Tables

Table D1.3-1 Initial Candidate Sub-projects of NWISP in the Study Area

No.	Name of sub-project	Code in NWISP	Province /District	Commune	Category	Irrigation area (Ha)	Peak/design water req.(m3/s)	Status	River basin in the Study/Code in JICA Inventory
1	Bomnork	KK3	PUR/ Krakor	Chheu Tom, Svay Sar	RB2	2,137*	No data	First B. F/S under RB2	Boribo/ KRK-001
2	Kuch Noup	KK8-KK11	PUR/ Krakor	Kbal Trach	ST	746	No data	First B. F/S under RB2	Boribo/ KRK-015
3	Anlong Svay	BK2	PUR/ Bakan	Rumlech	RB2	1,200 Wet 50 Dry	No data	First B. F/S under RB2	Moung R./ BAK-005
4	Vaot Run	PURI	PUR/ Krakor	Sna Ansa	ST	150*	1.08	First F/S Stand-alone	Boribo/ KRK-011
5	Damnak Kranh	KK13	PUR/ Krakor	Sna Ansa	ST	105	0.51	First B. F/S Stand-alone	Boribo/ KRK-012
6	Roneam Prayol	BK3	PUR/ Bakan	Svay Doun Kaev	RB2	900 Wet 50 Dry	No data	First B. F/S under RB2	Moung R/. BAK-006
7	Dang Tuek Leach	PUR2	PUR/ Krakor	Thnot Chum	ST	2,447*	No data	First B. F/S under RB2	Boribo/ KRK-001
8	Krouch Saeuch	BK5	PUR/ Balam	Khnar Totueng	RB2	566*	No data	First B. F/S under RB2	Moung R./ BAK-003
9	Kansen g	KK7	PUR/ Kralor	Ansa Chambak	ST	350 or less*	No data	First B. F/S Stand-alone	Boribo KRK-009
10	Angkonh	KK6	PUR/ Krakor	Ansa Chambak	ST	1,309*	No data	To be considered in next F/S Stand-alone	Boribo/ KRK-008
11	Tram Mneash	KK51	PUR/ Krakor	Thnot Chum	RB2	640*	No data	First B. F/S under RB2	Boribo/ KRK-002
12	Prek Chik	M51	BTG/ Moung Ruessei	Prey Svay, Kear, Preaek chik	RB2	2,600 Wet 200 Dry	No data	First B. F/S under RB2	Moung R./ MRS-002
13	Koas Kralor	KK50	BTG/ Koas Krala	Chnalmon, Kaos Kralor	ST	447	No data	First B. F/S Stand-alone	Battambang R./ KKL-001 – 007**
14	Chork Reservoir	M53	BTG/ Moung Ruessei	Kokosh, Prey Touch	ST	1,600	No data	First B. F/S Stand-alone	Battambang/ MRS-002
15	Stung Chas	EP53	BTG/ Sangkae	O Dambang, Anlongvil	ST	2,900*	No data	To be considered in next F/S Stand-alone	Battambang/ BTB-001
16	O Kroch	BAT3	BTG/ Rotanak Mondol	Treng	ST	475*	No data	To be considered in next F/S Stand-alone	Battambang/ RTM-007
17	Beoung Ampil	RM5	BTG/ Ratanak Mondol	Sdao, Sneung	ST	100*	No data	First B. F/S Stand-alone	Battambang***

Note: PUR=Pursat Province, BTG=Battambang Province,
RB=River basin, ST=Stand alone, First B. = First batch, F/S = Feasibility study
* The irrigation area will be confirmed by feasibility study.
** The JICA Study Team consideres Koas Kralor is located in the Battambang river basin
*** The system is located very near but outside of the Study Area.

