0.00	4.04		64	1.10	6.54								
12	6-14	88	1.51	5.55		70	1.20	7.74								
13	6-21	88	1.51	7.05	4.52	83	1.42	9.16	4.69				-3.45	-3.28	3.45	3.28
14	6-28	0	0.00	7.05		33	0.56	9.72		196	7.37	7.37	1.32			
15	7-5	88	1.51	8.56		53	0.91	10,63								
16	7-12	0	0.00	8.56		18	0.31	10.94						200		
17	7-19	88	1.51	10.06		33	0.56	11.50								
18	7-26	0	0.00	10.06	3.01	73	1.25	12.75	3.59				-4.36	-3.78	4.36	3.78
19	8-2	88	1.51	11.57		72	1.23	13.99		59	2.22	2.22				
20	8-9	88	1.51	13.08		81	1.39	15.37				-	,	-		
21	8-16	0	0.00	13.08		42	0.72	16.09								
22	8-23	88	1.51	14.58	4.52	65	1.11	17.20	4.45				2.30	2.23		-
23	8-30	60		15.61		78	1.34	18.54		144	5.42	5.42	2			
24	9-6	0		15.61		88	1.51	20.04								
25	9-13	88		17.12		83		21.47		1.1						
26	9-20	0		17.12	2.53			22.71	5.51				-2.88	0.10	2.88	
27	9-27	88		18.62	1.51			23.90	1.18	59	2.22	2.22	0.71	1.04	0.71	1.04
			18.62		18.63		23.89		23.89	732	27.53	27.53	-8.90	-3.64	11.85	8.10

Table F.34 Water Balance in Badaicha Distributary Command for Design Year (2/2) Rabi Season

	Roaster					Actual			14014	U.W.R.	D.W	/.R.	Water de		G.Water	
No.	starting	cusec (1)	MCM [*] (2)		(4)	W'kly cusec (5)	MCM (6)	Acc.dis		TCM/100ha (9)	MCM (10)	MCM (11)	MCM (12)		(Roster) MCM (14)	(Actual) MCM (15)
1989	9/90										3,917 ha 3	3,917 ha				
1	10-5	0	0.00	0		85	1.45	1.45		48	1.88	1.88				
2	10-12	0	0.00	0.00		83	1.42	2.87								
3	10-19	0	0.00	0.00		88	1.51	4.38								
4	10-26	88	1.51	1,51	1.51	75	1.28	5.66	5.67				-0.37	3,79	0.37	
5	11-2	0	0.00	1.51		61	1.04	6.70		117	4.58	4.58				
6	11-9	88	1.51	3.01		88	1.51	8.21								
7	11-16	60	1.03	4.04		34	0.58	8.79								
8	11-23	0	0.00	4.04	2.53	34	0.58	9.37	3.71				-2.05	-0.87	2.05	0.87
9	11-30	60	1.03	5.07		34	0.58	9.96		116 ·	4.54	4.54				
10	12-7	0	0.00	5.07		48	0.82	10.78	*							
11	12-14	88	1.51	6.57		75	1.28	12.06								
12	12-21	0	0.00	6.57		20	0.34	12.40								
13	12-28	0	0.00	6.57	2.53	0	0.00	12.40	3.03				-2,01	-1.51	2.01	1.51
14	1-4	0	0.00	6.57		42	0.72	13.12		140	5.48	5.48				
15	1-11	88	1.51	8.08		37	0.63	13.76								
16	1-18	0	0.00	8.08		8	0.14	13.89								
17	1-25	0	0.00	8,08	1.51	41	0.70	14.59	2.19				-3.98	-3.29	3.98	3.29
18	2-1	88	1.51	9.58		23	0.39	14.99		116	4.54	4.54				
19	2-8	0	0.00	9.58		0	0.00	14.99								
20	2-15	0	0.00	9.58		65	1.11	16.10					-			
21	2-22	0	0.00	9.58	1.51	52	0.89	16.99	2.40				-3.04	-2.15	3.04	2.15
22	3-1	0	0.00	9.58		44	0.75	17.74		44	1.72	1.72				
23	3-8	0	0.00	9.58		0	0.00	17.74		•						
24	3-15	60	1.03	10.61		42	0.72	18.46								
25	3-22	88	1.51	12.12	2.53	29	0.50	18.96	1.97				0.81	0.24	-	-
-			12.12		12.12		18.96		18.96	581	22.76	22.76	·10.64	-3.79	11.45	7.82

Table F.35 Water Balance in Marsa Minor Command for DesignYear (1/2)
Kharif Season

	Roster	Roster	dischar	ge .		Actual d				U.V	V.R.	D.W		Water de		G. Water	
No.	starting	cusec (1)	MCM (2)	Acc.dis (3)	. <u>MCM</u> (4)	Wkly cusec (5)	мсм (6)	Acc.dis (7)			100ha	MCM (10)	MCM (11)	(Roster) MCM (12) (4)-(9)	MCM (13) (8)-(9)	MCM (14)	MCM
																•	
1990								-				394 ha	394 ha				
1	3-29	.0	0.00	. 0	2 :	5.6	0.10	0.10		• .	23	0.09	0.09				
2	4-5	0	0.00	0.00	•	0.0	0.00	0.10									
3	4-12	. 0	0.00	0.00		0.0	0.00	0.10									
4	4-19	0	0.00	0.00		0.0	0.00	0.10								-	
5	4-24	20	0.34	0.34	0.34	7.4	0.13	0.22	0.22					0.25	0.13	-	-
6	5-3	20	0.34	0.68		13.0	0.22	0.45			39	0.15	0.15				
7	5-10	0	0.00	0.68		5.6	0.10	0.54				-					
8	5-17	20	0.34	1.03		5.6	0.10	0.64				÷					
9	5-24	20	0.34	1.37	1.03	13.0	0.22	0.86	0.64					0.87	0.48	•	
10	5-31	20	0.34	1.71		13.0	0.22	1.08		٠.	212	0.84	0.84				
11	6-7	20	0.34	2.05		13.0	0.22	1.30			-						
12	6-14	20	0.34	2.40		13.0	0.22	1.53	$\tau_{\infty} \tau$			-					
13	6-21	20	0.34	2.74	1.37	13.0	0.22	1.75	0.89	•	7.7			0.53	0.05	-	-
14	6.28	0	0.00	2.74		0.0	0.00	1.75			196	0.77	0.77				
15	7-5	20	0.34	3.08		7.4	0.13	1.88								:	
16	7-12	20	0.34	3.42		5.6	0.10	1.97						:			
17	7-19	20	0.34	3.77		11.1	0.19	2.16				-					
18	7-26	20	0.34	4.11	1.37	13.0	0.22	2.38	0.63					0.60	-0.14	-	0.14
19	8-2	20	0.34	4.45		13.0	0.22	2.61		٠.	59	0.23	0.23				
20	8-9	20	0.34	4.79		13.0	0.22	2.83						-			
21	8-16	0	0.00	4.79		13.0	0.22	3.05									
22	8-23	20	0.34	5.13	1.03	13.0	0.22	3.27	0.89					0.79	0.66	· -	•
23	8-30	20	0.34	5.48		13.0	0.22	3.50			144	0.57	0.57	' 1			
24	9-6	20	0.34	5.82		13.0	0.22	3.72									
25	9-13	0	0.00	5.82		13.0	0.22	3.94									
26	9-20	20	0.34	6.16	1.03	13.0	0.22	4.16	0.89	1				0.46	0.32	-	
27	9-27	20	0.34	6.50	0.34	13.0	0.22	4.39	0.22	:	59	0.23	0.23	0.11	-0.01	-	0.01
	·		6.50		6.50		4.39		4.38	 -	732	2.88	2.88	3.62	1.50	0.00	0.15

Table F.35 Water Balance in Marsa Minor Command for DesignYear (2/2) Rabi Season

.,	starting					Actual d		e Acc.dis	MOM	U,W.R.	D.V	v.R.	Water deficit G. Water Supply. (Roster) (Actual) (Roster) (Actual					
No.		(1)	MCM (2)		,мсм (4)	cusec (5)	мсм (6)			TCM/100ha (9)	MCM (10)	MCM (11)	MCM (12) (4)-(10)	MCM (13)				
1000											Allha	411 ha						
1989 1	10-5	0	0.00	0		7.4	0.13	1.45		48	0.20	0.20						
2	10-12	20	0.34	0.34		13.0	0.22	1.67			0.20							
3	10-12	20	0.34			13.0	0.22	1.90										
4	10-26	0	0.00	0.68	0.68	5.6	0.10	1.99	0.67				0.49	0.47				
5	11-2	20	0.34	1.03	0.00	6.5	0.11	2.10		117	0.48	0.48						
6	11-9	0	0.00	1.03		6.4	0.11	2.21										
7	11-16	0	0.00	1.03		0.0	0.00	2.21										
8	11-23	20	0.34	1.37	0.68	0.0	0.00	2.21	0.22				0.20	-0.26	-	0.26		
9	11-30	0	0.00	1.37		11.1	0.19	2.40		116	0.48	0.48						
10	12-7	0	0.00	1.37		13.0	0.22	2.62										
11	12-14	20	0.34	1.71		13.0	0.22	2.85										
12	12-21	0	0.00	1.71		3.7	0.06	2.91										
13	12-28	0	0.00	1.71	0.34	0.0	0.00	2.91	0.70				-0.13	0.22	0.13	-		
14	1-4	0	0.00	1.71		5.6	0.10	3.01		140	0.58	0.58						
15	1-11	20	0.34	2.05		13.0	0.22	3.23										
16	1-18	0	0.00	2.05		5.6	0.10	3.32							-			
17	1-25	20	0.34	2.40	0.68	5.6	0.10	3.42	0.51				0.11	-0.07	-	0.07		
18	2-1	0	0.00	2.40		0.0	0.00	3.42		116	0.48	0.48						
19	2-8	0	0.00	2,40		0.0	0.00	3.42										
20	2-15	0	0.00	2.40		9.3	0.16	3.58										
21	2-22	0	0.00	2.40	0.00	7.4	0.13	3.71	0.29				-0.48	-0.19	0.48	0.19		
22	3-1	20	0.34	2.74		7.1	0.12	3.83		44	0.18	0.18						
23	3-8	0	0.00	2.74		0.0	0.00	3.83										
24	3-15	0	0.00	2.74		0.0	0.00	3.83										
25	3-22	0	0.00	2.74	0.34	5.6	0.10	3.92	0.22				0.16	0.04	٠	-0.0		
			2.74		2.74		2.60		2.60	581	2.39	2.39	0.35	0.21	0.61	0.48		

Table F.36 Water Balance in Purwa Distributary Command for Design Year (1/2) Kharif Season

No.	Roster starting	Roster discharge Acc.dis.MCN				Actual		ge Acc dis	MCM	U.W.R.	D,W		Water deficit G.Wtare Supply (Roster) (Actual)				
110.	Starting	cuséc (1)	MCM (2)		(4)		MCM (6)		(8)	TCM/100ha (9)	MCM (10)	MCM (11)	MCM	MCM (13)	MCM (14)		
1990											1.274 ha	1.274 ha					
1	3-29	0	0.00	0		18	0.31	0.31		- 0	0.00	0.00			: .		
2	4-5	57	0.98	0.98		28	0.48	0.79									
3	4-12	0	0.00	0.98		11	0.19	0.98					•				
4	4-19	0	0.00	0.98		0	0.00	0.98	. 1								
5	4-24	0	0.00	0.98	0.98	0	0.00	0.98	0.98				0.98	0.98		-	
6	5-3	57	0.98	1.95		8	0.14	1,11		6	0.08	0.08	٠,				
7	5-10	0	0.00	1.95		4	0.07	1.18									
8	5-17	- 0	0.00	1.95		14	0.24	1.42	:			+1					
9	5-24	0	0.00	1.95	0.98	10	0.17	1.59	0.62				0.90	0.54		-	
10	5-31	57	0.98	2.93		16	0.27	1.87		179	2.28	2.28					
11	6-7	0	0.00	2.93		35	0.60	2.47			•						
12	6-14	0	0.00	2.93		23	0.39	2.86								.:	
13	6-21	57	0.98	3.90	1.95	23	0.39	3.25	1.66	-			-0.33	-0.62	0.33	0.62	
14	6-28	57	0.98	4.88		22	0.38	3.63		162	2.06	2.06				*	
15	7-5	0	0.00	4.88		19	0.33	3.96									
16	7-12	0	0.00	4.88		0	0.00	3.96									
17	7-19	57	0.98	5.85		23	0.39	4.35									
18	7-26	0	0.00	5.85	1.95	19	0.33	4.67	1,42	• .			-0.11	-0.64	0.11	0.64	
19	8-2	57	0.98	6.83		12	0.21	4.88		90	1.15	1.15					
20	8-9	. 57	0,98	7.80		38	0.65	5.53			*						
21	8-16	57	0.98	8.78		38	0.65	6.18									
22	8-23	0	0.00	8.78	2.93	15	0.26	6.44	1.76				1.78	0.62	•	-	
23	8-30	0	0.00	8.78		25	0.43	6.87		190	2.42	2.42					
24	9-6	0	0.00	8.78		0	0.00	6.87									
. 25	9-13	57	0.98	9.76		15	0.26	7.12									
26	9-20	57	0.98	10.73	1.95	32	0.55	7.67	1.23		-		-0,47	-1.19	0.47	1.19	
27	9-27	0	0.00	10.73	0.00	- 19	0.33	8.00	0.33	37	0.47	0.47	-0.47	-0.14	0.47	0.14	
-			10.73		10.73		7.99	··	8.00	664	8.46	8.46	2.27	-0.46	1.38	2.59	

Table F.36 Water Balance in Purwa Distributary Command for Design Year (2/2) Rabi Season

NT-	Roster	Roster	dischar	ge Ann din		Actual o		ge Acc.dis	MCM		D.W.R.		Water de (Roster)		3.water (
No.	starting	cusec	MCM		MICH	cusec				TCM/100ha	MCM	MCM		MCM		MCM
		(1)	(2)		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12) (4)-(10)	(13) (8)-(11)	(14)	(15)
1989	/90					:	.•				1,326 ha	1,326 ha				
1	10-5	0	0,00	.0		25	0.43	0.43		21	0.28	0.28				
2	10-12	57	0.98	0.98		11	0.19	0.62								
3	10-19	57	0.98	1.95		9	0.15	0.77								
4	10-26	0	0.00	1.95	1.95	35	0.60	1.37	1.37				1.67	1.09	-	-
5	11-2	0	0.00	1.95		25	0.43	1.80		106	1.41	1.41				
6	11-9	0	0.00	1.95		. 2	0.03	1.83								
7	11-16	0	0.00	1.95		22	0.38	2.21						**		
8	11-23	57	0.98	2.93	0.98	21	0.36	2.57	1.20				-0.43	-0.21	0.43	0.21
9	11-30	57	0.98	3.90		5	0.09	2.66		125	1.66	1.60	ı			
10	12-2	0	0.00	3.90		0	0.00	2.66								4
11	12-14	0	0.00	3.90		0	0.00	2.66								
12	12-21	0	0.00	3.90	0.98	0	0.00	2.66	0.09				-0.68	-1.57	0.68	1.57
13	12-28	0	0.00	3.90		0	0.00	2.66		157	2.08	2.08				
14	1-4	0	0.00	3.90		0	0.00	2.66								
15	1-11	0	0.00	3.90		11	0.19	2.84								
16	1-18	57	0.98	4.88		28	0.48	3.32								
17	1-25	57	0.98	5.85	1.95	10	0.17	3.49	0.84				-0.13	-1.24	0.13	1.24
18	2-1	0	0.00	5.85		37	0.63	4.13		97	1.29	1.29	I			
19	2-8	0	0.00	5.85		20	0.34	4.47								
20	2-15	0	0.00	5.85		0	0.00	4.47								
21	2-22	0	0.00	5.85	0.00	15	0.26	4.73	1.23				-1.29	-0.05	1.29	0.05
22	3-1	57	0.98	6.83		22	0.38	5.10		38	0.50	0.50	1			
23	3-8	57	0.98	7.80		6	0.10	5.21								
24	3-15	0	0.00	7.80		5	0.09	5.29		•						
25	3-22	0	0.00	7.80	1.95	2	0.03	5.33	0.60				1.45	0.10	-	•
	· · · · · · · · · · · · · · · · · · ·		7.80		7.80		5.32		5.32	544	7.21	7.21	0.59	-1.89	2.53	3.08

Table F.37 Water Balance in Tikar Distributary Command for Design Year (1/2)
Kharif Season

	Roster						dischar			U.W.R.	D.W.	R.	Water de		G.Wtare Supply (Roster) (Actual)	
No.	starting	cusec (1)	MCM (2)		(4)	wkly cusec (5)	MCM (6)		(8)	TCM/100ha (9)	MCM (10)	MCM (11)		MCM (13)		MCM (15)
											1.001.1-	1.001.1				
199		_		_							•	1,021 ha				•
1	3-29	0	0.00	0		11.8	0.20	0.31		0	0.00	0.00		. •		
2	4-5	25	0.43	0.43		14.6	0.25	0.56								
3	4-12	0	0.00	0.43		9.7	0.17	0.73		•						
4	4-19	. 0	-	0.43		0	0.00	0.73								
5	4-24	0	0.00		0.43	0	0.00	0.73	0.62	· .			0.43	0.62	-	-
6	5-3	25	0.43	0.86		8.3	0.14	0.87		. 6	0.06	0.06				
7	5-10	0	0.00	0.86		14.8	0.25	1.12								
.8	5-17	0	0.00	0.86		8.6	0.15	1.27	٠.							
9	5-24	0	0.00		0.43	12.3	0.21		0.75	1.0			0.37	0.69	-	
10	5-31	25	0.43	1.28		7.8	0.13	1.61		179	1.83	1.83				
11	6-7	25	0.43	1.71		17.7	0.30	1.92								
12	6-14	0	0.00	1.71		8.4	0.14	2.06							٠.	
13	6-21	25	0.43	2.14	1.28	8.3	0.14	2.20	0.72				-0.54	-1.11		1.11
14	6-28	25	0.43	2.57		11.7	0.20	2.40		162	1.65	1.65				
15	7-5	0	0.00	2.57		11.3	0.19	2.59								
16	7-12	0	0.00	2.57		0	0.00	2.59								
17	7-19	25	0.43	3.00		8.7	0.15	2.74								
18	7-26	0	0.00	3.00	0.86	12.7	0.22	2.96	0.76				-0.80	-0.89	0.80	0.89
19	8-2	25	0.43	3.42		7	0.12	3.08		90	0.92	0.92				
20	8-9	25	0.43	3.85		12.6	0.22	3.30								
21	8-16	25	0.43	4.28		16.8	0.29	3.58						•		
22	8-23	25	0.43	4.71	1.71	7.3	0.12	3.71	0.75				0.79	-0.17	-	-
23	8-30	0	0.00	4.71		7.1	0.12	3.83		190	1.94	1.94				
24	9-6	0	0.00	4.71		4.6	0.08	3.91		•			:			
25	9-13	25	0.43	5.13		8.6	0.15	4.06						٠		
26	9-20	25	0.43	5.56	0.86	19.7	0.34	4.39	0.68				-1.08	-1.26	1.08	1.26
27	9-27	0	0.00	5.56	0.00	0	0.00	4.39	0.00	. 37	0.38	0.38	-0.38	-0.38	0.38	0.38
			5.56		5.56		4.29		4.29	664	6.78	6.78	-1.22	-2.49	2.26	3.63

Table F.37 Water Balance in Tikar Distributary Command for Design Year (2/2) Rabi Season

		Roster				Actual				U.W.R.	D.W.R.		Water de		G.water	
No.	starting	cusec (1)				Wkty cusec (5)		Acc.dis		TCM/100ha (9)	MCM (10)	MCM (11)		MCM (13)	(Roster) MCM (14)	MCM (15)
198	9/90			-							1,063 ha	1,063 ha				
1	10-5	0	0.00	0		13	0.22	0.22		21	0.22	0.22				
2	10-12	25	0.43	. 0.43		10	0.17	0.39								
3	10-19	. 25	0.43	0.86		20	0.34	0.74								
4	10-26	0	0.00	0.86	0.86	20	0.34	1.08	1.08				0.63	0.86	-	-
5	11-2	0	0.00	0.86		15	0.26	1.34		106	1.13	1.13				
6	11-9	0	0.00	0.86		3	0.05	1.39								
7	11-16	25	0.43	1.28		14	0.24	1.63								
8	11-23	25	0.43	1.71	0.86	9	0.15	1.78	0.70				-0.27	-0.43	0.27	0.43
9	11-30	0	0.00	1.71		9	0.15	1.93		125	1.33	1.33				
10	12-2	0	0.00	1.71		0	0.00	1.93								
11	12-14	0	0.00	1.71		8	0.14	2.07								
12	12-21	0	0.00	1.71	0.00	5	0.09	2.16	0.38				-1.33	-0.95	1.33	0.95
13	12-28	0	0.00	1.71		0	0.00	2.16		157	1.67	1.67				
14	1-4	0	0.00	1.71		5	0.09	2.24								
15	1-11	0	0.00	1.71		12	0.21	2.45								
16	1-18	25	0.43	2.14		5	0.09	2.53					•			
17	1-25	25	0.43	2.57	0.86	17	0.29	2.82	0.67				-0.81	-1.00	0.81	1.00
18	2-1	0	0.00	2.57		10	0.17	3.00		97	1.03	1.03				
19	2-8	0	0.00	2.57		0	0.00	3.00								
20	2-15	0	0.00	2.57		3	0.05	3.05								
21	2-22	0	0.00	2.57	0.00	9	0.15	3.20	0.38				-1.03	-0.65	1.03	0.65
22	3-1	25	0.43	3.00		11	0.19	3.39		38	0.40	0.40				
23	3-8	25	0.43	3.42		11	0.19	3.58								
24	3-15	0	0.00	3.42		10	0.17	3.75								
25	3-22	0	0.00	3.42	0.86	5	0.09	3.83	0.63				0.45	0.23	-	-
			3.42		3.42		3.83		3.83	544	5.78	5.78	-2.36	-1.95	3.44	3.03

Table F.38 Water Balance in Chmyanil Dy.& Pakara Mr. Command for Design Year (1/2) Kharif Season

	Roster	Roster	dischar	e	MOM		dischar	ge Acc.dis	мем	U.W.R.	D.V	/,R.	Water de (Roster)		G.Wiare (Roster)	
No.	starting	cusec (1)			(4)	Wkly cusec (5)			(8)	TCM/100hs (9)	MCM (10)	MCM (11)		MCM (13)		
440-4 P																
199	0					*					-	646 ha				
1	3-29	0	0.00	, 0		14.7	0.25	0.25		41	0.26	0.26				
2	4-5	18	0.31	0.31		17.3	0.30	0.55			:					
3	4-12	.0	0.00	0.31		10.3	0.18	0.72								
4	4-19	0	0.00	0.31		0	0.00	0.72								
5	4-24	0	0.00	0.31	0.31	0	0.00	0.72	0.72				0.04	0.46	•	-
6	5-3	18	0.31	0.62		9.1	0.16	88.0		56	0.36	0.36				
. 7	5-10	ð	0.00	0.62		15.7	0.27	1.15								
8	5-17	5	0.09	0.70		9.4	0.16	1.31	•							
9	5-24	0	0.00	0.70	0.39	14	0.24	1.55	0.82				0.03	0.46	•	-
10	5-31	18	0.31	1.01		9.1	0.16	1.70		192	1.24	1.24				
11	6-7	5	0.09	1.10		20	0.34	2.05								
12	6-14	0	0.00	1.10		11.7	0.20	2.25						•		:
13	6-21	18	0.31	1.40	0.70	17.4	0.30	2.54	1.00				-0.54	-0.24	0.54	0.24
14	6-28	18	0.31	1.71		18	0.31	2.85		215	1.39	1.39				
15	7-5	0	0.00	1.71		13.2	0.23	3.08								
16	7-12	5	0.09	1.80		0	0.00	3.08								
17	7-19	18	0.31	2.11		. 12	0.21	3.28								
18	7-26	0	0.00	2.11	0.70	14.3	0.24	3.53	0.98				-0.69	-0.40	0.69	0.40
19	8-2	18	0.31	2.41		8.1	0.14	3.67		118	0.76	0.76				
20	8-9	18	0.31	2.72		22	0.38	4.04								
21	8-16	18	0.31	3.03		21.1	0.36	4.40								
22	8-23	5	0.09	3.12	1.01	6.2	0.11	4.51	0.98				0.25	0.22	-	-
23	8-30	0	0.00	3.12		8.9	0.15	4.66		215	1.39	1.39				
24	9-6	. 0	0.00	3.12		5.5	0.09	4.76								
25	9-13	18	0.31	3.42		9.4	0.16	4.92				,				
26	9-20	18	0.31	3.73	0.62	22	0.38	5.29	0.78				-0.77	-0.60	0.77	0.60
27	9-27	0	0.00	3.73	0.00	4	0.07	5.36	0.07	49	0.32	0.32	-0.32	-0.25	0.32	0.2
	······		3.73		3.73	·	5.36		5.37	886	5.72	5.72	-1.99	-0.36	2.31	1.50