Source: JICA Study Team based on the information provided by consultant of NWISP

Table D1.3-2 Major Proposed Structures by Multi-purpose Water Resources Development Project in Krang Ponley River Basin (KOICA)

Dams

Name of dams	Dam crest length (km)	Dam crest width after rehab. (m)	N. High WL - Low WL (m)	Effective storage (MCM)
Peam Levear	2.8	22.0	5.0	8.15
O Tang	3.4	9.0	5.0	6.13
Anlong Chrey	6.1	8.0	4.5	14.03
Prambei Mom	1.0	8.0	4.0	2.91
Kdol Dam	1.8	11.0	4.0	4.16

Canals

Name of canals	Length	Design discharge (m3/sec)	Bottom width (m)	Side slope
Peam Levear Dam – Otang Dam	1.9	3.60	2.0	1:2.0
O Tang Dam – New Canal	8.9	4.56	3.5	1:2.0
Anlong Chrey Dam – Prambei Mom Dam	4.4	2.12	2.0 – 3.0	1:2.0
Tvay Regular's Diversion Canal	25.0	3.60	2.0 – 3.5	1:2.0

Hydraulic structures

Location	Purpose	Type	B×H	Gate size and nos. B×H×No.
Peam Levear	FC + PW	Spillway	18.4×8.5	4.0×5.0×4
	Irrigation	Box culvert	2.0×2.0	2.0×2.0×1
	Irrigation	Box culvert	2.0×2.0	2.0×2.0×1
	DC	Regulator	4.0×6.0	4.0×4.5×1
O Tang	Irrigation	Box culvert	2.0×2.0	2.0×2.0×1
	FC + Irrigation	Spillway	6.8×8.0	3.0×5.0×1
	Irrigation	Box culvert	2.0×2.0	2.0×2.0×1
	DC	Regulator	4.0×6.5	4.0×5.0×1
	CV	Box culvert	2.0×2.0	-
Anlong Chrey	Irrigation	Box culvert	2.0×2.0	2.0×2.0×2
	FC + PW	Spillway	18.4×8.5	4.0×4.5×4
	FC + Irrigation	Spillway	18.4×8.5	4.0×4.05×4
Prambei Mom	CV	Box culvert	2.0×2.0	-
	Irrigation	Box culvert	2.0×2.0	2.0×2.0×1
	FC + Irrigation	Spillway	5.8×6.0	2.5×4.0×2
Kdol Dam	FC + Irrigation	Regulator	8.8×5.0	4.0×3.5×2
	Irrigation	Box culvert	2.0×2.0	2.0×2.0×1
Tavay	FC + PW	Regulator	61.6×6.0	4.0×3.0×13
	Irrigation	Box culvert	2.0×2.0	2.0×2.0×1
	CV	Box culvert	2.0×2.0	-
Krapeu Truom	FC + PW	Regulator	66.4×4.8	4.0×3.0×14
Yutasas	FC + PG	Regulator	28.0×4.5	4.0×3.5×6
	FC	Regulator	18.4×4.5	4.0×3.5×4
	Irrigation	Regulator	8.8×4.5	4.0×3.5×2

Note) FC: Flood control, PW: Power generation, DC: Discharge control, CV: Conveyance of water