Table F.38 Water Balance in Chmyanil Dy,& Pakara Mr. Command for Design Year (2/2) Rabi Season

*1	Roslei	Roster				Actual			101	U.W.R.	D.W.R.		Water de		G.water	
No.	starting	cusec	мсм		MCM	W'kly cusec		Acc.dis	MUM	TCM/100ha	мсм	MCM	(Roster)		(Roster) MCM	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12) (4)-(10)	(13)	(14)	(15)
198	9/90							- -			673 ha	673 ha				
. 1	10-5	0	0.00	. 0		10	0.17	0.43		7	0.05	0.05				
2	10-12	18	0.31	0.31		4	0.07	0.50								
3	10-19	18	0.31	0.62		15	0.26	0.76								
4	10-26	0	0.00	0.62	0.62	22	0.38	1.13	0.87				0.57	0.83	-	-
5	11-2	0	0.00	0.62		19	0.33	1.46		100	0.67	0.67				
6	11-9	0	0.00	0.62		8	0.14	1.59								
7	11-16	0	0.00	0.62		14	0.24	1.83								
8	11-23	18	0.31	0.92	0.31	12	0.21	2.04	0.91				-0.36	0.23	0.36	-
9	11-30	18	0.31	1.23		14	0.24	2.28		128	0.86	0.86				
10	12-2	0	0.00	1.23		7	0.12	2.40								
11	12-14	0	0.00	1.23		5	0.09	2.48								
12	12-21	0	0.00	1.23	0.31	7	0.12	2.60	0.56	:"			-0.55	-0.30	0.55	0.30
13	12-28	0	0.00	1.23		0	0.00	2.60		164	1.10	1.10				
14	1-4	0	0.00	1.23		2	0.03	2.64		•						
15	1-11	0	0.00	1.23		10	0.17	2.81								
16	1-18	18	0.31	1.54		3	0.05	2.86								
17	1-25	18	0.31	1.85	0.62	14	0.24	3.10	0.50				-0.49	-0.61	0.49	0.61
18	2-1	0	0.00	1.85		11	0.19	3.29		119	0.80	0.80				
19	2-8	0	0.00	1.85		0	0.00	3.29								
20	2-15	0	0.00	1.85	•	12	0.21	3.49								
21	2-22	0	0.00	1.85	0.00	. 18	0.31	3.80	0.70				-0.80	-0.10	0.80	0.10
22	3-1	18	0.31	2.16		16	0.27	4.08		63	0.42	0.42				
23	3-8	18	0.31	2.46		8	0.14	4.21								
24	3-15	0	0.00	2.46		10	0.17	4.38								
25	3-22	0	0.00	2.46	0.62	6	0.10	4.49	0.68				0.19	0.26	•	
			2.46		2.46		4.23		4.23	581	3.91	3.91	-1.45	0.32	2.21	1.00

Table F.39 Available Sai River Discharge

Measured Discharge

Unit

: m3/sec

Station : Auras, Unnao Catchment area : 1,950 km2

JUL SEP AUG

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	'Total
1985	_	-	·		<u>-</u>	- -		28.37	88.24	105.63	22.86	10.85	.Wig
1986	5.09	4.31	2.90	2.68	1.92	2.33	29.54	20.03	11.31	7.83	4.30	0.99	93.23
1987	4.81	3.85	3.36	2.83	2.27	2.00	1.90	1.85	1.98	2.43	- 1.84	1.92	31.04
1988	1.97	1.98	2.01	2.06	1.88	2.18	9.73	21.75	20.57	15.20	6.90	3.77	90.00
1989	1.40	1.41	1.83	1.36	1.48	1.98	4.23	3,12	3.25	2.90	2.04	1.88	26.88
1990	1.54	1.42	1.47	2.31	2.33	2.66	3.80	3.80	-	-		· •	

Estimated Discharge at Mohanlalganj

Unit

Catchment area : 4,030 km2

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG.	SEP	OCT	NOA	DEC	Total
			· · · :	Α				420					
1985	-	٠ ـ	_		• •	-	· -	58.44	181.77	217.60	47.09	22.35	
1986	10.49	8.88	5.97	5.52	3.96	4.80	60.85	41.26	23.30	16.13	8.86	2.04	192.05
1987	9.91	7.93	6.92	5.83	4.68	4.12	3.91	3.81	4.08	5.01	3.79	3.96	63.94
1988	4,06	4.08	4.14	4.24	3.87	4.49	20.04	44.81	42.37	31.31	14.21	7.77	185.40
1989	2.88	2.90	3.77	2.80	3.05	4.08	8.71	6.43	6.70	5.97	4.20	3.87	55.37
1990	3.17	2.93	3.03	4.76	4.80	5.48	7.83	7,83	-				

Estimated Discharge at Sataon

Unit

Catchment area : 5,080 km2

						4.1		4					
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
						1.5					en de la composition della com		
1985	-	-	-	-	-	•	_	73.76	229.42	274.64	59.44	28.21	
1986	13.23	11.21	7.54	6.97	4.99	6.06	76.80	52.08	29.41	20.36	11.18	2.57	242.40
1987	12.51	10.01	8.74	7.36	5.90	5.20	4.94	4.81	5.15	6.32	4.78	4.99	80.70
1988	5.12	5.15	5.23	5.36	4.89	5.67	25.30	56.55	53.48	39.52	17.94	9.80	234.00
1989	3.64	3.67	4.76	3.54	3,85	5.15	11.00	8.11	8.45	7.54	5.30	4.89	69.89
1990	4.00	3.69	3.82	6.01	6.06	6.92	9.88	9,88		~	_	_	

Table F.40 Estimate of Delivery of Maurawan Distributary (1/3)

Rabi:1989/1990

		Command	area (ha)	Delivery	(MCM)		ter depth	D1
	Item	CCA	PIA	Actual (1)	Schedule (2)	(m) Actual (5)	Schedule (6)	Remarks
1.	Asiwan Branch at Head	85,511	21,378	131,80	113.00	0.62	0.53	
	(1)Dy & Mr	39,387	9,825	51.87	47.93	0.53	0.49	
	(2)Outlets dis. and losses	-	-	53.33	19.87	: -	-	
	a. Estimate of outlets dis.	13,594	3,420	18.13	16.76	0.53	0.49	1 <i>J</i>
	b.Estimate of losses, (2)-a.	-	-	35.20	3.11	-	•	
	Total	52,981	13,245	105.20	67.80			
2.	Murawan Dy at Head	32,530	8,133	26.60	45.20	0.33	0.56	
	(1)Dy & Mr(upto Lachi Khera Mr)	15,991	3,999	6.17	14.88	0.15	0.37	
	(2)Outlets dis. and losses	_	_	19.36	22.92	-	•	
	a.Estimate of outlet dis	3,665	915	1.37	3.39	0.15	0.37	1_/
	b.Estimate of losses	-	-	17.98	19.54	•	-	
	Murawan Dy							
	(downstream from Nrchk dy)	12,874	3,219	1.07	7.40	0.03	0.23	
	(1)Dy & Mr	7,219	1,806	0.59	3.90	0.03	0.22	
	(2)Outlets dis. and losses	-		0.48	3.50	-	-	
	a.Estimate of outlet dis	5,655	1,413	0.42	3.11	0.03	0.22	1_/
	b.Estimate of losses	_	-	0.06	0.39	-	- :	2

Kharif:1990

	Command a	rea (ha)	Delivery	(MCM)	Unit wa	ter depth(m)
Item	CCA	PIA	Actual	Rabi:1989/1990	Actual	Schedule Remarks
			(1)	(2)	(5)	(6)
1. Asiwan Branch at Head	85,511	20,523	165.30	157.50	0.81	0.77
(1)Dy & Mr	39,387	11,940	69.06	62.15	0.58	0.52
(2)Outlets dis. and losses	-	-	58.74	29.65	-	-
a. Estimate of outlets dis.	13,594	776	4.49	4.04	0.58	0.52 1 <i>_J</i>
b.Estimate of losses, (2)-a.	-	-	54.25		-	-
Total	<u>52.981</u>	12.716	<u>127.80</u>	<u>91.80</u>		
2. Murawan Dy at Head	32,530	7,807	37.50	65.70	0.48	0.84
(1)Dy & Mr(upto Lachi Khera Mr)	15,991	3,838	15.57	18.86	0.41	0.49
(2)Outlets dis. and losses	-	-	21.67	33.13	-	-
a. Estimate of outlet dis	3,665	879	3.57	4.32	0.41	0.49 1_/
b.Estimate of losses	-	-	18.10	28.81	-	-
Murawan Dy						
(downstream from Nrchk dy)	12,874	3,090	0.26	13.71	0.01	0.44
(1)Dy & Mr	9,465	2,599	0.16	8.45	0.01	0.33
(2)Outlets dis. and losses	-		0.10	5.26	-	-
a. Estimate of outlet dis	5,655	1,357	0.08	4.41	0.01	0.33 1_/
b. Estimate of losses		-	0.02	0.85		- 2_/

Note: 1_/:based on the assumption of the same unit depth for Dy & Mr 2_f : based on the assumption of 10 % of the delivery of Dy & Mr

Table F.40 Estimate of Delivery of Maurawan Distributary (2/3)

Comparison of actual and scheduled discharges: Kharif 1990

	Official social	Discharge	(MCM)	Command a	rea (ha)	Unit water Actual	depth schedule
	Offtaking canal	Actual	Schedule	CCA	PIA	(m)	(m)
Asiwam	Branch	165.30	157.50	85,511	20,523	0.81	0.7
	(at Head)	14.				947	
1	Deogaon Dy	6.80	4.80	1,355	325	2.09	1.4
2	Rasulabad Dy	6.80	7,50	4,980	1,195	0.57	0.6
3	Suhani Khera Mr.	0.73	0.55	833	2,200	0.03	0.0
4	Khairanpur Mr.	0.57	0.55	244	59	0.97	0.9
5	Ahamadpur Mr.	0.37	0.55	301	72	0.51	0.7
6	Miyaganj Mr.	0.89	0.55	302	72	1.24	0.7
7	Mauhauli Mr.	7.80	3.80	1,947	467	1.67	0.8
8	Hasanganj Dy.	8.80	8.20	5,600	1,344	0.65	0.6
9	Munsiganj Mr.	0.42	0.55	650	156	0.27	
10	Mustafabad Mr.	4.30	4.60	2,457	590	0.73	0.7
		11.80	13.40	7,043	1,690	0.70	0.7
11	Nyotini Dy	3.30	4.10	4,025	966	0.34	0.4
12	Bhauli Dy			228	55	0.58	1.0
13	Madanpur	0.32	0.55				
14	Ohrapur My.	1.02	0.55	620	149	0.68	0.3
15	Jhalothar Mr.	1.51	0.55	640	640	0.24	0.0
16	Ibrahimpur Mr.	0.43	0.55	818		0.22	0.2
17	Lakhanapur.Mr.	3.40	2.80	1,473	354		
18	Ajgain Dy.	: 2.70	2.60	3,198	768	0.35	0.3
19	Jaitipur Dy	7.10	5.40	2,673	642	1.11	9.0
	Sub-total	69.06	62.15	39,387	11,940	0.58	0.5
20	Outlets(Aswn Br)	58.74	29.65	13,594	776	7.57	3.8
	Total	127.80	91.80	52,981	12,716	1.01	0.7
	Maurawan Dy (at Head)	37.50	65.70	32,530	7,807	0.48	0.8
21	Kusunbhi Mr.	0.20	0.51	160	. 38	0.53	1.3
22	Sahranwa Dy	3.00	3.00	2,368	568	0.53	0.5
23	Khantha Mr.	0.40	0.90	623	150	0.27	0.6
24	Asoha Dy.	2.40	3.10	2,420	581	0.41	0.9
25	Shahpur Dy	6.40		4.982	1,196	0.54	0.4
26	Sandauli Mr.	0.20			67	0.30	0.7
27	Bachaura Mr	1.02		1,032	248	0.41	0.3
28	Para Mr.	0.95		262	63	1.51	1.3
		0.70		2.924	702	0.10	0.3
29	Hiluali Dy						0.6
30	Lakhanpura Mr.	0.30		756	181	0.17	
31	Lachi Khera Mr.	0.00		184	44	0.00	1.1
	Sub-total	15.57	18.86	15,991	3,838	0.41	0.4
32	Outlets(Mrwn Dy)		•	3,665	879	•	
	_Total			19,656	4,717		
	Maurawan Dy			12,874	3,090		, * *
	(at head of						. 42
_	Sataon study area)			0.040		0.01	
33	Narichak Dy	0.10	4.10	3,342	802	0.01	0.5
34	Lotna Mr.	0.00	0.50	150	36	0.00	0.0
35	Bankat Mr	0.00	0.55	805	193	0.00	0.2
36	Bhitargaon Mr.	0.00	0.55	612	147	0.00	0.3
37	Unai Mr.	0.00	0.55	583	140	0.00	0.3
38	Bardar Mr.	0.01	0.55	229	55		
39	Sataon Mr.	0.02	0.55	608	146	0.01	0.3
40	Korihar Mr.	0.01	0.55	487	117	0.01	
41	Hajipur Mr	0.02	0.55	403	97	0.02	0.5
-9 2	Sub-total	0.02	8.45		1,733	0.01	0.4
42	Outlets(Mrwn dy)	V.10	0.43	5,655	1,755	0.01	V.*

Table F.40 Estimate of Delivery of Maurawan Distributary (3/3)

Comparison of actual and scheduled discharges: Rabi 1989/1990

	Offiaking canal	Discharg	e (MCM)	Command a	rea (ha)	Unit water Actual	depth schedule
	Omaking canar	Actual	Schedule	CCA	PIA	(m)	(m)
Asiw	am Branch	131.80	113,00	85,511	21,378	0.62	0.5
	(at Head)						
1	Deogaon Dy	5.10	4.30	1,355	339	1.50	1.2
2	Rasulabad Dy	8.20	7.80	4,980	1,245	0.66	0.6
3	Suhani Khera Mr.	0.34	0.27	833	208	0.16	0.1
4	Khairanpur Mr.	0.46		244	61	0.75	0.4
5	Ahamadpur Mr.	0.49		301	75	0.65	0.3
6	Miyaganj Mr.	0.34	0.27	302	76	0.45	0.3
7	Mauhauli Mr.	6.20		1,947	487	1.27	0.5
8	Hasanganj Dy.	8,40		5,600	1,400		0.3
9	Munsiganj Mr.	0.19	0.27	650	163	0.12	0.1
10	Mustafabad Mr.	4.20	3.60	2,457	614	0.68	0.5
11	Nyotini Dy	7.30	9.60	7,043	1,761	0.41	0.5
12	Bhauli Dy	3.30	3.60	4,025	1,006	0.33	0.3
13	Madanpur	0.19		228	55	0.35	0.4
14	Ohrapur My.	0.61	0.27	620	149	0.41	0.1
15	Jhalothar Mr.	1.31	0.27	640	154	0.85	0.1
16	Ibrahimpur Mr.	0.34	0.27	818	196	0.17	0.1
17	Lakhanapur.Mr.	2.80		1,473	368	0.76	0.6
18	Ajgain Dy.	2.10	2.00	3,198	800	0.26	0.2
19	Jaitipur Dy	0.00	4.80	2,673	668	0.00	0.7
	Sub-total	51.87	47.93	39,387	9,825	0.53	0.4
20	Outlets(Aswn Br)	53.33		13,594	3,420	1.56	0.5
	_ Total	105.20	67.80_	52,981_	_ 13,245	0.79	0.5
	Maurawan Dy (at Head)	26.60	45.20	32,530	8,133	0.33	0.5
21	Kusunbhi Mr.	0.00	0.21	160	40	0.00	0.5
22	Sahranwa Dy	0.00	2.40	2,368	592	0.00	0.4
23	Khantha Mr.	0.00	0.60	623	156	0.00	0.3
24	Asoha Dy.	0.00	3.00	2,420	605	0.00	0.5
25	Shahpur Dy	4.10	5.50	4,982	1,246	0.33	0.4
26	Sandauli Mr.	0.26	0.21	280	70	0.37	0.3
27	Bachaura Mr	0.54		1,032	258	0.21	0.2
28	Рага Мг.	0.79	0.62	262	66	1.20	0.9
29	Hiluali Dy	0.48	1.03	2,924	731	0.07	0.1
30	Lakhanpura Mr.	0.00	0.55	756	189	0.00	0.2
31	Lachi Khera Mr.	0.00	0.21	184	46	0.00	0.4
	Sub-total	6.17		15,991	3,999	0.15	0.3
32	Outlets(Mrwn Dy)	-	_	3,665	915		
	Total			19,656	4,914		
	Maurawan Dy			12,874	3,219		
	(at head of						
	Sataon study area)						
33	Narichak Dy	0.20	2.10	3,342	836	0.02	0.2
34	Lotna Mr.	0.00		150	38	0.00	0.7
35	Bankat Mr	0.18		805	201	0.09	0.1
36	Bhitargaon Mr.	0.01	0.21	612	153	0.01	0.1
37	Unai Mr.	0.05	0.21		146	0.03	0.1
38	Bardar Mr.	0.05	0.21	229	57	0.09	0.3
39	Sataon Mr.	0.10		608	152	0.07	0.1
40	Korihar Mr.	0.00	0.21	487	122		0.1
41	Hajipur Mr	0.00	0.21	403	101	0.00	0.2
	Sub-total	0.59	3.90	7,219	1,806	0.03	0.2
42	Outlets(Mrwn dy)	-	-	5,655	1,413	+	
	Total	_	-	12,874	3,219	- '	

Table F.41 Propsed Roster Discharge of Maurawan Distributary at Head of Sataon Area

Kł	narif seas	on	Unit:cusec		R	abi seasc		Unit;cusec
		Maurawan	Maurawan Dy, at Sataon		No.	Roster starting	Maurawan Dy. at Head	Maurawan dy. at Sataon area
199	^				1989)/90		
1	3-29	_	. ·		1	10-5	_	-
2	4-5		· · · · · · · · · · · · · · · · · · ·		2	10-12	<u>-</u>	_
3	4-12	<u>_</u>		_	3	10-19	_	-
4	4-19	_	· · · · · · · · · · · · · · · · · · ·	-	4	10-26	240	75
5	4-24	240	75		5	11-2	240	75
6	5-3	240	75		6	11-9	240	75
7	5-10		_		7	11-16		· <u>-</u>
8	5-17		-		8	11-23		· <u>-</u>
9	5-24	240	75		9	11-30	240	75
10	5-31	240	75		10	12-7	240	75
11	6-7	240	75		11	12-14	240	75
12	6-14	240	75	142	12	12-21	<u>.</u>	_
13	6-21		A - 1		13	12-28	-	-
14	6-28	· <u>-</u>	· _ ·		14	1-4	240	75
15	7-5	240	75		15	1-11	240	75
16	7-12	240	75		16	1-18	240	75
17	7-19	240	75		17	1-25		-
18	7-26	240	75		18	2-1	.	_
19	8-2			÷	19	2-8	· · · · · ·	. -
20		. -	, <u>-</u>		20	2-15	-	-
21	8-16	240	75	•	21	2-22	-	
22		240	75		22	3-1	240	75
23		240	75		23	3-8	, -	
24		240	75		24	3-15		■.
25		 .	. ·		25	3-22	240	. 75
26		240	75					
27		240	75					
Tota	cusec	3,840	1,200		Tota	cusec	2,640	825
1010	MCM	66	21			MCM	45	14

NOTE
Water Allocation of Maurawan Distributary Command

	Proposed in Maurawan	rigation area Sataon		delivery scl Maurawan S	A Company of the Comp	
	command (ha)	area (ha)	(%)	command a (MCM)	rea (MCM)	(%)
Kharif	7,807	3,090	39	65.7	21	31
Rabi	8,133	3,219	39	45.2	14	31

Table F.42 Summary of Water Balance and Water Source Plan

	Area	Watre S		Diversion	Water I	Deficit		itional Wa				Overall
Sub-project				Require-	D	A	Sai	river pum	p lift	Ground		Deficit
	(ha)	Roster (MCM)		ment (MCM)	Roster (MCM)		Commend (ha)	Unit W.R. (m3/ha)		water (MCM)	adjustmen (MCM)	(MCM)
Sarojini Nagar												
Amausi Dy.									•			
CCA	14,862				*		2,167					
PIA, Kharif	3,567		16.14	22.01	5.37	-5.87	520	6,170	3.21	-		0
PIA, Rebi	3,716		15.42	21,18			542	5,700		3.03		0
.												
Sataon												
Maurawan Dy.	10.041						0.000					
CCA	12,874	40.00	0.10	10.00	7.04	1010	2,822	£ (00	2.00			
PIA, Kharif	3,090		0.19	17.37		-17.18	677	5,620		-	1.24	0
PIA, Rabi	3,219	6.16	0.94	18.09	-11.93	-17.15	706	5,620	3.97		7.96	0
Sursa												
Badaicha Dy.												
CCA	15,671											
PIA, Kharif	3,761	18.62	23.89	27.53	-8.90	-3.64	_	_	_	5.28	3.62	0
PIA, Rabi	3,917		18.96		-10.64		-	•		10.29		0
Marsa Mr.												
CCA	1,642											
PIA, Kharif	394		4.39	2.88	3.62		-	-	-	-	-	0
PIA, Rabi	411	2.74	2.6	2.39	0.35	0.21						0
Purwa												
Purwa Dy.												
CCA	5,300											
PIA, Kharif	1,274	10.73	7.99	8.46	2.27	-0.46	-		_	_	_	0
PIA, Rabi	1,326	7.8	5.32	7.21			•	-	-	-	-	0
	-	-										
Chimyani & Pakara N												
CCA	2,695	0.70			1.00	0.27				0.04	1.05	^
PIA, Kharif	646	3.73	5.37	5.72			-	-	•	0.94		0
PIA, Rabi	673	2.46	4.23	3.91	-1.45	0.32	-	-	-	1.25	0.20	0
Tikar Dy.												
CCA	4,257											
PIA, Kharif	1,021	5.56	4.29	6.78	-1.22	-2.49	-	-	-	0.00	1.22	0
PIA, Rabi	1,063	3.42	3.83	5.78					-	1.97		0
Total	÷											
CCA	57,301						5,152					
PIA, Kharif	13,753	84.84	62.26	90.75	-5.89	-28.50	1,236		7.25	6.22	7.13	0
PIA, Rabi	14,325		51.30			-30.01	1,288		7.29		8.9	0

Table F.43 Design Diversion Water Requirement in Sarojini Nagar Study Area (1/2) (Kharif Cropping)