Power generation plant

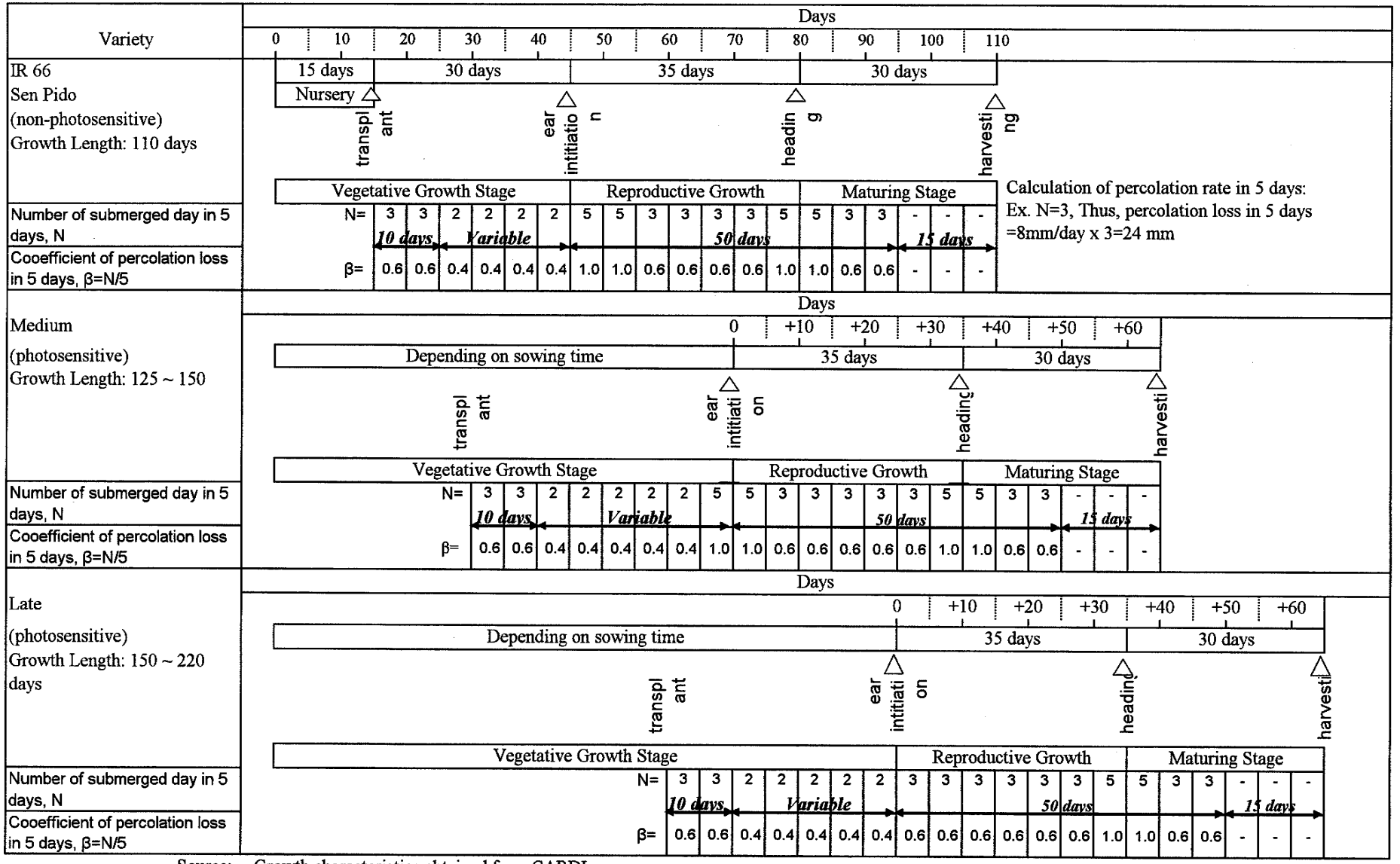
Location	Location	Water source for power generation	Power generation capacity (kW)	Effective head (m)	Generation discharge (m3/sec)	Annual power output (MWh)
Peam Levear	Peam Levear Dam	River maint. flow	31	12.13	0.36	120
Anlong Chrey	Anlong Chrey Dam	Irrigation water	122	6.96	2.50	474
Tavay	Tavay Regulator	Irrigation water	35	2.38	2.10	136
Krapeu Trum	Krapeu Trum Regulator	Irrigation water	28	2.06	1.90	108
Yutasas	Yutasas regulator	Irrigation water	37	2.69	1.94	143

Table D1.3-3 Water Resources Potential for Hydropower and Irrigation Development in Cambodia (related to the Study Area)

No.	Name	Purpose	Max installed capacity (MW)	Head (m)	Max discharge (m3/s)	Potential irrigation area (Ha)	Volume of storage (million m3)	Investment cost (million US$)	Date of study	Kind of study	Remark
1	Battambang 1	P	24	34	52	-		48.9	1995		
2	Battambang 2	P	36	450	5.5	-	110	65.1	1995	Desk	
3	Battambang diversion weir at Kantu	I				68,000		40	1970	F/S	Kong Hort 24,700Ha
4	Lower Moung diversion weir	I				35,000			1990	Desk	Prek Chik 5,000Ha
5	Stung Pursat 1	P	75	127	43	12,000	285	147	1984	Desk	
6	Stung Pursat 2	P	17	23	57	13,000	295	70	1984	Desk	
7	Stung Pursat 3	I				2,800		15.6	1984	Desk	
8	Stung Pursat 4	I				5,900		26.4	1984	Desk	
9	Stung Pursat 5	I				3,400		17.7	1984	Desk	
10	Stung Pursat Diversion Weir	I				3,400		7.5	1984	Desk	
11	Stung Boribo dam										

Source: Department of Water Resource Management and Conservation, MOWRAM.