	Description	Unit	JUN		JUL		AUG		SEP		OCT
	Dosorphion		I	II	1	11	I	II.	I	II	I
A. Pa	ddy (Crop Intensity: 68%)									
	Potential Evapotranspiration	mm/h-month	116	116	75	. 75	81	81	69	69	66
(2)	Crop Coefficient Kc	•	-	1.10	1.14	1.17	1.20	1.20	1.15	•	-
		-	-	-	1.10	1.14	1.17	1.20	1.20	1.15	-
		-	-	~	-	1.10	1.14	1.17	1.20	1.20	1.1.
(3)	Average Kc	· · · -	-	1.10	1.12	1,14	1.17	1.19	1.18	1.18	1.1
(4)	Comsumptive Use of Water	mm/h-month	-	127	83	85	95	96	82	81	7.
(5)	Monthly Rainfall	mm/month	96		130		272		147	-	17
(6)	Effective Rainfall	mm/h-month	38	38	51	51	87	87	58	58	
(7)	Percolation	nım	-	30	31	.31	31	31	30	30	3
	(4) - (6) + (7)	mm/h-month	-	119	63	64	39	40	54	53	10
(8)	Area Index		-	0.33	0.67	1,00	1.00	1.00	1.00	0.67	0.3
(9)	Puddling Water	ກາກ	-	60	60	60	- 20	40	- 54	36	3:
	Net Water Requirement	mm		99	102	124 138	39 43	45	60	39	3′
	Field Requirement	mm	-	110	114	130	43	43	UV.	39	
(12)	Unit Water Requirement	l/sec/ha	-	1.00	1.03	1.25	0.39	0.41	0.54	0.36	0.3
	- at watercourse head		•	1.18	1.21	1.48	0.39	0.48	0.64	0.42	0.3
	- at distributary head lse(Crop Intensity: 22%			1.10	1.21	1.40	0.40	0.40	0.01	0.42	0.0.
		mm/h-month	116	116	75	75	81	81	69	69	
(1)	Potential Evapotranspiration	Hillyn-monai	0.35	0.40	0.80	1.08	1.10	1.03	0.55		
(2)	Crop Coefficient Ke	-	0.55	0.35	0.40	0.80	1.08	1.10	1.03	0.55	_
(à)	Average Kc	_	0.35	0.38	0.77	0.94	1.09	1.07	0.79	0.55	_
(3)	Comsumptive Use of Water	mm/h-month	40	43	57	70	88	86	55	38	_
(4) (5)	Monthly Rainfall	mm/month	96		130		272		147		
	Effective Rainfall	mm/h-month	24	25	36	38	82	82	40	35	_
(6)	(4) - (6)	mm/h-month	16	19	22	32	6	4	15	3	<u>-</u>
(7)	Area Index		0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	
	Pre-Irrigation	mm	25	25	-	-	-	~	_	-	_
(8) (9)	Net Water Requirement	mm	33	44	22	32	6	4	15	1	
	Field Requirement	mm	44	58	29	43	8	6	20	2	
	Unit Water Requirement	l/sec/ha	• •							_	
(11)	- at watercourse head	2/100/114	0.40	0.53	0.26	0.39	0.07	0.05	0.18	0.02	_
	- at distributary head		0.47	0.62	0.31	0.46	0.08	0.06	0.21	0.02	· <u>·</u>
. Oil	Iseeds(Crop Intensity: 10%	}						·.			•
(1)	Potential Evapotranspiration	mm/h-month	116	116	75	75	81	81	69	69	
(2)	Crop Coefficient Kc	-	0.20	0.53	1.12	1.17	1.17	1.16	0.70		
(-)		-	-	0.20	0.53	1.12	1,17	1.17	1.16	0.70	٠.
(3)	Average Kc	-	0.20	0.37	0.83	1.15	1.17	1.17	0.93	0.70	-
(4)	Comsumptive Use of Water	mm/h-month	23	42	61	8.5	95	94	64	48	
(5)	Monthly Rainfall	mm/month	96		130		272		147		
(6)	Effective Rainfall	mm/h-month	20	24	37	40	84	84	42	38	
(-)	(4) - (6)	mm/h-month	. 3	18	25	45	11	10	23	10	· · -
m	Area Index	-	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	
(/)								· -	-		• 🔟
(7) (8)	Pre-Irrigation	mm	25	25	· -	-	•				
(8)	Pre-Irrigation Net Water Requirement	mm mm	25 26	25 43	25	45	11	10	23	5	-
(8) (9)	Net Water Requirement				25 33	45 60	11 14	10 14	23 30	5 7	-
(8) (9) (10)		mm	26	. 43							-
(8) (9) (10)	Net Water Requirement Field Requirement	mm mm	26	. 43							
(8) (9) (10)	Net Water Requirement Field Requirement Unit Water Requirement	mm mm	26 35	43 57	33	60	14	14	30	7	-
(8) (9) (10) (11)	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head	mm mm l/sec/ha	26 35 0.32	43 57 0.52	33 0.30	60 0.54	0.13	14 0.12	30 0.27	7 0.06	
(8) (9) (10) (11)	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head	mm mm l/sec/ha	26 35 0.32	43 57 0.52 0.61	0.30 0.35	0.54 0.64	0.13 0.15	0.12 0.15	30 0.27 0.32	7 0.06 0.07	
(8) (9) (10) (11)	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head	mm mm l/sec/ha	26 35 0.32	43 57 0.52	33 0.30 0.35 0.79	60 0.54	0.13 0.15	0.12 0.15 0.30	30 0.27 0.32	7 0.06 0.07 0.25	
(8) (9) (10) (11)	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head	mm mm I/sec/ha Cropping	26 35 0.32 0.38	43 57 0.52 0.61	0.30 0.35	0.54 0.64	0.13 0.15	0.12 0.15	30 0.27 0.32	7 0.06 0.07	
(8) (9) (10) (11)	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head all Water Requirement in Kharif - at watercourse head	mm I/sec/ha Cropping I/sec/ha	26 35 0.32 0.38	43 57 0.52 0.61	33 0.30 0.35 0.79	0.54 0.64 0.99	0.13 0.15	0.12 0.15 0.30	30 0.27 0.32	7 0.06 0.07 0.25	0.2 0.2
(8) (9) (10) (11) Overa	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head all Water Requirement in Kharif - at watercourse head	mm I/sec/ha Cropping I/sec/ha	26 35 0.32 0.38	43 57 0.52 0.61	33 0.30 0.35 0.79	0.54 0.64 0.99 1.17	0.13 0.15 0.29 0.35	0.12 0.15 0.30	30 0.27 0.32	7 0.06 0.07 0.25	
(8) (9) (10) (11) Overa	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head all Water Requirement in Kharif - at watercourse head - at distributary head	mm I/sec/ha Cropping I/sec/ha I/sec/ha	26 35 0.32 0.38 0.12 0.14	43 57 0.52 0.61 0.85 1.00	33 0.30 0.35 0.79 0.93	0.54 0.64 0.99 1.17	0.13 0.15 0.29 0.35	0.12 0.15 0.30	0.27 0.32 0.43 0.51	0.06 0.07 0.25 0.30	
(8) (9) (10) (11) Overa	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head all Water Requirement in Kharif - at watercourse head - at distributary head 1. Irrigation efficiency	mm I/sec/ha Cropping I/sec/ha I/sec/ha	26 35 0.32 0.38 0.12 0.14	43 57 0.52 0.61 0.85 1.00	33 0.30 0.35 0.79 0.93	0.54 0.64 0.99 1.17 tive Rai	0.13 0.15 0.29 0.35	0.12 0.15 0.30 0.35	30 0.27 0.32 0.43 0.51	7 0.06 0.07 0.25 0.30	0.2
(8) (9) (10) (11) Overa	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head all Water Requirement in Kharif - at watercourse head - at distributary head 1. Irrigation efficiency	mm I/sec/ha Cropping I/sec/ha I/sec/ha	26 35 0.32 0.38 0.12 0.14	43 57 0.52 0.61 0.85 1.00	33 0.30 0.35 0.79 0.93	0.54 0.64 0.99 1.17 tive Rai	0.13 0.15 0.29 0.35	0.12 0.15 0.30 0.35	0.27 0.32 0.43 0.51	7 0.06 0.07 0.25 0.30	0.2
(8) (9) (10) (11) Overa	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head all Water Requirement in Kharif - at watercourse head - at distributary head 1. Irrigation efficiency	mm I/sec/ha Cropping I/sec/ha I/sec/ha Paddy Pulse	26 35 0.32 0.38 0.12 0.14	43 57 0.52 0.61 0.85 1.00	0.30 0.35 0.79 0.93 2. Effect	0.54 0.64 0.99 1.17 tive Rai	0.13 0.15 0.29 0.35 infall Idy	0.12 0.15 0.30 0.35	30 0.27 0.32 0.43 0.51	7 0.06 0.07 0.25 0.30	0.2
(8) (9) (10) (11) Overa	Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head all Water Requirement in Kharif - at watercourse head - at distributary head : 1. Irrigation efficiency - Field application efficiency	mm I/sec/ha Cropping I/sec/ha I/sec/ha Paddy Pulse	26 35 0.32 0.38 0.12 0.14	43 57 0.52 0.61 0.85 1.00	0.30 0.35 0.79 0.93 2. Effect	0.54 0.64 0.99 1.17 tive Rai	0.13 0.15 0.29 0.35 infall Idy R<200 m R=>200 and crop	0.12 0.15 0.30 0.35	30 0.27 0.32 0.43 0.51	7 0.06 0.07 0.25 0.30 9 x R 2 x R +	0.2

Table F.43 Unit Diversion Water Requirement of Sarojini Nagar Area (2/2) (Rabi Cropping)

-	Description	Unit	oct	NOV I	ji	DEC 1	II	JAN L	1[FEB I	II .	AAR 1
)										
(1)	Potential Ryapotranspiration	mm/h-monsh	66	45	45	32	32	39	39	54	54	. 8
(2)	Crop Coefficient Ke	•	•	0.48	0.58	1,10	1,18	1.18	1.16	0.92	0.00	•
	a a	•	•		0.48	0.58	1.10	1,18	1.18	1.16	0.92	
	4 . 12	•	. •	÷		0.48	0.58	1.10	1.18	1.18	1.16	0.9
(3)	Averago Kc		. ·	0.48	0.53	0,72	0.95	1.15	1.17	1.09	1.04	0.9
(4)	Communitive Use of Water	птур-тогар	•	21	24	23	30	44	45	59	56	3
(5)	Monthly Rainfall	maymenth	-	0	_	13	_	27		24	_	3
(6)	Effective Rainfall	thnom-nymm	•	0	0	3	3	7	7	. 7	7	1
	(4) - (6)	man/h-month		21	24	20	27	37	38	51	49	6
(7)	Area Index		•	0.33	0.67	1.00	1.00	1.00	1,00	1.00	0.67	0.3
(8)	Pre-Inigation	mm	•	25	25	• '	•	-	- 1	•	•	• 1
(9)	Not Water Requirement	mm		32	16	20	27	37	38	51	33	2
(10)	Field Requirement	mm .	-	43	21	26	36	49	50	69	44	3
(11)	Unit Water Requirement	l/sec/ha										
	- at watercourse bead			0.39	0.19	0.24	0.32	0.45	0.46	0.62	0.40	0.2
	- at distributery head		•	0.46	0.22	0.28	0.38	0.53	0.54	0.73	0.47	0.3
Date	e (Crop Intensity: 15%							·····				
. rui (1)	Potential Evapotranspiration	nua/p-monty	66	45	45	32	32	39	39	54	54	1
(2)	Crop Coefficient Ke		0.35	0.40	0.80	1,08	1.10	1.03	0.55		_	-
(2)	Crop Coomer in the			0.35	0.40	0,80	1.08	1.10	1.03	0.55		
(3)	Average Kc		0.35	0.375	0.60	0.94	1.09	1.065	0.79	0.55	_	_
(4)	Community Use of Water	เณา/ก-เกอกเก	23	17	27	30	34	41	30	30	_	
	Monthly Rainfall	marymonap	17	0	-	13		27	50	24		
(5)			4	Ö	0		•	7	7	6		
(6)	Effective Rainfall	mm/h-month				3	3	7 34		24	-	
,	(4) - (6)	mm/h-month	19	17	27	26	31		24		-	٠
(7)	Area Index	•	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	•	*
(8)	Pre-Imigation	mm)	25	25		•	•	-		٠	. •	-
(9)	Not Water Requirement	mn	35	42	27	26	31	34	24	12	•	-
(10)	Field Requirement	mm	46	56	36	35	41	45	32	16	-	•
(11)		i/sec/ha					_			- 1	- '	-
	- at watercourse head		0.42	0.50	0.32	0.32	0.37	0.41	0.29	0.14	•	-
	- at distributery head		0.49	0.59	0.38	0.38	0.44	0.48	0.34	0.17		
Oils	oeds (Crop Intensity: 5%)								_		
(1)	Potential Evapotranspiration	mm/h-month	66	45	45	32	32	39	. 39	54	54	
(2)	Crop Coefficient Kc	-	0.20	0.53	1.12	1.17	1.17	1.16	0.70		-	-
	•		_	0.20	0.53	1.12	1.17	1.17	1.16	0.70	-	-
(3)	Average Ke		0.20	0.37	0.83	1.15	1.17	1.17	0.93	0.70		-
(4)	Comsumptive Use of Water	mayn-month	13	16	37	36	37	45	36	38		_
(5)	Mouthly Rainfall	mm/month	17	0		- 13		27		24		
		mm/h-morah	3	0	. 0	3	3	7	7	6	-	-
(6)	Effective Rainfall				37		33	37	29	31		Ť
٠.	(4) - (6)	шиұн-шошһ	10	16		33				0.50	. *	•
(7)	Area Index	•	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	•	-
(8)	Pre-Inignion	HAD	25	25	-	•	٠		• ••	٠.,	-	-
(9)	Net Water Requirement	HEN	30	41	37	33	33	37	29	16	-	. •
(10)	Held Requirement	ten)	40	55	49	43	44	50	38	21	•	-
(11)	Unit Water Requirement	l/scc/na								1.1	•	-
	- at watercourse head		0.36	0.50	0.44	0.39	0.40	0.45	0.35	0.19	•	-
	- at distributary head		0.43	0.59	0.52	0.46	0.47	0.53	0.41	0.22	·	
Veg	ctable (Crop Intensity: 6%)										
(1)	Potential Evapotranspiration	nan/a-month	66	45	45	32	32	39	39	54	54	
(2)	Crop Coefficient Ke		0.37	0.42	0.90	1.05	1.12	1.08	0.74	-	-	+
٠.	•		_	0.37	0.42	0.90	1.05	1.12	1.08	0.74	-	
(3)	Average Kc		0.37	0.40	0.66	0.98	1.09	1.10	0.91	0.74	-	-
(4)	Compareptive Use of Water	dinom-n\max	24	18	29	31	34	42	35	40	-	_
	Monthly Rainfall	men/month	17	0	***	13		27		24	_	_
(5)		•			0		,	7	7	6	-	-
(6)	Effective Rainfall	nm/a-menta	. 4	0		3	3				•	-
_	(4)-(6)	mm/h-month	20	18	29	27	31	35	28	34	-	•
(7)	Area Index	•	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	-	-
(8)	Pre-Irrigation	traci	25	25	-	• .	•			•	-	-
(9)	Not Water Requirement	пип	35	43	29	27	31	35	28	17	•	-
10)	Field Requiremen:	mm	47	57	39	37	41	47	38	22	-	•
(11)	Unit Water Requirement	l/scc/ha									-	-
	- st watercourse head		0.43	0.52	0.36	0.33	0.37	0.42	0.34	0.20	-	-
	- at distributary head		0.50	0.61	0.42	0.39	0.44	0.50	0.40	0.24	-	_:
Port	ge Crops (Crop Intensity 6%)										
(I)	Potential Evapotranspiration	ภ ะก√ก -month	66	45	45	32	32	39	39	54	54	
(2)	Crop Coefficient Kc		0.50	0.80	0.85	0.90	0.93	0.95	0.95	0.95	0.95	-
	•	-		0.50	0.80	0.85	0.90	0.93	0.95	0.95	0.95	0.
(3)	Average Kc	-	0.50	0,65	0.83	0.88	0.92	0.94	0.95	0.95	0.95	O.
(4)	Computation Use of Water	ព្រះស្រា-ពេលវេរិ	33	29	37	28	29	36	37	51	51	
	Monthly Rainfell	manymonth	17	0	-,	13	47	27	٠,	24	٠.	
16)			4	0	0	3	3	7	7	7	7	
	Effective Rainfall	mm/h-month mm/h-month			37					44	44	
			28	29		24	26	29	30			
(5) (6)	(4) - (6)	DRIAM-HOURT		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.
(6) (7)	(4) ~ (6) Area index	-	0.50		-	-	•	•	•	-		-
(6) (7) (8)	(4) - (6) Area index Pre-irrigation	man -	25	25								
(6) (7) (8)	(4) ~ (6) Area index	-	25 39	54	37	24	26	29	30	44	44	
(6) (7) (8) (9)	(4) - (6) Area index Pre-irrigation	man -	25		37 49	24 32	26 34	29 39	30 39	44 59	44 59	
(6) (7) (8) (9) (10)	(4) - (6) Area index Pre-imigation Net Water Requirement	1211) 1221	25 39	54								
(6) (7) (8) (9) (10)	(4) - (6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement	man isan mini	25 39	54								•
(6) (7) (8) (9) (10)	(4) - (6) Area Index Pre-Irrigation Net Water Requirement Field Requirement - at watercourse lead	man isan mini	25 39 52 0.47	54 72 0.65	49 0.44	32 0,29	34 0.31	39 0.35	39 0,36	59 0.54	59 0.54	O.
(6) (7) (8) (9) (10) (11)	(4) - (6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head	nun mm nun 1/sec/ba	25 39 52	54 72	49	32	34	39	39	59	59	O.
(6) (7) (8) (9) (10) (11)	(4) - (6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head at distributary head Water Requirement in Rabi Cr	man mm Veccha	25 39 52 0,47 0,56	54 72 0.65 0.77	0.44 0.52	32 0,29 0,35	34 0.31 0.36	39 0.35 0.42	39 0,36 0.42	0.54 0.63	59 0.54 0.63	0. 0.
(6) (7) (8) (9) (10) (11)	(4) - (6) Area Index Pre-Imigation Net Waster Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Rati Cr - at watercourse head	rran rran rran rran Vocc/ba Opping Vocc/ha	25 39 52 0.47 0.56	54 72 0.65 0.77	0.44 0.52 0.25	32 0,29 0,35 0,27	0.31 0.36 0.34	0.35 0.42 0.43	0,36 0.42 0,41	0.54 0.63 0.50	0.54 0.63 0.30	0. 0.
(6) (7) (8) (9) (10) (11)	(4) - (6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head at distributary head Water Requirement in Rabi Cr	man mm Veccha	25 39 52 0.47 0.56 0.13 0.16	0.65 0.77 0.44 0.51	0.44 0.52 0.25 0.29	32 0,29 0,35	34 0.31 0.36	39 0.35 0.42	39 0,36 0.42	0.54 0.63	59 0.54 0.63	0. 0.
(6) (7) (8) (9) (10) (11)	(4) - (6) Area Index Pre-Imigation Net Waster Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Rati Cr - at watercourse head	rran rran rran rran Vocc/ba Opping Vocc/ha	25 39 52 0.47 0.56 0.13 0.16	54 72 0.65 0.77	0.44 0.52 0.25 0.29	32 0,29 0,35 0,27	0.31 0.36 0.34	0.35 0.42 0.43	0,36 0.42 0,41	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.
(6) (7) (8) (9) (9) (10) (11)	(4)-(6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Rabi Cr - at watercourse head - at distributary head 1. Irrigation efficiency	mm mm l/sec/ba l/sec/ba l/sec/ha l/sec/ha	25 39 52 0.47 0.56 0.13 0.16	0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29	32 0,29 0,35 0,27	0.31 0.36 0.34	0.35 0.42 0.43	0,36 0.42 0,41	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.
(6) (7) (8) (9) (10) (11)	(4) - (6) Area Index Pre-Irrigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Ratis Cr - at watercourse head - at distributary head - at distributary head - at distributary head	men mm l/sec/ba opping l/sec/ha l/sec/ha	25 39 52 0.47 0.56 0.13 0.16	0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29 Rainfall for paddy	0,29 0,35 0,27 0,31	0.31 0.36 0.34 0.40	0.35 0.42 0.43 0.51	0,36 0,42 0,41 0,49	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.
(6) (7) (8) (9) (10) (11)	(4)-(6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Rabi Cr - at watercourse head - at distributary head 1. Irrigation efficiency	mm l/sec/ba l/sec/ba l/sec/ha l/sec/ha l/sec/ha l/sec/ha	25 39 52 0.47 0.56 0.13 0.16	0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29 Rainfall for paddy	32 0,29 0,35 0,27 0,31	34 0.31 0.36 0.34 0.40	39 0.35 0.42 0.43 0.51	39 0.36 0.42 0.41 0.49	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.
(6) (7) (8) (9) (9) (10) (11)	(4)-(6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Rabi Cr - at watercourse head - at distributary head 1. Irrigation efficiency	men men l/sec/ha l/sec/ha l/sec/ha l/sec/ha l/sec/ha l/sec/ha l/sec/ha	25 39 52 0.47 0.56 0.13 0.16 0.75 0.75	54 72 0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29 Rainfall for paddy Re	32 0,29 0,35 0,27 0,31 <200 mm	34 0.31 0.36 0.34 0.40	0.35 0.42 0.43 0.51	39 0.36 0.42 0.41 0.49	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.
(6) (7) (8) (9) 10) 11)	(4)-(6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Rabi Cr - at watercourse head - at distributary head 1. Irrigation efficiency	men men l/sec/ba Opping l/sec/ha l/sec/ha Wheat Pulse Vogetable	25 39 52 0.47 0.56 0.13 0.16 0.75 0.75 0.75	54 72 0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29 Rainfall for paddy Refor upland	32 0,29 0,35 0,27 0,31 200 mm	34 0.31 0.36 0.34 0.40	39 0.35 0.42 0.43 0.51 ER=0.79 x ER=0.22 x	39 0.36 0.42 0.41 0.49	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.
(6) (7) (8) (9) 10) 11)	(4) - (6) Area Index Pre-Imigation Net Waster Requirement Field Requirement Unit Waster Requirement - at wastercourse head - at distributary head Waster Requirement in Rabi Cr - at wastercourse head - at distributary head 1. Irrigation efficiency - Field application efficiency	men men l/sec/ha l/sec/ha l/sec/ha l/sec/ha l/sec/ha l/sec/ha l/sec/ha	25 39 52 0.47 0.56 0.13 0.16 0.75 0.75	54 72 0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29 Rainfall for paddy Refor upland	32 0,29 0,35 0,27 0,31 200 mm	34 0.31 0.36 0.34 0.40	39 0.35 0.42 0.43 0.51 ER=0.79 x ER=0.22 x	39 0.36 0.42 0.41 0.49	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.
(6) (7) (8) (9) 10) 11)	(4) - (6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Ratis Cr - at watercourse head - at distributary head 1. Irrigation efficiency - Field application efficiency - Conveyance efficiency	men men l/sec/ba Opping l/sec/ha l/sec/ha Wheat Pulse Vogetable	25 39 52 0.47 0.56 0.13 0.16 0.75 0.75 0.75 0.75	54 72 0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29 Rainfall for paddy Refor upland	32 0,29 0,35 0,27 0,31 200 mm	34 0.31 0.36 0.34 0.40	39 0.35 0.42 0.43 0.51 ER=0.79 x ER=0.22 x	39 0.36 0.42 0.41 0.49	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.
(6) (7) (8) (9) 10) 11)	(4) - (6) Area Index Pre-Imigation Net Waster Requirement Field Requirement Unit Waster Requirement - at wastercourse head - at distributary head Waster Requirement in Rabi Cr - at wastercourse head - at distributary head 1. Irrigation efficiency - Field application efficiency - Conveyance efficiency Field channel	men men l/sec/ba l/sec/ha l/sec/ha l/sec/ha l/sec/ha Vecha l/sec/ha Vocate Pulse Oilsecds Vogetable Porage Crop	25 39 52 0.47 0.56 0.13 0.16 0.75 0.75 0.75 0.75 0.75	54 72 0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29 Rainfall for paddy Refor upland	32 0,29 0,35 0,27 0,31 200 mm	34 0.31 0.36 0.34 0.40	39 0.35 0.42 0.43 0.51 ER=0.79 x ER=0.22 x	39 0.36 0.42 0.41 0.49	0.54 0.63 0.50	0.54 0.63 0.30	0. 0.
(6) (7) (8) (9) (10) (11)	(4) - (6) Area Index Pre-Imigation Net Water Requirement Field Requirement Unit Water Requirement - at watercourse head - at distributary head Water Requirement in Ratis Cr - at watercourse head - at distributary head 1. Irrigation efficiency - Field application efficiency - Conveyance efficiency	men men l/sec/ba Opping l/sec/ha l/sec/ha Wheat Pulse Vogetable	25 39 52 0.47 0.56 0.13 0.16 0.75 0.75 0.75 0.75	54 72 0.65 0.77 0.44 0.51 2. Effective	0.44 0.52 0.25 0.29 Rainfall for paddy Refor upland	32 0,29 0,35 0,27 0,31 200 mm	34 0.31 0.36 0.34 0.40	39 0.35 0.42 0.43 0.51 ER=0.79 x ER=0.22 x	39 0.36 0.42 0.41 0.49	0.54 0.63 0.50	0.54 0.63 0.30	0. 0. 0.

Table F.44 Unit Diversion Water Requirement of Sataon Area (1/2) (Kharif Cropping)

	The second secon		77757		1711	C1412217122000	ATIO		CED		OCT
	Description	Unit	JUN I	II	JUL	п	AUG I	II	SEP	II	OCT
A Pa	ddy (Crop Intensity: 68%)		1.1			 -				
	Potential Evapotranspiration	mm/h-month	112	112	102	102	94	94	80	80	68
(2)	Crop Coefficient Ke	•	· •	1.10	1.14	1.17	1.20	1.20	1.15	." - √:	
		' -	-	3 P	1.10	1.14	1.17	1.20		1.15	-
	e de la granda de la companya de la	-	+ .			1.10	1.14	1.17	1.20	1.20	1.15
(3)	Average Kc	- '	•.	1.10	1.12	1.14	1.17	1.19	1.18	1.18	1.15
(4)	Comsumptive Use of Water	mm/h-month	. .	123	114	115	110	112	94	93	78
(5)	Monthly Rainfall	mm/month	45		192		315		227		2
(6)	Effective Rainfall	mm/h-month	18	18	76	76	92	92	82	82	1
(7)	Percolation	mm	-	- 30	31	31	31	31	30	30	31
	(4) - (6) + (7)	mm/h-month		135	69	71	49	51	42	41	108
(8)	Area Index	• -	₹.	0.33	0.67	1.00	1.00	1.00	1.00	0.67	0.33
(9)	Puddling Water	mm		60	60	60	- 40		42	-	26
•	Net Water Requirement	mm,	-	105	106	131	49 55	51 57	42 47	28 31	36 40
	Field Requirement	mm	- .	116	118	145	. 33	31	47	21	41.
(12)	Unit Water Requirement	l/sec/ha	-	1.06	1.07	1 22	0.50	0.53	0.42	0.28	0.36
	- at watercourse head		-	1.05	1.07	1.32	0.50	0.52	0.42	0.33	0.42
	- at distributary head	:		1.24	1.26	1.55	0.39	0.01	0.50	0.33	0.42
	lse(Crop Intensity: 22%)	113	112	102	102	94	94	80	80	68
(1)	Potential Evapotranspiration	mm/n-month	112 0.35	0.40	0.80	1.08	1.10	1.03	0.55	- 00	
(2)	Crop Coefficient Kc	-	0.33	0.40	0.40	0.80	1.08	1.10	1.03	0.55	
(4)	.		0.35	0.33	0.40	0.80	1.08	1.07	0.79	0.55	
. (3)	Average Kc Comsumptive Use of Water	- nm/h-month	39	42	78	95	102	100	63	44	-
(4)	♣ ,	mm/month	45	7.	192	,,,	315	100	227	• • •	2
(5)	Monthly Rainfall Effective Rainfall	mm/h-month	12	12	57	61	99	99	62	56	
(6)		mm/h-month	27	30	21	35	3	2	0	. 0	
(2)	(4) - (6)	manyn-monut	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	
(7)	Area Index		25	25	1.00	1,00	1.00	1.00	1.00	0.50	_
(8)	Pre-Irrigation	mm	39	55	21	35	3	2	Ó	0	_
(9)	Net Water Requirement	mm	52	73	28	46	4	2	ő	0	_
(10)	5	mm 1/sec/ha	32	13	. 20	40	*			·	
(11)	Unit Water Requirement - at watercourse head	1/SEC/11a	0.47	0.67	0.26	0.42	0.04	0.02	0.00	0.00	٠
	- at distributary head		0.55	0.78	0.30	0.50	0.05	0.02	0.00	0.00	_
<u>C 0</u>	lseeds(Crop Intensity: 10%	7	0.55	0.70							
(1)	Potential Evapotranspiration	mm/h-month	112	112	102	102	94	94	80	80	68
(2)	Crop Coefficient Kc	-	0.20	0.53	1.12	1.17	1.17	1.16	0.70	-	
(2)	Czop Coomown zw	_	-	0.20	0.53	1.12	1.17	1.17	1.16	0.70	_
(3)	Average Kc	- - 1	0.20	0.37	0.83	1.15	1.17	1.17	0.93	0.70	
(4)	Comsumptive Use of Water	mm/h-month	22	41	84	116	110	110	74	56	
(5)	Monthly Rainfall	mm/month	45		192		315		227		2
(6)	Effective Rainfall	mm/h-month	10	12	58	64	101	101	66	60	-
(4)	(4) - (6)	mm/n-month	13	29	25	52	9	8	. 8	0	-
(7)	Area Index		0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	
(8)	Pre-Irrigation	mm	25	25		-	<u> -</u> .	-	٠, .	-	-
(9)	Net Water Requirement	mm	31	54	25	52	9	8	. 8	0	-
	Field Requirement	mm	42	72	34	69	11	11	11	0	-
	Unit Water Requirement	1/sec/ha		4.							
` ′	- at watercourse head		0.38	0.65	0.31	0.63	0.10	0.10	0.10	0.00	-
	- at distributary head	·	0.45	0.77	0.36	0.74	0.12	0.12	0.12	0.00	
	1) West Description Vhee's	Cropping						-			
Overa	an water Kedunement hi khani			0.93	0.82	1.05	0.36	0.37	0.30	0.19	0.24
Overa	all Water Requirement in Kharif - at watercourse head	l/sec/ha	0.14	0.55	0.02						0.29
Overa			0.14	1.09	0.96	1.24	0.42	0.43	0.35	0.22	0.2
Overa	- at watercourse head	1/sec/ha					0.42	0.43	0.35	0.22	0.23
	- at watercourse head - at distributary head	1/sec/ha				1.24		0.43	0,35	0.22	0.2
	- at watercourse head - at distributary head : 1. Irrigation efficiency	l/sec/ha l/sec/ha	0.17		0.96 2. Effec	1.24	infall	0.43	0.35	0.22	0.2
	- at watercourse head - at distributary head	l/sec/ha l/sec/ha	0.17	1.09	0.96 2. Effec	1.24 tive Ra for pac	infall		0.35 ER=0.7		
	- at watercourse head - at distributary head : 1. Irrigation efficiency	l/sec/ha l/sec/ha Paddy	0.17	1.09 0.90	0.96 2. Effec	1.24 tive Ra for pac	infall Idy	m		9 x R	
	- at watercourse head - at distributary head : 1. Irrigation efficiency - Field application efficiency	l/sec/ha l/sec/ha Paddy Pulse	0.17	1.09 0.90 0.75	0.96 2. Effec	1.24 etive Ra for pac	infall Idy R<200 m R=>200	um m	ER=0.7	9 x R	
,. .	- at watercourse head - at distributary head : 1. Irrigation efficiency - Field application efficiency - Conveyance efficiency	l/sec/ha l/sec/ha Paddy Pulse	0.17	1.09 0.90 0.75	0.96 2. Effec	1,24 etive Ra for pace	infall Idy R<200 m R=>200 land crop	m mm	ER=0.7	9 x R 2 x R +	
	- at watercourse head - at distributary head : 1. Irrigation efficiency - Field application efficiency	l/sec/ha l/sec/ha Paddy Pulse	0.17	1.09 0.90 0.75 0.75	0.96 2. Effec	1,24 etive Ra for pace	infall Idy R<200 m R=>200 land crop	m mm	ER=0.7 ER=0.2	9 x R 2 x R +	

Table F.44 Unit Diversion Water Requirement of Sataon Area (2/2) (Rabi Cropping)

Description	Unit	OCT	NOV	11	DEC	li .	JAN I	<u> </u>	FEB	<u>M</u>	IAR I
Wheat (Crop Intensity: 68%	}				!				***************************************		
(1) Potential Evapotranspiration		68	47	47	35	35	38	38	48	48	7
(2) Crop Coefficient Ke	-	•	0.48	0.58	1.10	1.18	1.18	1.16	0.92	*	•
	- '.	•	•	0.48	0.58	1.10	1.18	1.18	1.16	0.92	-
* * * <u>* * * * * * * * * * * * * * * * </u>	. •	•			0.48	0.58	1.10	1.18	1.18	1.16	0.9
(3) Average Ke		•	0.48	0.53	0.72	0.95	1.15	1.17	1.09	1.04	0.9
	mm/h-month	, ba	23	2.5	25	33	43	44	52	50	7
(5) Monthly Rainfall	must mount	78	2	1	7	2	42 11	11	5 2	2	
(6) Effective Rainfall	mayla month	•	1 22	24	2 23	31	32	33	51	48	7
(4) - (6)	man/n-month	-	0.33	0.67	1,00	1.00	1.00	1.00	1.00	0.67	0.3
(7) Area Index (8) Pre-Irrigation	nm		25	25		-	2.00	-		-	-
(9) Not Weter Requirement	mm	-	32	16	23	31	32	33	51	32	2
10) Pield Requirement	mm		43	22	31	41	43	44	67	43	3
11) Unit Water Requirement	Vaccfna										
at watercourse head	******	4	0.39	0.20	0.28	0.38	0.39	0.40	0.61	0.39	0.2
- at distributary head		<u> </u>	0.46	0.23	0.33	0.44	0.46	0.47	0.72	0.46	0,3
, Pulse (Crop Intensity: 15%)										
(1) Potential Evapotranspiration	mm/h-month	68	47	47	35	35	38	38	48	48	7
(2) Crop Coefficient Ke	•	0.35	0.40	0.80	1.08	1.10	1.03	0.55	•	-	-
	-	-	0.35	0.40	0.80	1.08	1.10	1.03	0.55	-	-
(3) Average Kc	•	0.35	0.38	0,60	0.94	1.09	1.07	0.79	0.55	•	-
(4) Communitive Use of Water	mm/h-month	24	18	28	32	38	40	30	26	-	•
(5) Monthly Rainfall	thromymen	78	2		7	_	42		5		
(6) Effective Rainfall	mm/n-month	17	0	1	2	2	11	10	1	•	-
(4) - (6)	mm/h-month	7	17	28	31	36	29	20	25	-	•
(7) Area Index	·	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50		-
(8) Pro-Inigation	mm	25	25	28	31	36	29	20	13		-
(9) Not Water Requirement	mm	28 38	42 56	28 37	31 41	-50 48	39	25	17	-	-
10) Field Requirement	mm Maccha	20	30	31	41	40	37	49	1,		
11) Unit Water Requirement	l/scc/ha	0.34	0.51	0.33	0.37	0.43	0.35	0.24	0.15		-
- at watercourse head - at distributary head		0.41	0.60	0.39	0.37	0.51	0.41	0.28	0.13		_
)	0.71	4.00		J. 7 7		V-7-4			·	
1) Potential Evapotranspiration		68	47	47	35	35	38	38	48	48	7
(1) Programma Evapoum spiratour (2) Crop Coefficient Ke	terring	0.20	0.53	1.12	1.17	1.17	1.16	0.70			'
(z) Crop Connection	•	-	020	0.53	1.12	1.17	1.17	1.16	0.70	-	-
3) Average Ko	_	0.20	0.37	0.83	1.15	1.17	1.17	0.93	0.70	-	-
(4) Comsumptive Use of Water	mm/h-mouth	14	17	39	40	40	44	35	34	٠	
5) Monthly Rainfall	mm/month	78	2		7		42		5		
6) Effective Rainfall	mm/b-month	14	0	1	2	2	11	10	1		-
(4) - (6)	питућ-посић	0	17	38	38	38	32	24	32	-	-
7) Area Index	-	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	-	-
(8) Pre-Irrigation	man	25	25	• .	-	-	•	-			-
(9) Not Water Requirement	mm	25	42	38	38	38	32	24	16	-	٠
10) Field Requirement	mm	33	-56	51	50	51	43	33	21	-	•
11) Unit Weter Requirement	l/sec/ha					0.1-	A 4-	0.00	000	-	•
- at watercourse head		0.30	0.50	0.46	0.45	0.46 0.55	0.39	0.30 0.35	0.20 0.23	:	-
- et distributary head		0.36	0.59	0.54	0.53	دد.	0.46	V-J.J	0.23		
Vegetable (Crop intensity: 6% 1) Potential Evapotranspiration) mm/h-month	68	47	47	35	35	38	38	48	48	
(1) Prosenti avaporampiration (2) Crop Coefficient Ke		0.37	0.42	0.90	1.05	1.12	1.08	0.74	. ~~		_
(m) whole constitution is the		-	0.37	0.42	0.90	1.05	1.12	1.08	0.74	-	_
(3) Average Ke		0.37	0.40	0.66	0.98	1.09	1.10	0.91	0.74		-
(4) Communities Use of Water	mm/h-month	25	19	31	34	37	41	34	36	-	-
5) Monthly Rainfall	mm/month	78	2		7		42		5		
6) Effective Rainfall	maryh-month	17	â	1	2	2	ii	10	1	-	-
(4) - (6)	manyh-month	8	. 18	30	32	35	30	24	34	-	-
7) Area Index		0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	-	
8) Pre-brigation	tiato	25	25	-		•	-	-	-	-	-
9) Net Water Requirement	tran	29	43	30	32	35	30	24	17	-	-
10) Field Requirement	mm	39	57	41	42	47	40	32	23	-	-
11) Unit Water Requirement	l/sec/ha			_						-	-
- at watercourse bead		0.35	0.52	0.37	0.38	0.43	0.37	0.29	0.21	•	•
• at distributary head		0.41	0.61	0.43	0.45	0.51	0.43	0.34	0.24	-	
)	,		477		3.5	20	20	40	48	
1) Potential Evapotranspiration	mmyn-manth	68	47	47	35	35	38	38	48 0.95	48 0.95	
2) Crop Coefficient Ke	-	0.59	0.80	0.85	0.90	0.93	0.95	0.95 0.95	0.95	0.95	0.9
m 4 V-	-	0.50	0.50	0.80	0.85 0.88	0.90 0.92	0.93 0.94	0.95	0.95	0.95	0.9
3) Average Ke	unavla-monda	0.50 34	0.65	0.83 39	0.88 30	32	35	36	0.93 46	46	0.5
	mm/month	34 78	31 2	-37	30 7	32	33 42	<i></i>	5	40	•
(5) Monthly Rainfall(6) Effective Rainfall	manylasonan manyla-month	19	1	1	2	2	11	11	2	2	
(4) - (6)	mm/p-montp	15	30	38	28	30	25	25	44	44	
7) Area index	- MINTE-ILANIES	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.
8) Pre-Irrigation	nan	25	25	-	1.00	-	1.00		-		-
Net Water Requirement	HED HED	33	55	38	28	30	25	25	44	44	
9) Held Requirement	1007	. 43	73	51	38	40	33	33	59	59	- 2
10) Pieta Requirement 11) Unit Water Requirement	l/scc/ha	. 44	.,		,,,,						
	~***** =	0.39	0.67	0.46	0.34	0.36	0.30	0.30	0.53	0.53	0.4
		0.46	0.78	0.54	0.40	0.42	0.35	0.36	0.63	0.63	0.
- at watercourse head											
- at watercourse head - at distributary head	Cromino		0.44	0.26	0.31	0.39	0.38	0.36	0.49	0.30	0.3
- at watercourse head - at distributary head werall Water Requirement in Rabi		0.11	0.44		0.37	0.46	0.44	0.42	0.58	0.35	0.3
at watercourse bead at distributary head byerall Water Requirement in Rabi at watercourse head	Vsec/ha	0.11 0.13		0.30	0.31						
at watercourse head at distributary head twerall Water Requirement in Rabi at watercourse head at distributary head		0.13	0.52 . Effective		0.31						
at watercourse head at distributary head werall Water Requirement in Rabi at watercourse head at distributary head oto 1. Irrigation efficiency	Vscc/ha Vscc/ha	0.13	0.52 . Effective		0.57						
at watercourse head at distributary head verall Water Requirement in Rabi at watercourse head at distributary head	Vsec/ha Vsec/ha Wheat	0.13	0.52 . Effective	Rainfall for paddy	<200 mm		R=0.79 x l	R			
at watercourse head at distributary head werall Water Requirement in Rabi at watercourse head at distributary head oto 1. Irrigation efficiency	Vsec/ha Vsec/ha Wheat Pulse	0.13 0.75	0.52 . Effective	Rainfall for paddy R							
at watercourse head at distributary head werall Water Requirement in Rabi at watercourse head at distributary head oto 1. Irrigation efficiency	Vsec/ha Vsec/ha Wheat Pulse Oilseeds	0.13 0.75 0.75	0.52 . Effective	Rainfall for paddy R	<200 mm =>200 mm		R=0.79 x l				
at watercourse head at distributary head werall Water Requirement in Rabi at watercourse head at distributary head oto 1. Irrigation efficiency	Vsec/ha Vsec/ha Wheat Pulse Oilseeds	0.13 0.75 0.75 0.75 0.75 0.75	0.52 . Effective	Rainfall for paddy R R for upland	<200 mm =>200 mm	į	R=0.79 x l R=0.22 x l				
at watercourse head at distributary head verall Water Requirement in Ratif at watercourse head at distributary head oto 1. Irrigation efficiency	Vsec/ha Vsec/ha Wheat Pulse Oilseeds Vegetable	0.13 0.75 0.75 0.75 0.75 0.75	0.52 . Effective	Rainfall for paddy R R for upland	<200 mm =>200 mm crop	į	R=0.79 x l R=0.22 x l				

Table F.45 Unit Diversion Water Requirement of Sursa Area (1/2) (Kharif Cropping)

Description	Unit	JUN		JUL		AUG		SEP		oct	
Description		I	П	I	11	1	ŋ	I	II	I	II
Paddy (Crop Intensity:	58%)			**	- 0] 					**	
 Potential Evapotranspire 	ution mm/n-month	96	96	79	79	76	76	65	. 65	55	:
(2) Crop Coefficient Kc	. •		1.10	1.14	1.17	1.20	1.20	1.15 1.20	1.15	•	-
	•	• .	- '	1.10	1,14 1,10	1.17	1.20	1.20	1.13	1.15	٠
	•		1.10	110	1.10	1.17		1.18	1.18	1.15	•
(3) Average Kc			1.10	1.12 88	90	89	1.19	76	76	63	-
(4) Comsumptive Use of W			106		90	266	. 70	144	70	. 03	-
5) Monthly Rainfall	mm/month	82	-	173			0.0	57	57		
(6) Effective Rainfall	nm/h-month	32	32	68	68	86	86			0	-
7) Percolation	mm	•	30	31	31	31	31	30	30	31	-
(4) - (6) + (7)	mm/h-mouth		103	51	52	34	35	49	49	. 94	-
8) Area Index		•	0.33	0.67	1.00	1.00	1.00	1.00	0,67	0.33	•
9) Puddling Water	mm	•	60	60	60	•	•	• •	•	٠	-
10) Net Water Requirement	mm		94	94	112	34	. 35	49	33	31	. ~
11) Field Requirement	mm .	-	105	105	125	37	39	55	36	35	•
12) Unit Water Requirement	t l/sec/na		250								*
- at watercourse head			0.95	0.95	1.13	0.34	0.35	0.50	0.33	0.31	-
- at distributary head			1.12	1.12	1,33	0.40	0.42	0.59	0.39	0.37	
Pulse(Crop Intensity:	22%)	.,	- T					T41 (4)	3.77		
1) Potential Evapotranspira		96	96	79	79	76	76	65	65	55	
2) Crop Coefficient Ke		0.35	0.40	0.80	1.08	1.10	1.03	0.55		-	
-, brill continue			0.35	0.40	0.80	1.08	1.10	1.03	0.55		•
3) Average Kc	•	0.35	0.38	0.77	0.94	1.09	1.07	0.79	0.55		
 Average &c Comsumptive Use of W 	ater mm/n-month	34	36	61	74	83	. 81	51	35		-
	mm/month	82		173		266		144			
	mm/h-month	20	20	48	. 51	79	79	38	34	-	
	mm/n-monui mm/n-monui	14	16.	. 13	23	4	2	13	2	-	-
(4) - (6)	mm/n-monui	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50		
7) Area Index		25	25	1.00							
8) Pre-Irrigation	m m				22	4	٠,	13	1		
9) Net Water Requirement	A CONTRACTOR OF THE CONTRACTOR	32	41	13	23	5	2	17	1	-	•
10) Field Requirement	mm	43	55	17	31		3	. 17	1	٠	•
Unit Water Requirement	ı l/scc/ha			٠		0.00			0.01		
 at watercourse head 		0.39	0.50	0.16	0.28	0.05	0.03	0.16	0.01	-	-
- at distributary head		0.46	0.58	0.19	0.33	0.05	0.03	0.18	0.01		
Oilseeds(Crop Intensity:	10%)										
1) Potential Evapotranspira	ation mm/n-month	96	96	79	79	76	76	65	65	55	
2) Crop Coefficient Kc		0.20	0.53	1.12	1,17	1.17	1.16	0.70	••	7	-
	•	•	0.20	0.53	1.12	1.17	1.17	1.16	0.70	-	-
3) Average Kc		0.20	0.37	0.83	1.15	1.17	1.17	0.93	0.70		-
(4) Comsumptive Use of W	ater mm/h-month	19	35	. 65	∞90	89	89	60	45	· -	-
5) Monthly Rainfall	mm/month	82		173	4.5	266		144		0	
(6) Effective Rainfall	mm/h-month	16	20	49	54	81	81	40	37	-	-
(4) - (6)	mm/h-month	3	15	16	36	8	8	20	9	•	~
7) Area Index		0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50		
(8) Pre-Irrigation	mm	25	25		-		•	•	•	-	+
		26	40	16	36	8	8	20	4	_	_
 Net Water Requirement Field Requirement 	mm	35	54	22	49	11	10	27	6	-	
 Unit Water Requirement 					.,			-			
	1/800/на	0.32	0.49	0.20	0.44	0.10	0.09	0.24	0.05		_
- at watercourse head			0.57		0.52	0.10	0.11	0.29	0.06	1	_
- at distributary head	100	0.38	0.57	0.23	0.32	0.11			0.00		
Sugercane (Crop Intensity:	10%)	~	n.c	: 79	79	76	76	65	65	55	
1) Potential Evapotranspira	ution mm/h-month	96	96								
2) Crop Coefficient Kc	•	0.85	0.90	0.97	1.02	1.08	1.11	1.14	1.15	1.15	1.
200	•	0.78	0.85	0.90	0.97	1.02	1.08	1.11	1.14	1.15	1.
3) Average Kc		0.82	0.88	0.94	1.00	1.05	1,10		1.15	1.15	1
Comsumptive Use of W		78	84	74	79	80	83	73	74	63	
5) Monthly Rainfall	mm/month	82		173		266		144		. 0	
6) Effective Rainfall	mm/n-month	25	26	51	52	78	79	42	43	0	
(4) - (6)	mm/n-month	53	58	23	27	2	4	30	31	63	
7) Area Index	•	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
8) Pre-Irrigation	mm			. •			-		•		-
9) Net Water Requirement		53	58	23	27	. 2	. 4	30	31	63	
0) Field Requirement	mm	70	. 77	. 31	36	2	5	40	42	84	
Unit Water Requirement					. 5	_				s 5, 1	
- at watercourse head	- Account	0.64	0.70	0.28	0.33	0.02	0.05	0.37	0.38	0.77	0
- at distributary head		0.75	0.83	0.33	0.38	0.02	0.06	0.43	0.44	0.90	0
	Kharif Cronsins		2.03		2.00						
erali Water Requirement in		0.18	0.85	0.66	0.83	0.22	0.23	0.42	0.27	0.34	0
- at watercourse head	l/sec/ha				0.98	0.26		0.50	0.32	0.34	0
at distributary head	l/sec/ha	0.21	1.00	0.78			9.21	, 0.30	U.34	0.39	
se: 1. Imigation efficiency	75. 1			2. Effecti							
 Field application effi 			0.90		for padd	•		TID ASS	10		
1	Pulse		0.75			<200 mm		ER≈0.79			
•	Oilsceds).75			k=>200 m	m	ER=0.22	x R + 144		
	Sugercane	. ().75	-	for uplar		*				
- Conveyance efficience	y .				F	R=0.2'x I	₹^0.95 .	x Cu^0.31			
- CONTROJENCO CITIVIONO											
Field channel	* **	(0.85								

Table F.45 Unit Diversion Water Requirement of Sursa Area (2/2) (Rabi Cropping)