Table D2.3-1 Growth Characteristics of Rice in Cambodia and Proposed Water Submergence



Source: - Growth characteristics obtained from CARDI
- Proposed water submergence made by Study Team

Table D2.3-2 Irrigation Water Requirement of Early Paddy (Transplanting) (1/2)

Item		Apr			May						Jun						Jul						Aug						Sep	
		16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10
ETo at Battambang	(mm/day)	5.10	5.10	5.10	4.85	4.85	4.85	4.85	4.85	4.85	4.35	4.35	4.35	4.35	4.35	4.35	4.43	4.43	4.43	4.43	4.43	4.43	3.98	3.98	3.98	3.98	3.98	3.98	3.85	3.85
Percolation	(mm/day)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
After transplanting, β									0.6	0.6																				
In vegetation, β											0.4	0.4	0.4																	
In reproductive, β														1.0	1.0	0.6	0.6	0.6	0.6	1.0	1.0									
In maturing, β																						0.6	0.6	-	-	-				
Effective rainfall	(mm/day)	0.60	2.14	1.50	1.84	1.58	1.82	3.28	0.92	1.33	1.68	3.32	3.62	6.54	1.64	5.06	3.16	1.60	2.38	1.38	3.22	2.67	3.42	1.64	3.44	2.88	2.96	3.83	2.22	1.72
Overall Irrigation efficiency	66%																													
1st block																														
Land preparation, LP	(mm/day)		9.0	12.2	14.7	17.8																								
Percolation, P×m	(mm/day)						3.0	3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0						
Crop coefficient, Kc							1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.00						
Consumptive use, ETo×Kc + P×β	(mm/day)						8.3	8.3	7.3	7.3	6.8	9.6	9.6	7.6	7.6	7.6	7.2	9.2	9.2	7.2	7.2	0.0	0.0	0.0						
FW=ETc + P - ER	(mm/day)						6.5	5.1	6.4	6.0	5.1	6.3	6.0	1.0	5.9	2.5	4.1	7.6	6.8	5.8	4.0	0.0	0.0	0.0						
Net field water req FW +LP	(mm/day)		9.0	12.2	14.7	17.8	6.5	5.1	6.4	6.0	5.1	6.3	6.0	1.0	5.9	2.5	4.1	7.6	6.8	5.8	4.0	0.0	0.0	0.0						
Unit diversion water requirement	(mm/day)		13.6	18.4	22.2	27.0	9.9	7.7	9.7	9.1	7.7	9.5	9.0	1.6	9.0	3.8	6.1	11.5	10.4	8.8	6.0	0.0	0.0	0.0						
Unit diversion water requirement	(l /sec/ha)		1.58	2.13	2.57	3.13	1.14	0.89	1.13	1.05	0.90	1.10	1.04	0.18	1.04	0.44	0.71	1.34	1.20	1.02	0.70	0.00	0.00	0.00						
2nd block																														
Land preparation, LP	(mm/day)			9.1	11.8	14.9	17.5																							
Percolation, P×m	(mm/day)							3.0	3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0					
Crop coefficient, Kc								1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00	0.00					
Consumptive use, ETo×Kc + P×β	(mm/day)							8.3	8.3	7.3	6.8	6.8	9.6	9.6	7.6	7.6	7.7	7.7	9.7	9.2	7.2	7.2	0.0	0.0	0.0					
FW=ETc + P - ER	(mm/day)							5.1	7.4	6.0	5.1	3.5	6.0	3.0	5.9	2.5	4.5	6.1	7.3	7.8	4.0	4.5	0.0	0.0	0.0					
Net field water req FW +LP	(mm/day)			9.1	11.8	14.9	17.5	5.1	7.4	6.0	5.1	3.5	6.0	3.0	5.9	2.5	4.5	6.1	7.3	7.8	4.0	4.5	0.0	0.0	0.0					