Description		OCT	YON	Ш	DEC 1		JAN	11	IV B	TI.	MAR	I	APR.	<u> </u>	MAY		אעז ו
. Wheat (Crop Intensity: 58% 1) Potential Evapotranspiration	nowb mooth	55	44	44	28	28	30	30	39	39	65	65	85	85	94	94	
2) Crop Coefficient Ke		٠,	0.48	0.58	1.10	1.18	1.18	1.16	0.92	•	•		,	,	•		
	•	•	•	0.48	0.58 0.48	1.10 0.38	1.18	1.18 1.18	1.16	0.92 1.16	0.92	•	-	•	•	•	
3) Average Ke		·	0.18	0.53	0.72	0.95	1.15	1.17	1.09	1.04	0.92						
f) Communitive Use of Water	EDITAL - EDOCAD	٠.	31	23	10	17	34	3\$	42	41	60		:	-	:	•	
5) Monthly Rainfall 6) Effective Rainfall	mustracety	. •	. 0	0	0	0	48 12	12	22 6	6	0	_	2		0	_	82
(4) - (6)	mach month	- 2	21	23	20	27	22	23	36	35	60					-	-
7) Area lodex	·	•	0.33	0.67	1.00	1.00	1.00	1.00	1.00	0.67	0.33	•	•		•	•	٠
8) Pre-inigation 9) Net Water Requirement	0000 0000	:	. 25 32	25 15	20	27	22	23	36	23	20	:		:	:	:	-
0) Held Requirement	(DG)	•	43	20	27	36	30	30	48	31	27			-	•		
1) Unit Water Requirement	l/sec/ba		039	0.19	0.24	0.32	0.27	0.28	0.44	0.28	0.24						
- at watercourse bead - at distributary bead		:	0.46	0.19	0.29	0.32	0.32	0.32	0.44	033	0.24					:	-
Pulse (Crop Interesty: 15%)			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,													
l) Petentiai Evapotranspiration	mayn-moonp	55 035	44 0.40	44 0.80	28 1.08	28 1.10	30 1.03	30 0.55	39	39	65	65	85	85	94	91	
2) Crop Coofficient Ke			0.35	0.40	0.80	1.08	1.10	1.03	0.55		÷			:			
3) Average Ke		0.35	0.38	0.60	0.94	1.09	1.07	0.79	0.55	-	-	-			-		
Consumptive Use of Water Manuful Pain full	manymonesp manya-monesp	19	16	26	26 0	- 31	31 48	23	21 22	-	٠.	•		•	ô	•	87
5) Moothly Rainfall 6) Effective Rainfall	estra month	Ö	ő	0	ŏ	0	12	10	5	-	. *		•				- 0,
(4) - (6)	mayb-month	19	16	26	26	31	20	13	17		-	-		• .	-	•	
Area lodes		0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	٠	•	-	-	-	•	-	•
l) Pre-inigation J) Not Water Requirement	gana gana	25 35	25 41	26	26	31	20	13	. 8		:		:				
0) Held Requirement	p202	46	55	35	35	41	27	17	11					-		-	·
1) Unit Water Requirement	L/sec/ha								۸		-				•	•	
- at watercourse head - at distributory bead		0.42 0.49	0.50 0.59	0.32 0.37	0.32	0.37 0.43	0.24	0.16 0.18	0.10 0.12		•					7.	-
Oilseeds (Crop Intensity: 5%)																
) Potostial Exepotresipiration	ma/a-mach	55	44	44	28	28	30	30	39	39	65	65	85	85	94	94	
i) Crop Coefficient Ke		0.26	0.53 0.20	1.12 0.53	1.17	1.17	1.16	0.70 1.16	0.70	-	:	:		:	-	-	•
) Avengo Ke	-	0.20	0.20	0.83	1.15	1.17	1.17	0.93	0.70				-		2	-	
) Communities Use of Water	क्रक्ट केरक	11	16	36	31	33	34	27	27		-	-		-	-		
Monthly Reinfell	may month	0	0	0	0		48	11	22 5		0		2		0		82
) Effective Rainfall (4) · (6)	mayb-mooth	0 11	0 16	36	0 32	0 33	12 23	16	22	•		-				:	
Appa index		0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	-		-				-	
) Pro-lirigation	thath	25	25		٠			٠	٠	•	-	-	-	•	•	-	-
) Net Water Requirement D) Held Requirement	rom)	31 41	41 55	36 · 48	32 43	33 44	23 30	16 22	11 15	:	-		-	•		-	
i) Unit Water Requirement	Vacc/ba	71	93	40	-13	**	.10		.,		-	-	-		- '		
at watercourse head	*	0.37	0.49	0.43	0.39	0.40	0.27	0.20	0.13	- '	-	-	-	-	-	-	-
- at distributary head	``	0.43	0.58	0.51	0.46	0.47	0.32	0.23	0.16	•	<u></u>	<u> </u>		<u> </u>			
Vogerable (Crop learnaisy: 6%) Potential Evapotranspiration	pathyp-stoogh	55	44	44	28	28	30	30	39	39	65	65	85	85	94	94	
) Crop Coefficient Ke		037	0.12	0.90	1.05	1.12	1.08	0.74	-							•	
	•		037	0.42	0.90	1.05	1.12	1.08	0.74		-	-	-	-	-	-	-
) Average Ko) Communitive Use of Water	maya mooda	037 20	0.40 17	0.66 29	0.98 27	1.09	1.10 32	0.91 27	0.74 29	-	:			-	-		
) Monthly Ratefull	ann/mouth	0	ő		0	~	48		22		. 0		2		0		82
) Effective Rainfall	spoots-month	0	0	0	0	0	12	11	5	-	-	-	•	٠	-	-	-
(4) - (6)) Anna Index	maya-month	20 0.50	1.00	29 1.00	27 1.00	30 1.00	21 1.00	16 1.00	24 0.50	-	•	-	-	:	•		
n Pre-trrigation		25	25	-				-				-	-			-	-
n Net Water Requirement	BOEIG	35	42	29	27	30	21	16	12	•	-	-	-	•	•	-	-
0) Field Requirement 1) Upit Water Requirement	uma Macaba	47	- 56	38	36	41	28	21	16		-	-	•	•		-	
A Astacosus pesq	Same	0.43	0.51	0.35	033	0.37	0.25	0.19	0.14	-						-	
- at distributery bend		0.50	0.60	0.41	0.39	0.43	0.30	0.23	0.17	<u> </u>					<u> </u>		
Forage Crops (Crop Intensi 6%) Potential Evapotranspiration	men/h-month	55	44	44	23	28	30	30	39	39	65	65	85	85	94	04	
) Crop Coefficient Kc	Maria acondi	0.50	0.80	0.85	0.90	0.93	0.95	0.95	0.95	0.95		-	-				
		-	0.50	0.80	0.85	0.90	0.93	0.95	0.95	0.95	0.95	•	•	-	-	-	-
) Average Ke	ഇത് സാൻ	58 070	0.65 28	0.83 36	0.88 25	0.92 26	0.94 28	0.95 28	0.95 37	0.95 37	0.95 6 2		•	•	•		•
) Comsumptive Use of Water) Monthly Reinfell	mm/month	28	28	30	0	40	48	10	22	. 37	0	•	2	-	ò	•	8:
) Effective Rainfall	mm/b-month	ò	0	0	. 0	0	13	` n	6	6	0				-		
(4) - (6)	пиора-перед	28	28	36	25	26	17	17	. 31	31	62	•	٠	-	-	•	-
f) Amaindex f) Pro-imigation	man.	0.50 25	1.00 25	1.00	1.00	1.00	1.00	1.00	1.00	1,00	0.50	-		-			-
) Pro-imgaion) Net Water Requirement	E2D)	39	53	36	25	26	17	17	31	31	31				-	-	
n) Field Requirement	ELEO	52	71	48	33	34	22	23	42	42	41	-	•	-	-	-	
) Unit Water Requirement	Vec/ba	6.42	nes	0.43	000	0.21	, A AA	0.20	0.38	0.38	0.37		•	-	-	-	-
es distributary beed		0.47 0.55	0.64 0.76	0.43	0.30 0.35	0.31 0.36	0.20 0.24	0.24	0.45	0.45	0.44			-		-	
Sugercane (Crop Intensity:10%)																
) Potential Evapetranspiration	mood mood	55	44	110	28	28	30	30	39	39	65 0.36	65 0.45	85 0.54	85 0.63	94 0.72	94 0.78	o
) Crop Coefficient Ke	:	1.15	1.15 1.15	1,10 1.15	1.10	•			0.20	0.28 0.20	0.28	0.45	0.45	0.54	0.63	0.78	Ċ
Averse Kc		1.15	1.15	1.13	1.10				0.20	0.24	0.32	0.41	0.50	0.59	0.68	0.75	ò
Community Use of Water	mays month	63	50	49	31	•	·	- '	8	9	21	26	42	50	63	71	
) Mouthly Rainfall) Effective Rainfall	rzen/montă rzen/b-month	0	. 0	0	0		46		22 4	4	0	0	2	. 1	0	0	
(4) • (6)	ECOND-DOORD	ອ	50	49	31			-	4	6	21	26	41	49	63	71	
Area lodex		1.00	1.00	1,00	0.50		-	-	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1
) Pre-irigation	mm	,,,,		40	. ,,,		•	•	25 27	25 31	21	26	41	49	. 63	71	
) Net Water Requirement)) Held Requirement	10CA .	63 84	50 67	49 65	15 21	:			36	31 4)	21 28	26 35	41 55	49 65	85 85	91	
I) Unit Water Requirement	Vaccita		07	.,			-		,,,	"			•			,,	
- at wetercourse bead		0.77	0,61	0.59	0.19	-	-	-	0.33	0.37	0.25	0.32	0.50	0.59	0.77	0.85	0
at distributery head	Ower's s	0.90	0.71	0.70	0.22	 	···-	•	0.39	0.44	0.30	0.37	0.59	0.70	0.90	1.00	_0
erall Water Requirement in Rabi (at watercourse head	Cropping Vec./ht	0.21	0.45	0.28	0.26	0.30	0.23	0.22	034	0.22	0.19	0.03	0.05	0.06	0.08	0.09	Q
et distributery head	Vec/ha	0.25	0.53	033	026	036	0.27	0.25	0.40	0.22	0.19	0.04	0.03	0.07	0.09	0.10	Č
te ! , Irrigation officiency		* : :	2.Effecti	ve Rainfa	ı'll												
 Pield application efficiency 		0.75		for pedd			ETS 6000	0									
	Pulse Oliscota	0.75 0.75			k<200 ma k=>200 m		ER=0.79 ER=0.22		1								
	Vegetable	0.75		for upla	od crop												
4						R40.95 x	Cu/0.31										
•	Forsge Crops	0.75															
	Forsge Crops Sugarcane	0.75		•													
- Canveysace efficiency Field channel	Forse Crops Sugarcane			•													

Table F.46 Unit Diversion Water Requirement of Purwa Area (1/2) (Kharif Cropping)

				-							
	Description	Unit	JUN		JUL		AUG 1	II	SEP	<u> II</u>	OCT
	ddy (Crop Intensity: 68%		I	<u>II</u>	<u>1</u>						
		mm/n-month	112	112	102	102	94	94	. 80	80	68
(1)	Potential Evapotranspiration	HILLAN-HIORAI	112	1.10	1.14	1.17	1.20	1.20	1.15	_ 00	
(2)	Crop Coefficient Kc	-	-	1.10	1,10	1.14	1.17	1.20	1.20	1.15	_
		. *	-	-	1,10	1.10	1.14	1.17	1.20	1.20	1.1:
40)			-	1.10	1,12	1.14	1.17	1.19	1.18	1.18	1.13
(3)	Average Kc		-	123	1112	115	110	112	94	93	78
(4)	Comsumptive Use of Water	mm/h-month	- 04	123	165	113	273	112	291	- 53	. (
(5)	Monthly Rainfall	mm/month	34	10	65	65	87	87	89	89	. 1
(6)	Effective Rainfall	mm/h-month	13	13 30	31	31	31	31	30	30	3
(7)	Percolation	mm	-		80	81	54	56	35	34	10
	(4) - (6) + (7)	mm/h-month		139	0.67	1.00	1.00	1.00	1.00	0.67	0.3
(8)	Area Index			0.33	60	60	1.00	1.00	2.00	0.07	U.J.
(9)	Puddling Water	mm	-	60			54	- 56	35	23	3
(10)		mm	-	106	113	141	60	62	33 39	26	4
	Field Requirement	mm	-	118	126	157	00	02	39	20	-41
(12)	• .	l/sec/ha		105		1.40	0.54		0.00	0.00	
	- at watercourse head			1.07	1.14	1.42	0.54	0.56	0.35	0.23	0.3
	- at distributary head		-	1.26	1.34	1.68	0.64	0.66	0.42	0.27	0.4
	se(Crop Intensity: 22%		1								,
(1)	Potential Evapotranspiration	mm/h-month	112	112	102	102	94	94	80	80	6
(2)	Crop Coefficient Kc	•	0.35	0.40	0.80	1.08	1.10	1.03	0.55		-
		= "	-	0.35	0.40	0.80	1.08	1.10	1.03	0.53	-
(3)	Average Kc	. '-'	0.35	0.38	0.77	0.94	1.09	1.07	0.79	0.55	-
(4)	Comsumptive Use of Water	mm/h-month	39	42	78	95	102	100	63	44	-
(5)	Monthly Rainfall	mm/month	34		165		273		291		
(6)	Effective Rainfall	mm/h-month	9	9	49	53	87	86	79	71	-
	(4) - (6)	mm/h-month	30	33	29	43	16	14	0	0	-
(7)	Area Index	-	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	
(8)	Pre-Irrigation	mm	25	25	- .	· .	-		-		-
(9)	Net Water Requirement	mm	40	58	29	43	16	14	. 0	0	-
(10)	Field Requirement	mm	53	77	38	57	21	19	0	0	-
	Unit Water Requirement	l/sec/ha			11.			1.		4	
` '	- at watercourse head		0.49	0.70	0.35	0.52	0.19	0.17	0.00	0.00	-
	- at distributary head		0.57	0.82	0.41	0.61	0.23	0.20	0.00	0.00	
. Oi	seeds(Crop Intensity: 10%)								7	
(1)	Potential Evapotranspiration	mm/h-month	112	112	102	102	94	94	80	80	6
(2)	Crop Coefficient Kc	_	0.20	0.53	1.12	1.17	1.17	1.16	0.70	1.3	-
,		-	<u>-</u> -	0.20	0.53	1.12	1.17	1.17	1.16	0.70	, - ,
(3)	Average Kc	<u>.</u> .	0.20	0.37	0.83	1.15	1.17	1.17	0.93	0.70	-
(4)	Comsumptive Use of Water	mm/h-month	22	41	84	116	110	110	74	56	_
(5)	Monthly Rainfall	mm/month	34		165		273		291	10	
(6)	Effective Rainfall	mm/h-month	7	9	50	56	89	. 88	83	76	_
(0)	(4) - (6)	mm/h-month	15	32	33	60	21	21	0	0	· _
m)	Area Index	-	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	
(7)	Pre-Irrigation	-	25	25	1.00	1.00	-	1.00	-	-	
(8)		mm	32	57	33	60	21	21	0	0	
(9)	Net Water Requirement	mm	43	76	44	81	29	28	ŏ	Ö	_
	Field Requirement	mm Vanasta	43	- 70	44	01	. 49	- 20	U.		
(11)	Unit Water Requirement	l/sec/ha	0.00	0.00	0.40	0.72	0.26	0.26	0.00	0.00	
	- at watercourse head		0.39	0.69	0.40	0.73	0.26	0.26	0.00	0.00	. •
	- at distributary head		0.46	0.81	0.47	0.86	0.31	0.30	0.00	0.00	
vera	ll Water Requirement in Kharif		0.15		0.00			0.45	0.04	0.16	
	- at watercourse head	l/sec/ha	0.15	0.95	0.89.	1.16	0.44	0.45	0.24	0.16	0.2
	- at distributary head	l/sec/ha	0.17	1.12	1.05	1.36	0,52	0.52	0.28	0.19	0.2
	1. Irrigation efficiency				-	tive Rai					
ote		Paddy		0.90		for pad				21.5_1	
lote	- Field application efficiency			A 71 E		1	t<200 m	ama	ER=0.7	o v P	
lote	- Field application efficiency	Pulse		0.75				100			
lote				0.75 0.75		. 1	<=>200	mm	ER=0.2		144
lote		Pulse					<=>200	mm			144
Note:	Field application efficiency Conveyance efficiency Field channel	Pulse	• • •			For upla	and crop	mm >		2 x R +	144

Table F.46 Unit Diversion Water Requirement of Purwa Area (2/2) (Rabi Cropping)

Wheat (Crop Insensity: 68%) Potential Evapotranspiration) Crop Coefficient Kc 3) Average Kc 4) Comsumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Not Water Requirement - at watercourse head - at distributary head 1) Unit Water Requirement - at watercourse head - at distributary head 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Not Water Requirement - at watercourse head - at distributary head 0) Field Requirement 1) Unit Water Requirement 1) Unit Water Requirement - at watercourse head - at distributary head 0) Field Requirement 2) Crop Coefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 2) Crop Coefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement - at watercourse head - at distributary head 0) Field Requirement - at watercourse head - at distributary head - 10 Field Requirement - at watercourse head - at distributary head - 11 Unit Water Requirement - at watercourse head - at distributary head - Vegetable (Crop Intensity 6%	mroft-month mroft-month mroft-month mroft-month mroft-month mro	68 0 - - - - - - - - - - - - - - - - - -	0.48 23 30 7 16 0.33 25 30 40 0.37 0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	47 0.58 0.48 0.53 25 7 18 0.67 25 12 16 0.15 0.17 47 0.80 0.40 0.60 28 7 21 1.00 	35 1.10 0.58 0.48 0.72 25 12 1.00 22 29 0.27 0.31 1.08 0.80 0.94 32 12 3 29 1.00 29 1.00 29 1.00 3 1.00 3 1.00 3 1.00 1.	35 1.18 1.10 0.58 33 30 1.00 30 40 0.36 0.42 35 1.10 1.08 1.09 38 34 1.00 34 46 0.42 0.49	38 1.18 1.10 1.15 43 31 8 35 1.00 - 35 46 0.42 0.50 38 1.03 1.10 1.07 40 31 8 32 1.00 - 32 42 0.38 0.45	38 1.16 1.18 1.18 1.17 44 8 36 1.00 36 47 0.43 0.51 38 0.55 1.03 0.79 30 7 22 1.00 22 30 0.27 0.32	48 0.92 1.16 1.18 1.09 52 17 5 47 1.00 47 63 0.57 0.67 48 - 0.55 26 17 4 22 0.50 - 11 15 0.14 0.16	48 0.92 1.16 1.04 50 5 45 0.67 30 40 0.36 0.43	77 0.92 0.92 71 0 0 71 0.33 24 31 0.29 0.34 77	
3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Pre-Irrigation 9) Not Water Requirement 1) Unit Water Requirement - at watercourse head - at distributary head 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Hold Requirement - at watercourse head - at distributary head 1) Unit Water Requirement - at watercourse head - at distributary head 1) Oilseeds (Crop Intensity: 5% 1) Protential Evapotranspiration 2) Crop Ceefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall 6) Consumptive Use of Water 6) Average Kc 4) Consumptive Use of Water 6) Monthly Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Iffective Rainfall 6) Iffective Rainfall 6) Field Requirement 1) Unit Water Requirement	uroh-month mm/r-month	68 0.35 - 0.35 24 0 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 - 0.20 14 0 0 0	0.48 23 30 7 16 0.33 25 30 40 0.37 0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37 17	0.58 0.48 0.53 25 7 18 0.67 25 12 16 0.15 0.17 47 0.80 0.40 0.60 28 7 21 1.00 21 22 23 24 25 25 25 26 27 28 28 28 28 28 28 28 28 28 28	1.10 0.58 0.48 0.72 25 12 1.00 22 29 0.27 0.31 35 1.08 0.80 0.94 32 12 3 29 1.00 29 1.00 29 1.00 36 1.00 37 1.00 38 1.00	1.18 1.10 0.58 1.00 0.59 33 30 1.00 30 40 0.36 0.42 35 1.108 1.09 38 1.09 38 1.09 34 1.00 34 40 0.42 0.42	1.18 1.16 1.10 1.15 43 31 8 35 1.00	1.16 1.18 1.17 44 8 36 1.00 36 47 0.43 0.51 38 0.55 1.03 0.7 22 1.00 22 30 0.27	0.92 1.16 1.18 1.09 52 17 5 47 1.00 . 47 63 0.57 0.67 48 . 0.55 26 17 4 22 0.50 - 11 15	0.92 1.16 1.04 50 5 45 0.67 30 40 0.36 0.43	0.92 0.92 71 0 0 71 0.33 24 31 0.29 0.34	
3) Average Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pet-Irrigation 9) Net Water Requirement 0) Field Requirement - at watercourse head - at distributary head 1) Pulse (Crop Intensity: 159 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 1) Unit Water Requirement - at watercourse head - at distributary head Oilseeds (Crop Intensity: 5% 1) Potential Evapotranspiration 1) Unit Water Requirement - at watercourse head - at distributary head Oilseeds (Crop Intensity: 5% 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) If Area Index 8) Pre-Irrigation 9) Net Water Requirement - 10 Init Water Requirement - 21 watercourse head - 23 at distributary head - 24 distributary head - 25 distributary head - 26 distributary head - 27 distributary head - 28 distributary head - 28 distributary head	mm/month mm/h-month	68 0.35 -0.35 24 0 0 0 24 0.50 25 37 49 0.45 0.52	0.48 23 30 7 16 0.33 25 30 40 0.37 0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	0.48 - 0.53 - 25 - 7 - 18 - 0.67 - 25 - 12 - 16 - 0.15 - 0.17 - 47 - 0.80 - 0.40 - 0.60 - 28 - 7 - 21 - 1.00 - 21 - 28 - 0.26 - 0.30 - 47 - 1.12 - 0.53	0.58 0.48 0.72 25 12 3 22 1.00 22 29 0.27 0.31 35 1.08 0.80 0.94 32 12 3 29 1.00 0.94 32 12 3 3 3 4 10 10 10 10 10 10 10 10 10 10	0.58 0.95 33 30 1.00 30 40 0.36 0.42 35 1.10 1.08 3.3 3.4 1.00 3.4 4.6 0.42 0.42	1.18 1.10 1.15 43 31 8 35 1.00 35 46 0.42 0.50 38 1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	1.18 1.17 44 8 36 1.00 36 47 0.43 0.51 38 0.55 1.03 0.79 30 7 22 1.00 22 30 0.27	1.18 1.09 52 17 5 47 1.00 . 47 63 0.57 0.67 48 . 0.55 26 17 4 22 0.50 - 11 15	1.16 1.04 50 5 45 0.67 30 40 0.36 0.43	0.92 71 0 0 71 0.33 24 31 0.29 0.34	
4) Cornsumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 0) Field Requirement - at watercourse head - at distributary head 1. Pulse (Crop Intensity: 159 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement - at watercourse head - at distributary head Oilseed's (Crop Intensity: 5% 1) Potential Evapotranspiration 1) Unit Water Requirement - at watercourse head - at distributary head Oilseed's (Crop Intensity: 5% 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Iffective Rainfall	mm/month mm/h-month	68 0.35 -0.35 24 0 0 0 24 0.50 25 37 49 0.45 0.52	23 30 7 16 0.33 25 30 40 0.37 0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	25 7 18 0.67 25 12 16 0.15 0.17 47 0.80 0.40 0.60 28 7 21 1.00 21 28 0.30 47 1.10 1.00	0.72 25 12 3 22 1.00 22 29 0.27 0.31 35 1.08 0.80 0.94 32 12 3 3 29 1.00	0.95 33 30 1.00 40 0.36 0.42 35 1.10 1.08 1.09 38 3 34 1.00 34 40	1.15 43 31 8 35 1.00 35 46 0.42 0.50 38 1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	1.17 44 8 36 1.00 36 47 0.43 0.51 38 0.55 1.03 0.7 22 1.00 22 30	1.09 52 17 5 47 1.00 . 47 63 0.57 0.67 48 . 0.55 26 17 4 22 0.50 - 11 15	1.04 50 5 45 0.67 30 40 0.36 0.43	0.92 71 0 0 71 0.33 24 31 0.29 0.34	
4) Cornsumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 0) Field Requirement - at watercourse head - at distributary head 1. Pulse (Crop Intensity: 159 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement - at watercourse head - at distributary head Oilseed's (Crop Intensity: 5% 1) Potential Evapotranspiration 1) Unit Water Requirement - at watercourse head - at distributary head Oilseed's (Crop Intensity: 5% 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Iffective Rainfall	mm/month mm/h-month	68 0.35 -0.35 24 0 0 0 24 0.50 25 37 49 0.45 0.52	23 30 7 16 0.33 25 30 40 0.37 0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	25 7 18 0.67 25 12 16 0.15 0.17 47 0.80 0.40 0.60 28 7 21 1.00 21 28 0.30 47 1.10 1.00	25 12 3 22 1.00 22 29 0.27 0.31 35 1.08 0.80 0.94 32 12 3 29 1.00 29 1.00	33 30 1.00 30 40 0.36 0.42 35 1.10 1.09 38 3 34 1.00 34 46	43 31 8 35 1.00 35 46 0.42 0.50 38 1.03 1.10 40 31 8 32 1.00 32 42 0.30	44 8 36 1.00 36 47 0.43 0.51 38 0.55 1.03 0.79 30 7 22 1.00 22 30 0.27	52 17 5 47 1.00 47 63 0.57 0.67 48 0.55 0.55 26 17 4 22 0.50	50 5 45 0.67 30 40 0.36 0.43	71 0 0 0 1 0.33 24 31 0.29 0.34	
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9) Net Water Requirement 10) Field Requirement 11) Unit Water Requirement 12) Lat water requirement 13) Average Ke 14) Cornsumptive Use of Water 15) Monthly Rainfall 16) Effective Rainfall 17) Area Index 18) Pre-Irrigation 19) Net Water Requirement 11) Unit Water Requirement 12) Linit Water Requirement 13) Linit Water Requirement 14) Linit Water Requirement 15) Potential Evapotranspiration 16) Cornsumptive Use of Water 17) Area Index 18) Pre-Irrigation 19) Net Water Requirement 21) Protential Evapotranspiration 22) Crop Coefficient Ke 23) Average Ke 24) Cornsumptive Use of Water 25) Monthly Rainfall 26) Effective Rainfall 27) Area Index 28) Pre-Irrigation 29) Net Water Requirement 20) Field Requirement 20) Field Requirement 21) Unit Water Requirement 22) Linit Water Requirement 23) Lit Water Requirement 24) Water Requirement 25) Lit Water Requirement 26) Lit Water Requirement 27) Lit Water Requirement 28) Lit Water Requirement 29) Lit Water Requirement 20) Field Requirement 20) Lit Water Requirement 21) Lit Water Requirement 22) Lit Water Requirement 23) Lit Water Requirement 24) Lit Water Requirement 25) Lit Water Requirement 26) Lit Water Requirement 27) Lit Water Requirement 28) Lit Water Requirement 29) Lit Water Requirement 20) Lit Water Requirement 20) Lit Water Requirement 21) Lit Water Requirement 22) Lit Water Requirement 24) Lit Water Requirement 25) Lit Water Requirement 26) Lit Water Requirement 27) Lit Water Requirement 28) Lit Water Requirement 29) Lit Water Requirement 20) Lit Water Requirement 20) Lit Water Requirement 21) Lit Water Requirement 22) Lit Water Requirement 24) Lit Water Requirement 25) Lit Water Requirement 26) Lit Water Requirement 27) Lit Water Requirement 28) Lit Water Requirement 29) Lit Water Requirement 20) Lit Water Requirement 20) Lit Water Requirement 21) Lit Water Requirement 21) Lit Water Requirement	mm leady month mark-month mark-month much month	0.35 -0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 -0.20 14 0 0	30 40 0.37 0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	12 16 0.15 0.17 47 0.80 0.40 0.60 28 7 21 1.00 21 22 28 0.26 0.30	29 0.27 0.31 35 1.08 0.80 0.94 32 12 3 29 1.00 	35 1.10 1.08 1.09 38 3 34 1.00 34 46 0.42	46 0.42 0.50 38 1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	47 0.43 0.51 38 0.55 1.03 0.79 30 7 22 1.00 22 30 0.27	63 0.57 0.67 48 0.55 0.55 26 17 4 22 0.50 - 11 15	0.36 0.43	31 0.29 0.34 77	
0) Field Requirement 1) Unit Water Requirement - at watercourse head - at distributary head Pulso (Crop Intensity: 158 1) Potential Evapotrarspiration 2) Crop Coefficient Ke 3) Average Ke 4) Cornsumptive Use of Water 5) Menthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement - at watercourse head - at distributary head 0) Field Requirement 1) Unit Water Requirement - at watercourse head - at distributary head 0) Floor Coefficient Ke 3) Average Ke 4) Cornsumptive Use of Water 5) Menthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement (6) Field Requirement 1) Unit Water Requirement 1) Unit Water Requirement 1) Unit Water Requirement - at watercourse head - at distributary head - at distributary head - at distributary head - at distributary head	mm //wee/ha mm/h-month mm/h-month mm/h-month mm mm mm /wee/ha //wee/ha mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	0.35 -0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 -0.20 14 0 0	40 0.37 0.43 47 0.40 0.35 0.38 30 6 11 1.00 23 49 0.44 0.52 47 0.53 0.20 0.37 0.38	16 0.15 0.17 47 0.80 0.40 0.60 28 7 21 1.00 	29 0.27 0.31 35 1.08 0.80 0.94 32 12 3 29 1.00 	35 1.10 1.08 1.09 38 3 34 1.00 34 46 0.42	46 0.42 0.50 38 1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	47 0.43 0.51 38 0.55 1.03 0.79 30 7 22 1.00 22 30 0.27	63 0.57 0.67 48 0.55 0.55 26 17 4 22 0.50 - 11 15	0.36 0.43	31 0.29 0.34 77	
1) Unit Water Requirement at watercourse head at distributary head Pulso (Crop Intensity: 158) 1) Potential Evaportranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Menthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10) Field Requirement 11) Unit Water Requirement at watercourse head at distributary head Oilseeds (Crop Intensity: 5% 1) Potential Evaportranspiration 2) Crop Ceefficient Kc 3) Average Kc 4) Commanphive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 0) Field Requirement 1) Unit Water Requirement 1) Unit Water Requirement 1) Unit Water Requirement 1 Unit Water Requirement 1 Unit Water Requirement 1 unit Water Requirement 1 at waterscourse head at distributary head	I manyh-month manyh-month manyh-month manyh-month many man Veccha) manyh-month manyh-month manyh-month manyh-month manyh-month manyh-month manyh-month	0.35 -0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 -0.20 14 0 0	0.37 0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37 17	0.15 0.17 47 0.80 0.40 0.60 28 7 21 1.00 21 28 0.26 0.30 47 1.12 0.53	0.27 0.31 35 1.08 0.80 0.94 32 12 3 29 1.00 29 39 0.35 0.42 35 1.17	0.36 0.42 35 1.10 1.08 1.09 38 3 34 1.00 	0.42 0.50 38 1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	0.43 0.51 38 0.55 1.03 0.79 30 7 22 1.00 22 30 0.27	0.57 0.67 48 0.55 0.55 26 17 4 22 0.50	0.36 0.43	0.29 0.34 77	
- at watercourse head - at distributary head Pulse (Crop Intensity: 159 1) Potential Evapotranspiration 2) Crop Coefficient Ke 3) Average Ke 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Not Water Requirement - at watercourse head - at distributary head 1) Pield Requirement - at watercourse head - at distributary head 0.0 Crop Coefficient Ke 3) Average Ke 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement - at watercourse head - of Pield Requirement 1) Unit Water Requirement - at watercourse head - at distributary head	mm/h-month mm/h-month mm/h-month mm/h-month mm /wec/ha / mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	0.35 -0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 -0.20 14 0 0	0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37 17	0.17 47 0.80 0.40 0.60 28 7 21 1.00 - 21 28 0.26 0.30 47 1.12 0.53	0.31 35 1.08 0.80 0.94 32 12 3 29 1.00 29 39 0.35 0.42	35 1.10 1.08 1.09 38 34 1.00 34 46 0.42 0.49	0.50 38 1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	0.51 38 0.55 1.03 0.79 30 7 22 1.00 22 30	0.67 48 0.55 0.55 26 17 4 22 0.50 11 15	0.43	0.34	
- at distributary bead - pat distributary bead 1) Potential Evapotrarapiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Menthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement - 21 watercourse head - 21 distributary head Oilseeds (Crop Intensity: 5% 1) Potential Evapotrarapiration 2) Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Menthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 0) Field Requirement 1) Unit Water Requirement - at watercourse head - at distributary head - at distributary head - at distributary head	mm/h-month mm/h-month mm/h-month mm /wec/ha /wec/ha mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	0.35 -0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 -0.20 14 0 0	0.43 47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37 17	0.17 47 0.80 0.40 0.60 28 7 21 1.00 - 21 28 0.26 0.30 47 1.12 0.53	0.31 35 1.08 0.80 0.94 32 12 3 29 1.00 29 39 0.35 0.42	35 1.10 1.08 1.09 38 34 1.00 34 46 0.42 0.49	0.50 38 1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	0.51 38 0.55 1.03 0.79 30 7 22 1.00 22 30	0.67 48 0.55 0.55 26 17 4 22 0.50 11 15	0.43	0.34	
Pulso (Crop Intensity: 15%) Potential Evapotrarspiration 20 Crop Coefficient Kc 31 Average Kc 42 Cornsumptive Use of Water 53 Menthly Rainfall 65 Effective Rainfall 66 Effective Rainfall 67 Area Index 88 Pre-Irrigation 69 Net Water Requirement 60 Field Requirement 610 Unit Water Requirement 611 Unit Water Requirement 612 at distributary head 613 Average Kc 614 Cornsumptive Use of Water 615 Monthly Rainfall 616 Effective Rainfall 616 Effective Rainfall 617 Area Index 88 Pre-Irrigation 9 Net Water Requirement 60 Field Requirement 61 Unit Water Requirement 61 Unit Water Requirement 61 Unit Water Requirement 61 Unit Water Requirement 61 at waterscourse head 61 at distributary head 62 at distributary head 63 at distributary head	mm/h-month mm/h-month mm/h-month mm /wec/ha /wec/ha mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	0.35 -0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 -0.20 14 0 0	47 0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	47 0.80 0.40 0.60 28 7 21 1.00 - 21 28 0.26 0.30 47 1.12 0.53	35 1.08 0.80 0.94 32 12 3 29 1.00 29 39 0.35 0.42	35 1.10 1.08 1.09 38 34 1.00 34 46 0.42 0.49	38 1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	38 0.55 1.03 0.79 30 7 22 1.00	48		<i>n</i>	
1) Potential Evapotranspiration 2) Crop Coefficient Ke 3) Avorage Ke 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Not Water Requirement 10) Field Requirement - at watercourse head - at distributary head 1) Protential Evapotranspiration 2) Crop Coefficient Ke 3) Average Ke 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall 6) Effective Rainfall 6) Rifective Rainfall 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10) Field Requirement 11 Unit Water Requirement - at watercourse head - at distributary head - at distributary head - at distributary head - at distributary head	mm/h-month mm/h-month mm/h-month mm /wec/ha /wec/ha mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	0.35 -0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 -0.20 14 0 0	0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	0.80 0.40 0.60 28 7 21 1.00 21 28 0.26 0.30 47 1.12 0.53	1.08 0.80 0.94 32 12 3 29 1.00 29 39 0.35 0.42	1.10 1.08 1.09 38 3 34 1.00 34 46 0.42 0.49	1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	0.55 1.03 0.79 30 7 22 1.00 22 30	0.55 0.55 26 17 4 22 0.50	48	:	
2) Crop Coefficient Kc 3) Avorage Kc 4) Cornsumptive Use of Water 50 Menthly Rainfall 51 (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 9) Net Water Requirement 10 Field Requirement 1 Unit Water Requirement 21 watercourse head 22 Crop Coefficient Kc 3) Average Kc 4) Cornsumptive Use of Water 5) Menthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10 Unit Water Requirement 10 Init Water Requirement 10 Unit Water Requirement 11 Unit Water Requirement 11 Unit Water Requirement 1 Unit Water Requirement 1 unit Water Requirement 1 unit Water Requirement 1 distributary head	mayle month mmyle month mmyle month mmyle month mm mm limn mm l	0.35 -0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 -0.20 14 0 0	0.40 0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	0.80 0.40 0.60 28 7 21 1.00 21 28 0.26 0.30 47 1.12 0.53	1.08 0.80 0.94 32 12 3 29 1.00 29 39 0.35 0.42	1.10 1.08 1.09 38 3 34 1.00 34 46 0.42 0.49	1.03 1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	0.55 1.03 0.79 30 7 22 1.00 22 30	0.55 0.55 26 17 4 22 0.50		:	
3) Avorago Kc 4) Cornsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10) Field Requirement 11) Unit Water Requirement - at watercourse head - at distributary head 0 Oilneeds (Crop Intensity: 5% 12) Potential Evapotrampiration 2) Crop Ceefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10) Field Requirement - at watercourse head - at distributary head	mm/month mm/h-month mm/h-month mm l/sec/hs mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	0.35 24 0 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 	0.35 0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37 17	0.40 0.60 28 7 21 1.00 - 21 28 0.26 0.30 47 1.12 0.53	0.80 0.94 32 12 3 29 1.00 	1.08 1.09 38 3 34 1.00 34 46 0.42 0.49	1.10 1.07 40 31 8 32 1.00 32 42 0.38 0.45	1.03 0.79 30 7 22 1.00 22 30	0.55 26 17 4 22 0.50		0	
4) Cornsumptive Use of Water 5) Menthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 9) Net Water Requirement 1 Unit Water Requirement - at watercourse head - at distributary head 0 Diseofs (Crop Intensity: 5% 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Menthly Rainfall (6) Iffective Rainfall (6) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10 Unit Water Requirement - at watercourse head - at distributary head	mm/month mm/h-month mm/h-month mm l/sec/hs mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	0.35 24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 14 0 0	0.38 18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	0.60 28 7 21 1.00 - 21 28 0.26 0.30 47 1.12 0.53	0.94 32 12 3 29 1.00 29 39 0.35 0.42	1.09 38 3 34 1.00 34 46 0.42 0.49	1.07 40 31 8 32 1.00 - 32 42 0.38 0.45	0.79 30 7 22 1.00 22 30	0.55 26 17 4 22 0.50		0	
4) Cornsumptive Use of Water 5) Menthly Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 9) Net Water Requirement 1 Unit Water Requirement - at watercourse head - at distributary head 0 Diseofs (Crop Intensity: 5% 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Menthly Rainfall (6) Iffective Rainfall (6) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10 Unit Water Requirement - at watercourse head - at distributary head	mm/month mm/h-month mm/h-month mm l/sec/hs mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	24 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 	18 30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37 17	28 7 21 1.00 	32 12 3 29 1.00 29 39 0.35 0.42	38 34 1.00 34 46 0.42 0.49	40 31 8 32 1.00 32 42 0.38 0.45	30 7 22 1.00 22 30	26 17 4 22 0.50		0	-
5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10) Field Requirement 11) Unit Water Requirement - at watercourse head - at distributary head 0 Dilneeds (Crop Intensity: 5% 12) Potential Evapotrampiration 13) Average Ke 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10) Field Requirement 11 Unit Water Requirement - at watercourse head - at distributary head	mm/month mm/h-month mm/h-month mm l/sec/hs mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	0 0 0 24 0.50 25 37 49 0.45 0.52 68 0.20 - 0.20 14 0 0	30 6 11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37 17	7 21 1.00 21 28 0.26 0.30 47 1.12 0.53	12 3 29 1.00 29 39 0.35 0.42 35 1.17	3 34 1.00 34 46 0.42 0.49	31 8 32 1.00 32 42 0.38 0.45	7 22 1.00 22 30	17 4 22 0.50 - 11 15		0	-
6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Not Water Requirement 10) Field Requirement 11) Unit Water Requirement - at watercourse head - at distributary head - Oilseeds (Crop Intensity: 5% 1) Protential Evapotranspiration 2) Crop Cerfficient Kc 3) Average Kc 4) Community Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 0) Field Requirement - at waterscourse head - at distributary head	mm/h-month mm/h-month mm Vec/ha) mm/h-month mm/h-month mm/h-month mm/h-month	0 24 0.50 25 37 49 0.45 0.52 68 0.20 - 0.20 14 0 0	6 11 1.00 23 36 49 0.44 0.52 47 0.53 0.20 0.37 17	21 1.00 21 28 0.26 0.30 47 1.12 0.53	3 29 1.00 29 39 0.35 0.42 35 1.17	34 1.00 34 46 0.42 0.49	8 32 1.00 32 42 0.38 0.45	22 1.00 - 22 30	22 0.50 			-
(4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 9) Net Water Requirement 10) Field Requirement - at water requirement - at water course head - at distributary head 0.0 tileods (Crop Intensity: 5% 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10) Field Requirement 10 Unit Water Requirement - at waterscourse head - at distributary head	mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month mm/h-month	24 0.50 25 37 49 0.45 0.52 68 0.20 - 0.20 14 0 0	11 1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	21 1.00 21 28 0.26 0.30 47 1.12 0.53	29 1.00 29 39 0.35 0.42 35 1.17	34 1.00 34 46 0.42 0.49	32 1.00 32 42 0.38 0.45	22 1.00 - 22 30	22 0.50 - 11 15		:	-
7) Area Index 8) Pre-Irrigation 9) Net Water Requirement 10) Field Requirement 11) Unit Water Requirement 12 Unit Water Requirement 13 Unit Water Requirement 14 watercourse head 15 value of the second of the seco	men own vector of the contract	0.50 25 37 49 0.45 0.52 68 0.20 - 0.20 14 0 0	1.00 25 36 49 0.44 0.52 47 0.53 0.20 0.37	21 28 0.26 0.30 47 1.12 0.53	1.00 29 39 0.35 0.42 35 1.17	1.00 34 46 0.42 0.49	1.00 32 42 0.38 0.45	1.00 22 30 0.27	0.50 11 15 0.14		-	-
8) Pre-Irrigation 9) Not Water Requirement 10) Pield Requirement 11) Unit Water Requirement 11) Unit Water Requirement 12) Lat Water Requirement 13 to watercourse head 14 distributary head 15 Distributary head 16 Crop Internsity: 5% 17 Presential Evapotranspiration 17 Crop Ceefficient Kc 18 Average Kc 19 Community Use of Water 19 Monthly Rainfall 19 Effective Rainfall 19 Effective Rainfall 10 That a Tributary Requirement 10 Field Requirement 10 That Water Requirement 10 That Water Requirement 11 Unit Water Requirement 12 A watercourse head 13 Articles And State State 14 A watercourse head 15 Articles And State State 16 A state State State 17 A state State State 18 A state State 19 A state State 19 A state State 19 A state State 10 A state State 10 A state 11 A state 11 A state 12 A state 13 A state 14 A state 15 A state 16 A state 17 A state 18 A state 19 A	mm mm Veccha y much month man/n-month much-rooth much-rooth much-rooth	25 37 49 0.45 0.52 68 0.20 - 0.20 14 0.0	25 36 49 0.44 0.52 47 0.53 0.20 0.37 17	21 28 0.26 0.30 47 1.12 0.53	29 39 0.35 0.42 35 1.17	34 46 0.42 0.49	32 42 0.38 0.45	22 30 027	 11 15 0.14	:		
9) Net Water Requirement (0) Field Requirement (1) Unit Water Requirement - at watercourse head - at distributary head (1) Potential Evapotranspiration (2) Crop Coefficient Kc (2) Average Kc (4) Consumptive Use of Water (5) Monthly Rainfall (6) Effective Rainfall (4) - (6) (7) Area Index (8) Pre-Infigation (9) Net Water Requirement (1) Unit Water Requirement - at watercourse head - at distributary head	mm mm Veccha y much month man/n-month much-month much-month much-month	37 49 0.45 0.52 68 0.20 	36 49 0.44 0.52 47 0.53 0.20 0.37 17	21 28 0.26 0.30 47 1.12 0.53	39 0.35 0.42 35 1.17	46 0.42 0.49	0.38 0.45	30 0.27	15 0.14	:	:	-
(0) Field Requirement 1) Unit Water Requirement - at watercourse head - at distributary head - at distributary head - officeds (Crop Intensity: 5% 1) Potential Evapotranspiration 2) Crop Ceefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement 10) Field Requirement - at watercourse head - at distributary head	num/h-month mun/h-month mun/h-month mun/h-month mun/h-month mun/h-month	68 0.20 	49 0.44 0.52 47 0.53 0.20 0.37 17	28 0.26 0.30 47 1.12 0.53	39 0.35 0.42 35 1.17	46 0.42 0.49	0.38 0.45	30 0.27	15 0.14	: :	- - -	-
13) Unit Water Requirement - at watercourse head - at distributary head . Oilseeds (Crop Intensity: 5%) Potential Evapotrampiration 2) Crop Ceefficient Kc 3) Average Kc 4) Community: Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement 0) Field Requirement - at watercourse head - at distributary head) mun/h-month mun/h-month mun/h-month mun/h-month mun/h-month	0.45 0.52 68 0.20 - 0.20 14 0	0.44 0.52 47 0.53 0.20 0.37 17	0.26 0.30 47 1.12 0.53	0.35 0.42 35 1.17	0.42 0.49	0.38 0.45	0.27	0.14	•	:	-
- at watercourse head - at distributary head - Potential Evapotranspiration - distributary Lie of Water - Monthly Rainfall - distributary head - distributary head - Net Water Requirement - distributary head - at distributary head - distributary head - distributary head	man/h-month man/h-month man/h-month man/h-month man/h-month	0.52 68 0.20 - 0.20 14 0	0.52 47 0.53 0.20 0.37 17	0.30 47 1.12 0.53	0,42 35 1,17	0.49	0.45			•	· -	-
at distributary head Oilseeds (Crop histeristy: 5% 1) Potential Evapotranspiration 2) Crop Coefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement 10) Field Requirement - at watercourse head - at distributary head	man/h-month man/h-month man/h-month man/h-month	0.52 68 0.20 - 0.20 14 0	0.52 47 0.53 0.20 0.37 17	0.30 47 1.12 0.53	0,42 35 1,17	0.49	0.45			•	·	-
Othereds (Crop Intensity: 5%) Potential Evaporampiration 2) Crop Ceefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement (0) Field Requirement - at waterscurse head - at distributary head	man/h-month man/h-month man/h-month man/h-month	68 0:20 - 0:20 14 0	47 0.53 0.20 .037 17	47 1.12 0.53	35 1.17			0.32	0.16			-
1) Potential Evapotrarspiration 2) Crop Coefficient Kc 3) Average Kc 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement 10) Field Requirement - at waterscourse head - at distributary head	man/h-month man/h-month man/h-month man/h-month	0.20 - 0.20 14 0	0.53 0.20 0.37 17	1.12 0.53	1.17	35						
2) Crop Coefficient Kc 3) Average Kc 4) Comsumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (5) 7) Area Index 8) Pre-Irrigation 9) Net Water Requirement (0) Field Requirement - at watercourse head - at distributary head	mm/h-month mm/h-month mm/h-month	0.20 - 0.20 14 0	0.53 0.20 0.37 17	1.12 0.53	1.17	35			1.5	**	~~	
3) Average Ke 4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement (0) Field Requirement - at waterscourse head - at distributary head	man/n-month man/h-month man/h-month	0.20 14 0	0.20 0.37 17	0.53			38	38	48	48	77	
4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infgation 9) Net Water Requirement 0) Field Requirement 1) Urat Water Requirement - at watercourse head - at distributary head	man/n-month man/h-month man/h-month	14 0 0	. 0.37 17			1.17	1.16	0.70	-	-	-	
4) Consumptive Use of Water 5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infgation 9) Net Water Requirement 0) Field Requirement 1) Urat Water Requirement - at watercourse head - at distributary head	man/n-month man/h-month man/h-month	14 0 0	17	0.83	1.12	1.17	1.17	1.16	0.70	•	-	-
5) Monthly Rainfall 6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement (0) Field Requirement - at watercourse head - at distributary head	man/n-month man/h-month man/h-month	0 0			1.15	1.17	1.17	0.93	0.70	•	-	-
6) Effective Rainfall (4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement 0) Field Requirement 11 Unit Water Requirement - at watercourse head - at distributary head	mm/h-menth mm/h-menth	0		39	40	40	44	35	34	-	•	•
(4) - (6) 7) Area Index 8) Pre-Infigation 9) Net Water Requirement (0) Field Requirement 1) Unit Water Requirement - at watercourse head - at distributary head	mm/h-menth	-	30		12		31		17		0	
7) Area Index 8) Pre-Infigution 9) Pre-Infigution 10) Field Requirement 10) Field Requirement 11) Unit Water Requirement 12 at watercourse head 12 at distributary head			6	8	3	3	8	8	4	•	•	-
7) Area Index 8) Pre-Infigution 9) Pre-Infigution 10) Field Requirement 10) Field Requirement 11) Unit Water Requirement 12 at watercourse head 12 at distributary head	mm	14	11	31	36	37	35	27	29	-	-	-
9) Net Water Requirement 10) Pield Requirement 11) Unit Water Requirement 12 at watercourse head 13 distributary head 15	TTMT	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50	-	-	•
9) Net Water Requirement 10) Pield Requirement 11) Unit Water Requirement 12 at watercourse head 13 distributary head 15		25	25	•	•	-	-	-	•	•	-	-
Field Requirement Water Requirement at watercourse head at distributary head	men	32	36	31	36	37	35	27	15	-	•	+
Unit Water Requirement at watercourse head at distributory head	man.	42	48	41	48	49	47	-36	19		-	~
- at distributary head	Vzcc/ha									-	•	-
		0.38	0.44	0.37	0.44	0.45	0.43	0.33	0.18	-	•	٠
Vegetable (Crop Intensity 6%		0.45	0.51	0.44	0.52	0.53	0.50	0.38	0.21			-
)			*								
 Potential Evapotranspiration 	mm/h-menth	68	47	47	35	35	38	38	48	48	77	
2) Crop Coefficient Kc	•	0.37	0.42	0.90	1.05	1.12	1.08	0.74	-	-	-	-
	-	-	0.37	0.42	0.90	1.05	1.12	1.08	0.74	•	-	-
3) Average Ko	+	0.37	0.40	0.66	0.98	1.09	1.10	0.91	0.74	-	-	-
4) Commumptive Use of Water	mm/h-month	25	19	31	34	37	41	34	36	-	-	-
5) Monthly Rainfell	mm/month	0	30		12		31		17		0	
6) Effective Rainfall	mm/h-month	0	6	7	3	3	8	8	4	-	-	-
(4) - (6)	สายเจ้า-สายเน้า	25	12	24	30	34	33	26	31	-	•	٠
7) Area Index	-	0.50	1.00	1.00	1.00	1.00	1.00	1.00	0.50		-	-
6) Pre-Imigation	tom	25	25	•	-	-			-		-	-
9) Not Water Requirement	Din.	37	37	24	30	34	33	26	16			-
0) Pield Requirement	mm	50	50	32	41	46	44	35	21	-	-	-
1) Unit Water Requirement	Vsec/ha									-	-	•
- at watercourse head	* 	0.45	0.45	0.29	0.37	0.41	0.40	0.32	0.19	,	-	_
- at distributary head		0,53	0.53	0.34	0.43	0.49	0.47	0.37	0.22		-	-
Porage Crops (Crop Intens 6%)		0,00	T								
Potential Evapotranspiration	maryla-roomth	68	47	47	35	35	38	38	48	48	77	
2) Crop Coefficient Kc	THE PARTY CONTROL	0.50	0.80	0.85	0.90	0.93	0.95	0.95	0.95	0.95		_
e) Cub Coemosia ve	-	0.30	0.50	0.80	0.85	0.90	0.93	0.95	0.95	0.95	0.95	_
3) Australia V		0.50	0.55	0.83	0.83	0.92	0.94	0.95	0.95	0.95	0.95	
3) Average Ke 4) Community Has of Water	mm A. manik	34	31	39	30	32	35	36	. 46	46	73	-
4) Comsumptive Use of Water	mm/n-month mm/mosth	. 34	30	.39	12	12	31		17	- 1-3	0	-
5) Monthly Rainfall			. 30	8	3	3	31	8	5	5	Ö	
6) Effective Rainfall	mm/h-month	0				- 28	27	28	3 41	41	73	•
(4) - (6)	mm/h-month	34	23	31	27							-
7) Area Index	-	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.50	-
8) Pre-Impation	nyn	25	25				-					•
9) Net Water Requirement	mm	42	48	31	27	28	27	28	41	41	37	-
0) Field Requirement	men	56	64	41	36	38	36	. 37	54	54	49	-
1) Unit Water Requirement	Vscc/ha				2				_		_	-
- at watercourse head		0.51	0.58	0.37	0.33	0.34	0.33	0.34	0.49	0.49	0.44	-
- at distributary head		0.60	0.69	0.44	0.39_	0.41	0.39	0.39	0.58	0.58	0.52	·
verall Water Requirement in Ral												
- at watercourse head	i Cropning	0.14	GAG	0.20	0.30	0.38	0.41	0.39	0.46	0.28	0.22	-
			0,47	0.23	0.35	0.44	0.48	0.46	0.54	0.33	0.26	_
	Vsec/na									~		
- at distributary head		0.17	2 Effective	: Nainfell								
- at distributary head otc 1, brigation efficiency	Vsec/ha Vsec/ha	0.17	2. Effective									
- at distributary head	Vsec/ha Vsec/ha cy Wiscat 0	0.17 0.75		for paddy	· · · · · · · · · · · · · · · · · · ·	12	R=0.70 = 1					
- at distributary head otc 1, brigation efficiency	Vsec/ha Vsec/ha yww.at 0 Pulse 0	0.17 0.75 0.75		for paddy Re	<200 mm		R=0.79 x l					
- at distributary head otc 1, brigation efficiency	Vsec/na Vsec/na Vsec/na Cy Wheat O Cilseeds O Cilseeds	0.17 0.75 0.75 0.75	•	for paddy R- R-	=>200 mm		R=0.79 x l R=0.22 x l					
- at distributary head otc 1, brigation efficiency	Vsec/na Vsec/na Vsec/na Cy Wheat O Cilseeds O Cilseeds	0.17 0.75 0.75 0.75 0.75 0.75	•	for paddy R- R- for upland	=>200 mm	E	R=0.22 x 1					

- Conveyance efficiency Field channel 0.85 Minor and Distributary (0.92 x 0.92) 0.85

Table F.47 Groundwater Use Plan

1. Sursa Badaicha Distributary

Unit: MCM

***************************************	Diversion	Canal	Roster	Groundwater	Use	
•	Requirement	Supply	Adjustment	Drainage	Tubewell	2_/
				Scheme 1_/		(%)
Kharif	27.53	18.62	3,62	1.1	5.28	19
Rabi	22,76	12.12	0.35	1.1	10.29	45
Total	50.29	30.74	3.97	2.2	15.57	31

Required no. of Shallow Tubewell Unit annual draft: 18,000 m3/no.

Required number of shallow tubewell (15.57/0.018) = 865 nos. (= 900 nos.)

2. Purwa Chimyani Dy. Pakra Mr.

Unit: MCM

	· ·				CILLE	
	Diversion	Canal	Roster	Groundwater	Use	
	Requirement	Supply	Adjustment	Drainage	Tubewell	2_/
				Scheme 1_/	e de Mêdere	(%)
Kharif	5.72	3.73	1.05	0.00	0.94	16
Rabi	3.91	2.46	0.20	0.00	1.25	32
Total	9.63	6.19	1.25	0.00	2.19	. 23

Required no. of Shallow Tubewell Unit annual draft: 15,000 m3/no.

Required number of shallow tubewell (2.19/0.015) = 146 nos. (= 150 nos.)

3. Purwa Tikar Dy.

Unit: MCM

	Diversion	Canal	Roster	Groundwater Use					
	Requirement	Supply	Adjustment	Drainage	Tubewell	2_/			
	• .		_	Scheme 1_/		(%)			
Kharif	6.78	5.56	1.22	0.00	0.00	0			
Rabi	5.78	3.42	0.39	0.00	1.97	34			
Total	12.56	8.98	1.61	0.00	1.97	16			

Required no. of Shallow Tubewell Unit annual draft: 15,000 m3/no.

Required number of shallow tubewell (1.97/0.015) = 131 nos. (= 130 nos.)

Note: 1_/: Drainagae scheme along Hardoi Branch

Drainage capacity: 189 l/sec

Drainage draft /season; 0.189 m3/sec x 86,400 sec x 90 day

= 1.1 MCM

2_/: % to total diversuion requirement

Table F.48 General Features of Improvement Plan of Existing Irrigation System in Sarojini Nagar Area

1	

			Proposed		Design Ca	pacity	Nos. of O	utlet	Canal	Lining
	Canal Name	C.C.A.	Irrigation		Exisiting	Proposed	Existing	Proposed	Length	Length
	· · · ·	(ha)	Kharif	Rabi	(cumec)	(cumec)	(nos.)	(nos.)	(km)	(km)
A. Iı	rrigated by Amausi Distributra	rv Canal	System							
	Amausi Disty (Head M17-1	3,547	-	887	3.40	3.40	110	88	27.61	3.1
	- By New Minor Canals	(2,925)	(702)	(731)			(92)			
	- By Direct Supply	(622)		(156)			(18)			
2	Gehru Disty.	3,357	806	839	1.12	1,01	72		19.95	5.9
3	Banthra Mr.	409	98	102	0.10	0.11	17	15	4.26	1.2
4	Rahimabad Mr.	437	105	109	0.08	0.17	17	15	4.20	1.2
5	Sahadat Khera Mr.	212	- 51	53	0.04	0.06	7	6	1.80	0.54
6	Khotara Mr.	402		101	0.20	0.19	8	7	2.94	0.88
7	Bakauli Mr.	290	70	73	0.04	0.08	4		1.18	0.3
8	Mati Mr.	525	126	131	0.20	0.27	13	11	4.20	1.2
9	Raisingh Khera Mr.	151	36	38	0.06	0.04	3	3	0.80	0.2
10	Alinagar Mr.	338	81	85	0.10	0.09	14	12	3.80	1.13
1	Bhadswa Mr.	886	213	222	0.23	0.24	32	27	7.70	2.30
12	Rani Khera Mr.	505	121	126	0.09	0.14	13	11	3.40	1.02
13	Dehwa Mr.	962	231	241	0.20	0.26	26	22	6.40	1.9
14	Govindpur Mr.	373	90	93	0.25	0.14	15	13	3.20	0.9
.5	Bhasinda Mr.	- 138	33	35	0.06	0.04	5	4	0.80	0.24
16	Gautam Khera Mr.	169	41	42	0.04	0.05	7	6	1.20	0.30
	Sub-Total	12,701	3,048	3,175			363	305	93.43	22.8
3. Ir	rigated by Pump System from	the Sai ri	ver							
1 /	Amausi Disty.(M17-1-160 1	1,280	307	320	0.45	1.10	32	27	7.22	7.22
7	Manoharpur Mr.	151	36	38	0.08	1.43	10	9	2.00	0.60
18	Meerampur Mr.	317	76	79	0.06	0.23	12	10	2.80	0.8
19	Davalia Mr.	26	6	7	0.03	0.02	2	2	0.80	0.24
20	Bhajmanmau Mr.	248	60	62	0.05	0.16	11	9	1.80	0.5
21	Akbarpur Mr.	139	. 33	35	0.05	0.09	4	3	1.50	0.4
	Sub-Total	2,161	519	540			71	61	16.12	9.8
	Total	14,862	3,567	3,716		·	434	365	109.55	32.7

Note: 1 Design diversion water requirem: 1.38 liter/sec/ha at the head of Amausi distributary canal against the present capacity of 1.11 liter/sec/ha except for pump irrigated area.

² Total command area of Amausi Disty. is 4,827 ha.

			Proposed	Sec. 1	Design C	apacity	Nos. of C	utlet	Canal	Lining
	Canal Name	C.C.A. (ha)	Irrigation Kharif	Area Rabi	Exisiting	Proposed (cumec)	Existing (nos.)	Proposed (nos.)	Length (km)	Length (km)
A. In	igated by Amausi Distributrary	Canal Syste	m							
	Maurawan Disty. *1	4,331	1,039	1083	0.96	1.68	82		19.95	3.77
	By New Minor Canals	1,692	406			0.36		46		7.69
	By Direct Supply	2,639	633		1.0	0.56		1		
2.	Narichak Disty.	3,102	744	776	0.48	0.65	41	62	19.00	8.22
3,	Kunsa Mr.	240	58	60	0.08	0.05	- *2	6	1.00	0.43
4.	Lotna Mr.	150	36	38	0.14	0.03	- *2	.3	0.50	0.22
5,	Bankat Mr.	805	193	201	0.11	0.17	21	32	2.50	1.08
6.	Bhatargaon Mr.	612	147	153	0.11	0.13	8	12	2.20	0.95
7.	Unai Mr.	583	140	146	0.14	0.12	16	24	3.20	1.38
8.	Bardar Mr.	229	55	57	0.14	0.05	7	11	3.50	1.51
	Sub-Total	10,052	2,412	3,596			175	197	51.85	25,21
3. Im	igated by Pump System from the	e Sai river								
	/aurawan Disty. *1	1,324	318	331	0.45	0.66	32	49	8.65	8.65
9.	Sataon Mr.	608	146	152	0.14	0.84	11	17	1.18	0.5
10.	Korihar Mr.	487	117	122	0.14	0.14	12	18	4.20	1.82
11.	Hajipur Mr.	403	97	101	0.14	0.12	14	21	0.80	0.35
	Sub-Total	2,822	677	706			37	105	14.83	11.32
	Total	12,874	3,090	4,301			212	302	66.68	36.53

Note: 1 Design diversion water requirement i 1.24 liter/sec/ha at the head of Amausi distributary canal against the present capacity of 0.88 liter/sec/ha except for pump irrigated area.

Table F.50 General Features of Improvement Plan of Existing Irrigation System in Sursa Area 1.00

	en e		Proposed		Design Ca	pacity	Nos, of O	utlet	Canal	Lining
	Canal Name	C.C.A.	Irrigation	Area(ha)	Exisiting	Proposed	Existing	Proposed	Length	Length
		(ha)	Kharif	Rabi	(cumec)	(cumec)	(nos.)	(nos.)	(km)	(km)
	OI BRANCH CANAL									
1. I	Bhadaicha Disty.	7,135		1,784	3.51	3.51	116	167	34.78	19.5
	Direct	1,823	438	456	0.00	0.41		50		
	New Canal	5,312	1,275	1,328	0.00	1.19		117		
2.	Kamrauli Mr.	1,225	294	306	0.24	0.27	29	27	7.84	4.4
3.	Sikandarpur Mr.	1,825	438	456	0.36	0.47	30	40	8.34	4.6
4.	Isauli Mr.	261	63	65	0.08	0.06	13	5	3.82	2.1
5.	Sursa Mr.	1,123	270	281	0.25	0.30	24	24	7.8	4.3
6.	Udra Mr.	195	47	49	0.07	0.04	4	4	2.76	1.5
7.	Barha Mr.	1,194	287	299	0.22	0.27	17	- 26	5.49	3.0
8.	Khajurahra Mr.	1,435	344	359	0.42	0.49	29	31	10.2	5.7
9.	Tikari Mr.	755	181	189	0.16	0.17	20	16	3.52	1.9
10.	Pachkohra Mr.	523	126	131	0.07	0.12	9	11	2.41	1.3
	TOTAL	15,671	5,473	5,702			291	351	86.96	48.8
11. N	Aarsa Mr.	1,085	260	271	0.35	0.35	20	24	7.5	4.2
12.	Salkupur Mr.	350	84	88	0.08	0.07	7	7	3.4	1.9
13.	Sauntera Mr.	207	50	52	0.05	0.04	. 5	4	1.8	1.0
	SUB-TOTAL	1642	394	411			32	35	12.7	7.1
	TOTAL	17,313	5,868	6,112			323	386	99.66	55.9

Table F.51 General Features of Improvement Plan of Existing Irrigation System in Purwa Area

			Propose	d	Design Cap	acity	Nos. of O	utlet	Canal	Lining
	Canal Name	C.C.A.	Irrigatio	on Area	Exisiting	Proposed	Existing	Proposed	Length	Length
~~~		(ha)	Kharif	Rabi	(cumec)	(cumec)	(nos.)	(nos.)	(km)	(km)
PURV	VA BRANCH CANAL			. :						
1. I	Purwa Disty.	3,145	755	786	1.61	1.61	72	73	22.87	11.52
	Direct	1,245	299	.311		0.38		28		
	New Canal	1,900	456	475		0.58		45		
2.	Bhopatpur Mr.	398	96	100	0.10	0.12	8	8	1.70	0.86
3.	Bhadnang Mr.	310	74	78	0.12	0.09	8	6	2.33	1.17
4	Bangaon Mr.	803	193	201	0.18	0.24	29	17	7.26	3.66
5.	Badi Khera Mr.	204	49	51	0.05	0.06	8	4	2.60	1.31
6.	Tupra Mr.	203	49	51	0.05	0.06	. 8	4	1.80	0.91
7.	Pinjra Mr.	239	57	60	0.04	0.07	8	5	1.60	0.81
	SUB-TOTAL	5,302	1,272	1,326			141	117	40.16	20.23
8. 0	Chimyani Mr.	1,602	384	400	0.20	0.20	29	35	8.60	4.33
9	Simremau Mr.	584	140	146	0.10	0.05	20	12	4.52	2.28
	SUB-TOTAL	2,186	525	546			49	47	13.12	6.61
10. T	ikar Disty.	1,976	474	494	0.45	0.45	43	42	12.40	6.25
	Direct	1,456	349	364	:	0.15		30		-
	New Canal	520	125	130		0.05		12		
11.	Ahamdabad Mr.	378	91	94	0.07	0.04	8	8	1.63	0.82
12.	Panhan Mr.	1,376	330	344	0.19	0.20	21	30	6.58	3.31
13.	Tiwaria Mr.	527	126	132	0.10	0.06	10_	11	3.23	1.63
	SUB-TOTAL	4,256	1,021	1,064			82	91	23.84	12.01
14. P	akra Mr.	509	122	127	0.14	0.14	18	11	4.26	2.15
	SUB-TOTAL	509	122	127			18	11	4.26	2.15
	TOTAL	12,252	2,941	3,063			290	266	81.38	40.99

Table F.52 General Features of Proposed Minor Irrigation Canal in Sarojini Nagar Area

		Dis	tance on	Distance on Amausi Dy.	Canal	Diverted		Proposed	d.	Proposed Canal	Canal		Nos. of Structure	Struct	re		Lining
Canal Name	Position	BP		EP	Length	from	C.C.A.	Irrigation Area	.	Capacity	Base H	HR O	Outlet	Br	Bridge	Drainage	Drainage Length
			•		(km)	:	(ha)	Kharif	Rabi (	(cnmec)	(E)	i	ជ	SB VI	DRB VRB FP	Crossing	(B)
A. Parallel Irrigation Canal	Canal							*:									
1. Amausi No.1	æ	0 1	420 -	1 3 210	1.95	1.95 Amausi Dy.	126	30	32	0.03	0.60	<b>;~</b> ≺	4	O	₩		0.56
2. Amausi No.2	L	0	330 -	4 6 330	7.4	7.44 Amausi Dy.	519	125	130	0.14	1,20	1	15	0	$\omega$	0	0 2.14
3. Amausi No.3	12	1 7	- 095	4 5 560	4.43	4.43 Amausi Dy.	197	47	49	0.05	0.60	_	4	0	7	0	0 1.27
4. Amausi No.4	<b>بــا</b>	5 1	0	9 6 83	7.47	7.47 Amausi Dy.	535	128	134	0.14	1,20	<b>-</b>	13	0	9	<b>***</b>	2.1
5. Amausi No.5	<b>%</b>	5 1	0	8 6 248	5.91	5.91 Amausi Dy.	622	149	156	0.17	1.20	<del>-</del> 4	14	0	Ŋ	<b>+-4</b>	1.70
6 Amausi No.6	ద	9	400 -	11 0 545	2.86	2.86 Amausi Dy.	189	45	47	0.05	0.60	1	\$	<b>,</b> ~	0	0	0.8
7. Amansi No.7	H	10 1	0	11 5 658	2.61	2.61 Amausi Dy.	170	41	43	0.05	09'0	-	4		0	0	0.7
8. Amausi No.8	24	11 2	0	11 7 570 C	butlet Only	Only Amausi Dy.	40	10	10	0.01		0	<b>F</b> -1	0	0	0	0.00
9. Amausi No.9	œ	12 3	0	15 2 0	4.63	4.63 Amausi Dy.	229	55	57	90.0	09'0	<del></del>	9	0	4	0	0 1.33
10. Amausi No.10	. L	12 1	0	13 2 5	1.81	1.81 Amausi Dy.	298	72	75	0.08	06'0	1	7	0	F-4	0	0.52
Sub-Total					39.11		2,925	702	731			٥	73	2	22	2	2 11.24
B. Lift Irrigation Canal	nal		;														
11. Amausi No.11					2.50		(2,161)	(519)	(540)	0.72	2.00	0	0	0	0	0	0
Total							2,925	702	731			6	73	2	22	2	2 11.24

Note Abbreviation DRB:
VRB:
FP:
HR:

District Road Bridge Village Road Bridge Foot Path Head Regulator

Table F.53 General Features of Proposed Minor Irrigation Canal in Sataon Area

										٠.						l	
		Locati	g	wan Dy.	Canal	Diverted		Proposed		Proposed	Canal_	~	Nos. of Smicture	ructur	8	$\mathbb{I}$	Lining
Canal Name	43	Position	BP.	- EP	Length	from	CC.A.	Irrigation Area	1	Capacity	Base 1	HR Q	Outlet	Bridge	e E		Length
					(km)		(ha)	Kharif	Rabi	(cumec)	(m)		EXA EXA	B VRB	出	8	(km)
1. Maurawan	No.1	œ	0 1 100	- 1 6 130	2.62	Maurawan Disty.	180	43	45	0.04	0.60	-	4		0.	0	1.04
2. Maurawan	No.2	ᆈ	0 1 286	- 0 1 286 0	Outlet Only	Maurawan Disty.	4		7	000				0	0	Ö	
3. Maurawan	No.3	,_1	0.3.0	-360	5.43	Kusumbi Mr.	286	69	72	90:0	99.	Φ,	7	7	1 1		2.16
4. Maurawan	No.4	24	2 0 420	- 4 0 130	3.13	Maurawan Disty.	353	85	88	0.07	96.0	-	00	0	1 0	+~4	1.24
5. Maurawan	No.5	H	4 3 330	- 4 5 60	0.32	Maurawan Disty.	171	41	43	0.04	99.0	<del></del> 1	4	0	0 0	0	0.13
6. Maurawan	No.6	œ	4 4 500	- 6 4 475	3,21	Maurawan Disty.	243	28	61	0.05	0.60		5	0	1 0	0	1.28
7. Maurawan	No.7	ų	460	- 8 1 500	5.58	Sahrawan Mr.	292	70	73	90.0	0.60	o i	4	r-4	2		2.22
8. Maurawan	No.8	œ	6 4 0	- 10 0 30	5.64	Kanthara	382	8	96	0.08	0.90	O	6	7	1 0	0	2.24
9. Maurawan	No.9	7	8 4 0	- 10 1 400	2.74	Asoha Mr.	359	86	8	0.08	0.00	0	∞	0	0	0	1.3
10. Maurawan	No.10	ል	10 4 400	- 12 5 300	3.39	Maurawan Disty.	561	135	140	0.12	0.90	y==4	2	0	1 0	0	1.35
11. Maurawan	No.11	, <del>L</del>	10 7 350	- 13 7 600	4.90	Maurawan Disty.	547	131	137	0.12	0.30		12	•	3.0	<del></del> 1	1.95
12. Maurawan	No.12	×	13 2 500	- 16 0 0	4.27	Maurawan Disty.	243	58	61	0.05	0.60	,4	9	Φ	1 0	7	1.70
13. Maurawan	No.13	ᆈ	14 7 500	- 18 2 300	5.37	Maurawan Disty.	599	72	75	0.06	0.60	<del>,</del>	7	0	2 0		2.14
14. Maurawan	No.14	~	16 1 60	- 19 2 0	5.01	Shahpur Mr.	237	ST	29	0.05	99.	0	\$	0	3.0	0	1.99
15. Maurawan	No.15	ᅱ	18 7 80	- 19 4 100	1.01	Sandauli Mr.	116	28	59	0.05	0.60	0	7	<b>,</b> 4	0 0	0	0.40
16. Maurawan	No.16	~	19 4 30	- 21 2 25	2.81	Bachhaura Mr.	228	55	27	0.05	0.60	0	מא	0	0 0	,	1.12
17. Maurawan	No.17	J	. 07 2 91	- 22 6 100	5.04	Para Mr.	834	500 500	500	0.18	1.20	0	61	0	0	<b>-</b> 4	5.8
18. Maurawan	No.18	×	21 3 650	- 25 1 200	5.90	Maurawan Disty.	499	120	125	0.10	0.90	4	15	Φ	3		2.35
19. Maurawan	No.19	1	22 7 330	- 25 0 100	3.35	Maurawan Disty.	372	8	83	0.08	0.90		17	Ö	1 0	0	1.33
20. Maurawan	No.20	ρź	25 4 400	- 27 6 484	3.65	Lachhi Khera Mr.	297	፲፫	74	0.06	0.60	Ö	7	0	2	0	1.45
21. Maurawan	No.21	11	25 4 600	- 28 0 100	3.87	Lakhanpur Mr.	278	29	70	0.06	0.60		و		7		1.54
Sub-Total					77.26		6,781	1,627	1,695			11	159	,	42	0	30.72
Sazaon Study Area	Ę3													:		٠.	
22. Maurawan	No.22	ፚ	28 3 500	- 31 3 330	4.78	Maurawan Disty.	288	69	72	0.06	0.60	_	7	0	2	-	2.07
23. Maurawan	No.23	<b>.</b> 1		- 30 7 330	4.54	Narichak Disty.	215	52	54	0.05	0.60	0	1.5	<b>-</b>	2.0	~	1.97
24. Maurawan	No.24	اسر	31 2 400	- 35 2 330	6.42	Maurawan Disty.	359		8	0.08	ა გ	-	33		3 0	, <b>-</b> 4	2.78
25. Maurawan	No.25	∝	31 5 550	- 33 2 390	2.57	Maurawan Disty.	191	46	84	0.0	0.60	_	7	0	5	0	1.11
26. Maurawan	No.26	2	34 3 540	- 36 0 0	2.45	Maurawan Disty.	186	45	47	0.0	0.60		4	г	0	Н	1.06
27. Maurawan	No.27	æ	35 4 0	- 39 1 620	6.02	Bankat Mr.	453	109	113	0.10	0.00	0	10	3	1 0	0	2.60
Sub-Total					26.78		1,692	406	423			4	8	S	10 0	4	11.58
Total					104.04		8,473	2,034	2,118			15	205	13	34.2	13	42.30
LIFT CANAL	X 28				5	I iff Canal	2 822	11.5	70,	0.84	2	c	c	· c	c	C	100
Total	2				105.04		8.473	2	2.118			15	205			13	43.30
								l									

Table F.54 General Features of Proposed Minor Irrigation Canal in Sursa Area

		Location	Location on Badaicha Dy		Canal	Diverted	4	Proposed	ፚ	Proposed	Canal	_	Nos. of Structure	Structi	ire			Lini	Lining
Canal Name	e)	Position	BP -	EP	Length	from	C.C.A. Irrigation Area	rigation		Capacity	Base	HR O	Outlet	Br	Bridge		Drain	Length	grh
					(km)		(ha) F	Kharif Rabi		(cnmec)	(m)		គ	DRB VRB FP	13 13 13 13 13 13 13 13 13 13 13 13 13 1		CB Cross	(km)	ੰ ਜ
A. Parallel Irrigation Canal	tion Car	la.																	
1. Badaicha	No.1	껖	0 1 226 -	0 1 226 - 0 1 226 Ou	rtlet Only	Badaicha Disty.	22	5	9	0.00	0.60	0		0	0	0			
2. Badaicha	No.2	1	0 2 467 -	1 3 300	1.76	Badaicha Disty.	123	30	31	0.03	0.60	_	8	0	0	0		r1	1.02
3. Badaicha	No.3	<b>~</b>	0 2 134 -	4 2 625	6.59	Kamrauli Mr.	298	144	150	0.13	1.20	0	4		m	0	_	m	3.82
4. Badaicha	No.4	7	1 7 396 -	5 2 603	5.49	Badaicha Disty.	684	164	171	0.15	1.20	~~	91		2		0	m	3.19
5. Badaicha	No.5	×	4 3 441 -	4 7 49	0.69	Sursa Mr.	148	36	37	0.03	0.60	0	4	0	Ö	0	0	_	0.40
6. Badaicha	No.6	J	5 4 118 -	9 3 115	6.24	Barha Mr.	327	78	82	0.07	0.00	0	<b>∞</b>	0	3		0	(r)	3.62
7. Badaicha	No.7	œ	6 2 160 -	9 4 155	5.23	Badaicha Disty.	407	86	102	0.09	0.90	<b>—</b>	6	0	٠ د	_	_		3.03
8. Badaicha	No.8	ı	9 6 241 -	14 0 613	6.95	Pachkohra Mr.	936	225	234	0.21	1.50	0	21	0	4	0	0	4	1.03
9. Badaicha	No.9	œ	9 7 200 -	12 7 180	4.82	Badaicha Disty.	786	237	247	0.22	1.50	7	25	0	m	0	0	7	2.80
10. Badaicha	No.10	ഷ	13 2 278 -	. 17 6 396	7.28	Badaicha Disty.	1,080	259	270	0.24	1.50	, <del></del> (	16	<del></del> 4	w	0		4	<del>1</del> .22
Total					45.04		5,312	1,275	1,328			2	117	60	20	3	0	26	26.14

Note Abbreviation

DRB: District Road Bridge VRB: Village Road Bridge FP: Foot Path HR: Head Regulator

Table F.55 General Features of Proposed Minor Irrigation Canal in Purwa Area

		Locat	ion on Dy	Location on Dy. Concerned		Canal	Diverted		Proposed	¹	Proposed	Canai		Nos. of	Nos. of Structure	ıre		Lining
Canal Name	છ	Position	n BP	· 田		Length	from	C.C.A.	C.C.A. Irrigation Area	Area (	Capacity	Base	田	Outlet	B	Bridge		ength
						(km)		(ha)	Kharif	-	(cumec)	(m)		ı	DRB	VRB	出	(km)
A. Parallel Irrigation Canal	ration Ca	mai												,			•	
1. Purwa	No.1	ᆔ	0 1 430	0 - 1 7	628	2.88	Purwa Disty.	133	32	33	0.04	09.0	1	4	-		0	1.45
2. Purwa	No.2	ፚ	0 3 50	- 1.7	321	2.50	Purwa Disty.	180	43	45	0.05	09:0	7	4	<del></del>	-	0	1.25
3. Purwa	No.3	J	2 1 330	0 - 2 3	200	0.36	Bhopatpur Mr.	68	21	23	0.03	09.0	0	7	0	0	0	0.18
4. Purwa	No.4	œ	2 4 54	5 - 27	175	0.49	Purwa Disty.	88.	21	22	0.03	0.60	-	7	0	0	0	0.25
5. Purwa	No.5	ద	3 2 33(	0 - 4 3	380	1.83	Bhadnang Mr.	376	9	94	0.11	0.00	0	7	0		0	0.92
6. Purwa	No.6	ᅯ	3 3 475	9 - 4 5	330	1.97	Purwa Disty.	71	17	81	0.02	0.60		00	0	F~4	0	0.99
7. Purwa	No.7	្អ	5 4 200	0 - 9 1	290	5.95	Purwa Disty.	627	150	157	0.19	1.20	~	15	0	S	0	2.99
8. Purwa	No.8	ĸ	6 1 232	2 - 7 4	170	2.19	Purwa Disty.	76	23	22	0.03	0.60	porm(	7	0	7	0	1.10
9. Purwa	No.9	æ	7 7 35(	0 - 9 3	110	2.34	Tupra Mr.	239	57	B	0.07	0.00	0	9	0	7	<del>-</del>	1.18
10. Purwa	No.10	Ж	9 5 330	96-0	181 Onl	mly Outlet	Pinjura Mr.	35	8	6	0.01	0.60	0		0	0	0	٠
Sub-Total						20.51		1,900	456	475			9	45	2	13	Ţ	10.30
		٠			:.				,					٠.				•
1. Tikar	No.1	<b>,</b>	0 0 300	0 - 1.5	280	2.70	Tikar Disty.	569	65	67	0.03	0.60	<b></b> 1	Q	0	7	0	1.36
2. Tikar	No.2	×	R 0 2 400	- 2	2 612	3.28	Tikar Disty.	251	8	63	0.03	0.60		9	0	2	0	1.65
Sub-Total						5.98		520	125	130		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2	12	0	4	0	3.01
Total	44					52.98		2,420	581	605			8	57	2	17	1	13.31

Note Abbreviation

DRB District Road Bridge VRB Village Road Bridge FP: Foot Path HR: Head Regulator

Table F.56 General Features of Sai River Pump Lift Irrigation Schemes

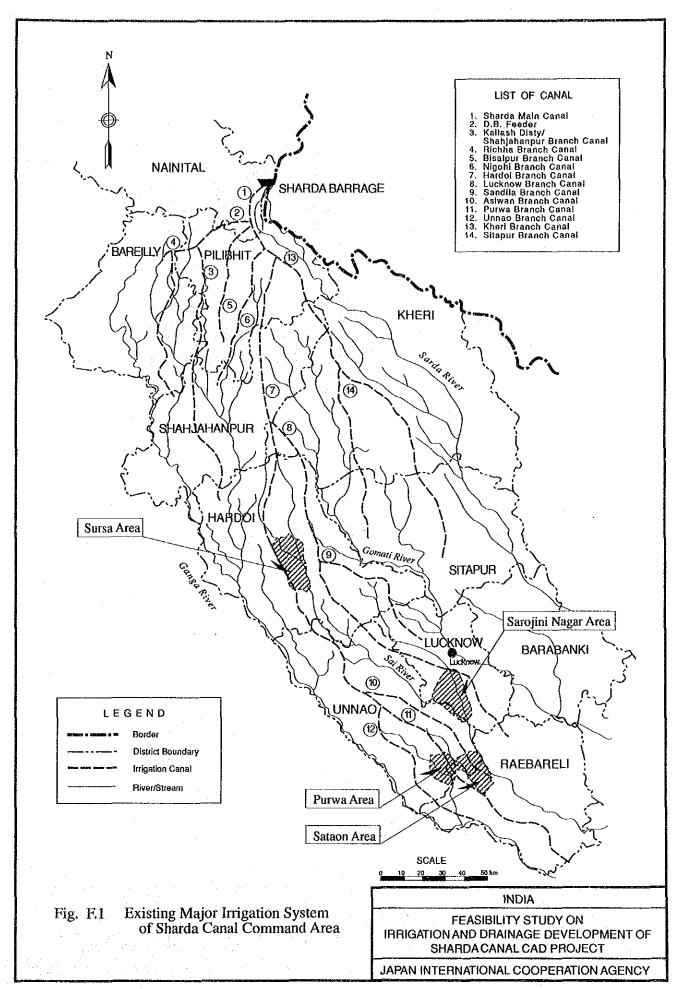
Description	Sarojini Nagar Area	Sataon Arca
1. C.C.A.	2,161 ha	2,822 ha
2, P.I.A.	519 ha	677 ha
3. U.W.R.	1.20 liter/sec/ha	1.25 liter/sec/ha
	1.60 liter/sec/ha	1.67 liter/sec/ha
	18hrs./day operation in max.	18hrs./day operation in max
4. Pump Capacity	0.83 m3/sec	1.13 m3/sec
	50 m3/min./1 no.	68 m3/min./1 no.
	25 m3/min./2 no.	34 m3/min./2 no.
5. Head		, ,
River Bed El.	109 m	100.5 m
Water Level	110.5 m	101.5 m
Pump Outlet El.	120 m	114 m
Net Head	9.5 m	12.5 m
Total Head	10.25 m	12.95 m
Say	11.0 m	13.0 m
# Head Loss		
C=	100	100
Pipe Dia.	450 mm	600 mm
Velocity	2.1 m/sec	2 m/sec
Loss	1.5 m/100m	0.9 m/100m
6. Pump Type		
Horse Power	68 kw	102 kw
Pump Dia.	450 mm	500 mm

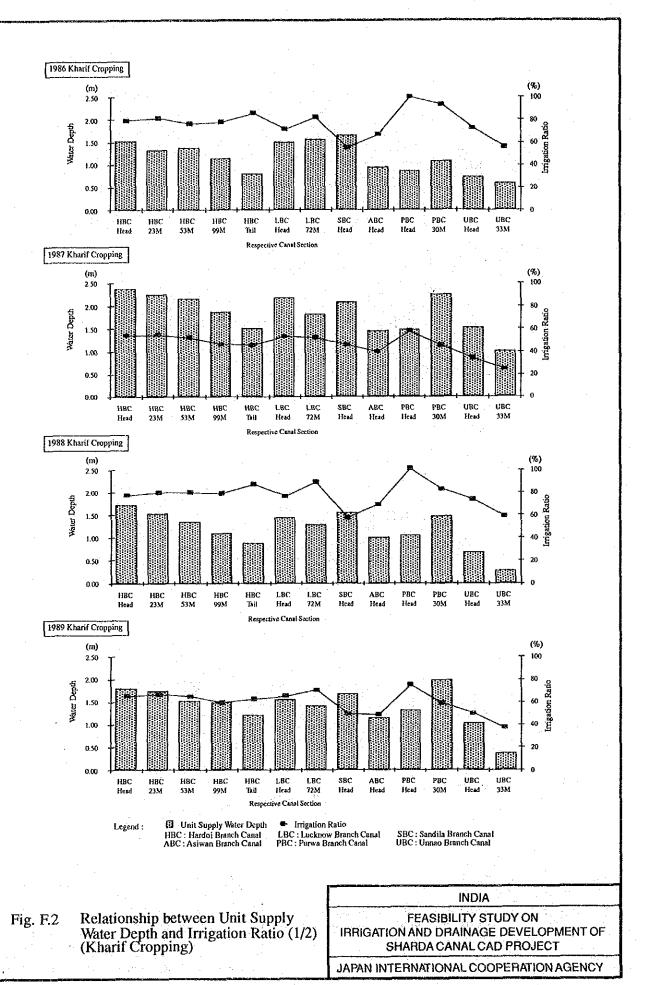
Table F.57 Cost Estimate of Improvement of Control Facilities of Hardoi Branch

	Descriptio	n		Work Q	uantity			HARDOI	Unit Pric	е	Amount	(1,000 RS	)	_
			Amausi	Sataon	Sursa	Purwa	Total	BRANCH	F/C	L/C	F/C	L/C	Total	Remarks
Canal	Length	(km)	39	104	45	53	241	690						
	C.C.A.	(ha)	2,925	8,473	5,312	2,420	19,130	54,712					•	
Nos. of	Structure													
	HR		. 9	15	5	8	37	106	2,230	60,610	236	6,414	6,650	MST-03
	Outlet		73	205	117	57	452	1,293	- 530	4,260	685	5,507	6,192	MST-04
	Bridge	DRB	2	13	3	2	20	57	5,080	213,410	291	12,207	12,498	MST-11
		VRB	22	34	20	17	93	266	3,400	156,720	904	41,685	42,589	MST-12
		FP	2	2	3	1	8	23	120	1,850	3	42.	45	MST-13
	Drainage	Crossing	. 2	13	0	0	15	43	940	34,080	40	1,462	1,502	MST-06
Striping		1000m2	83	191	111	49	434	1,241	11	3	13,656	3,724	17,380	E-02
Excavat		1000m2	30	59	42	16	147	420	19	3	7,971	1,259	9,230	
Filling	Volume	1000m3	89	119	84	32	323	924	7	47	6,467	43,424	•	
-	Sub-Total										30,253	115,724	145,977	
Replace	ment of He	ad Regula	tor along	Hardoi	Branch	Canal		•						
	Туре-А	nos.						52	5,790	7,680	301	399	700	MST-05
	Type-B	nos.						1	10,890	17,400	11	17	28	MST-05-1
1	Туре-С	nos.			-			2	19,820	24,720	40	49	89	MST-05-2
	Sub-Total										352	466	818	
	Total										30,605	116,190	146,795	

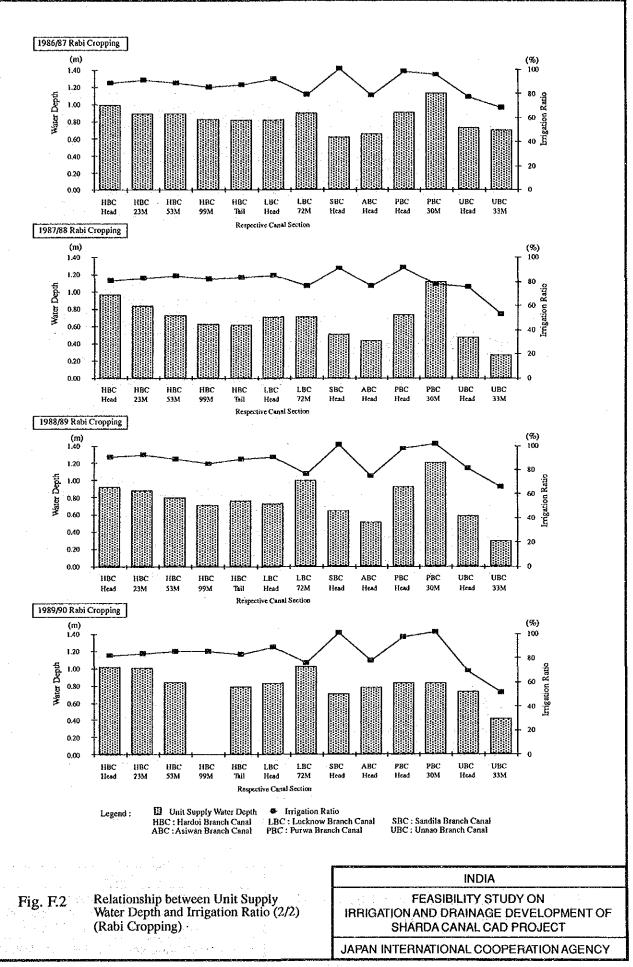
Note: Unit price of Sursa Study Area is applied for the estimation.

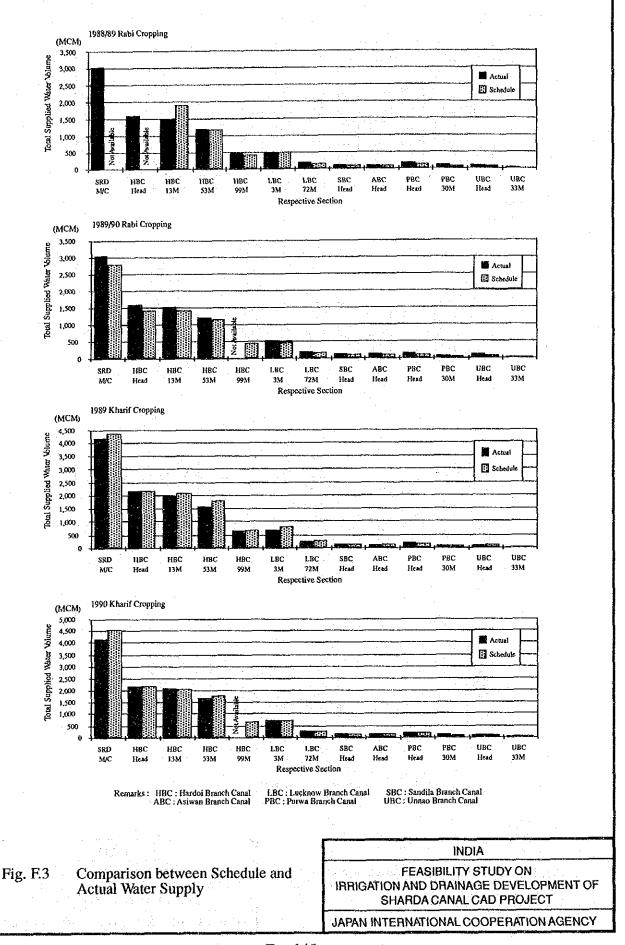
## **FIGURES**

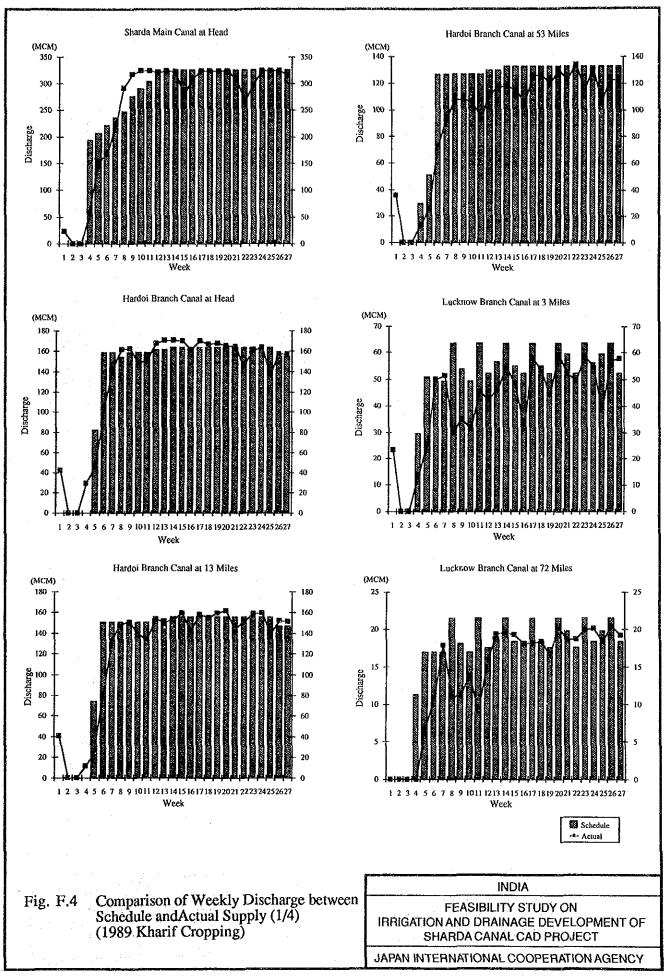


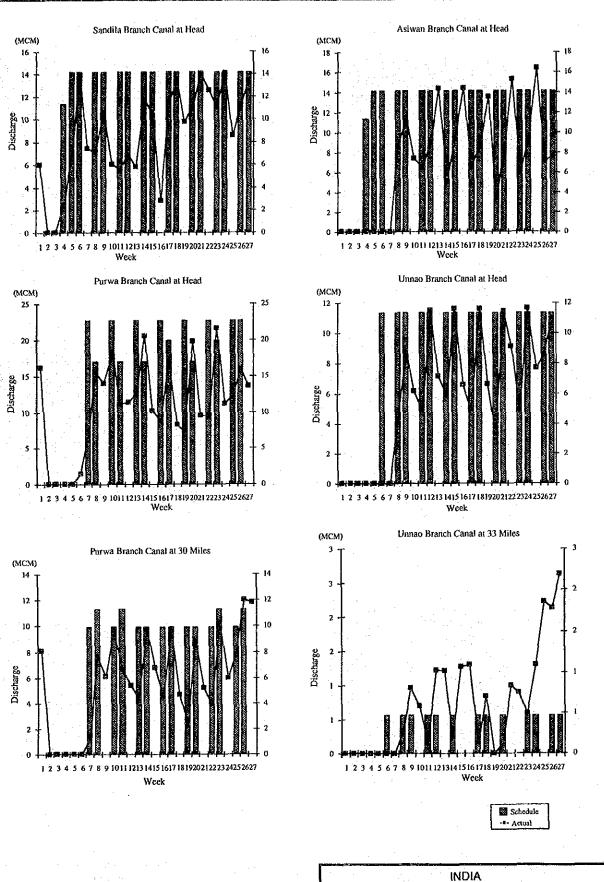


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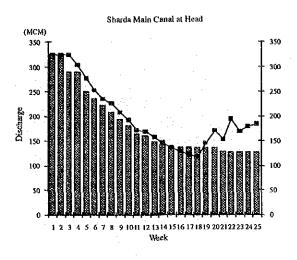


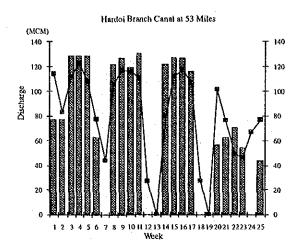


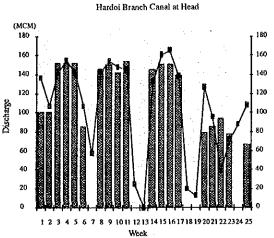
Comparison of Weekly Discharge between Schedule and Actual Supply (2/4) (1989 Kharif Cropping) Fig. F.4

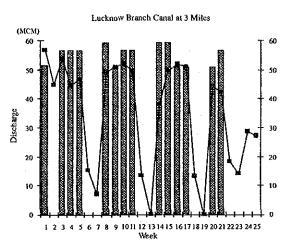
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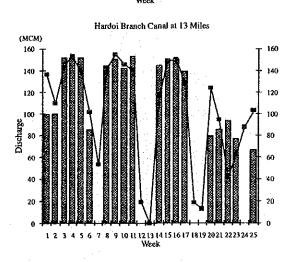
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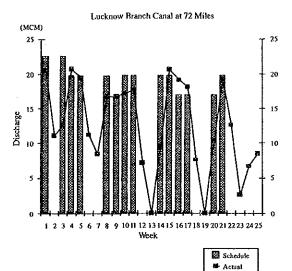


Fig. F.4 Comparison of Weekly Discharge between Schedule and Actual Supply (3/4) (1989/90 Rabi Cropping)

**INDIA** 

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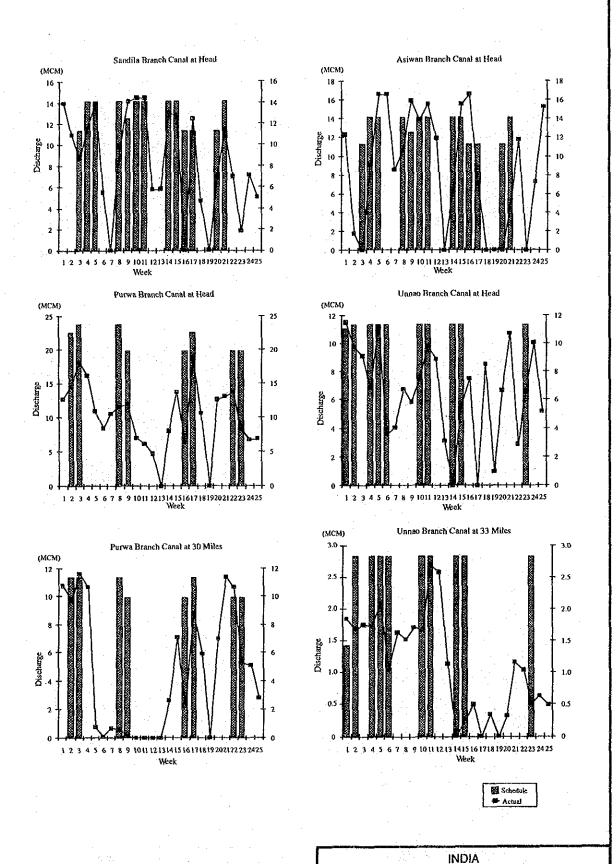


Fig. F.4 Comparison of Weekly Discharge between Schedule and Actual Supply (4/4) (1989/90 Rabi Cropping)

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