Unit diversion water requirement	(mm/day)			13.8	17.9	22.6	26.6	7.7	11.2	9.1	7.7	5.3	9.0	4.6	9.0	3.8	6.8	9.2	11.0	11.9	6.0	6.9	0.0	0.0	0.0					
Unit diversion water requirement	(l /sec/ha)			1.60	2.08	2.61	3.08	0.89	1.30	1.05	0.90	0.61	1.04	0.53	1.04	0.44	0.79	1.06	1.28	1.37	0.70	0.80	0.00	0.00	0.00					
3rd block																														
Land preparation, LP	(mm/day)				9.0	12.0	14.7	15.8																						
Percolation, P×m	(mm/day)								3.0	3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0				
Crop coefficient, Kc									1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00	0.00				
Consumptive use, ETo×Kc + P×β	(mm/day)								8.3	8.3	6.8	6.8	6.8	9.6	9.6	7.6	7.7	7.7	7.7	9.7	9.2	7.2	6.8	0.0	0.0	0.0				
FW=ETc + P - ER	(mm/day)								7.4	7.0	5.1	3.5	3.2	3.0	7.9	2.5	4.5	6.1	5.3	8.3	6.0	4.5	3.4	0.0	0.0	0.0				
Net field water req FW +LP	(mm/day)				9.0	12.0	14.7	15.8	7.4	7.0	5.1	3.5	3.2	3.0	7.9	2.5	4.5	6.1	5.3	8.3	6.0	4.5	3.4	0.0	0.0	0.0				
Unit diversion water requirement	(mm/day)				13.7	18.2	22.3	23.9	11.2	10.6	7.7	5.3	4.8	4.6	12.0	3.8	6.8	9.2	8.0	12.5	9.1	6.9	5.1	0.0	0.0	0.0				
Unit diversion water requirement	(l /sec/ha)				1.58	2.10	2.58	2.77	1.30	1.23	0.90	0.61	0.56	0.53	1.39	0.44	0.79	1.06	0.93	1.45	1.05	0.80	0.59	0.00	0.00	0.00				
4th block																														
Land preparation, LP	(mm/day)					9.1	11.9	13.4	18.6																					
Percolation, P×m	(mm/day)									3.0	3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0			
Crop coefficient, Kc										1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00	0.00			
Consumptive use, ETo×Kc + P×β	(mm/day)									8.3	7.8	6.8	6.8	6.8	9.6	9.6	7.7	7.7	7.7	7.7	9.7	9.2	6.8	6.8	0.0	0.0	0.0			
FW=ETc + P - ER	(mm/day)									7.0	6.1	3.5	3.2	0.2	7.9	4.5	4.5	6.1	5.3	6.3	6.4	6.5	3.4	5.1	0.0	0.0	0.0			
Net field water req FW +LP	(mm/day)					9.1	11.9	13.4	18.6	7.0	6.1	3.5	3.2	0.2	7.9	4.5	4.5	6.1	5.3	6.3	6.4	6.5	3.4	5.1	0.0	0.0	0.0			
Unit diversion water requirement	(mm/day)					13.7	18.0	20.3	28.2	10.6	9.3	5.3	4.8	0.4	12.0	6.8	6.8	9.2	8.0	9.5	9.8	9.9	5.1	7.8	0.0	0.0	0.0			
Unit diversion water requirement	(l /sec/ha)					1.59	2.08	2.36	3.26	1.23	1.07	0.61	0.56	0.04	1.39	0.79	0.79	1.06	0.93	1.10	1.13	1.15	0.59	0.90	0.00	0.00	0.00			
5th block																														
Land preparation, LP	(mm/day)						9.0	11.1	15.5	18.1																				
Percolation, P×m	(mm/day)										3.0	3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0		
Crop coefficient, Kc											1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00	0.00		
Consumptive use, ETo×Kc + P×β	(mm/day)										7.8	7.8	6.8	6.8	6.8	9.6	9.7	7.7	7.7	7.7	7.7	9.7	8.8	6.8	6.8	0.0	0.0	0.0		
FW=ETc + P - ER	(mm/day)										6.1	4.5	3.2	0.2	5.1	4.5	6.5	6.1	5.3	6.3	4.4	7.0	5.4	5.1	3.3	0.0	0.0	0.0		
Net field water req FW +LP	(mm/day)						9.0	11.1	15.5	18.1	6.1	4.5	3.2	0.2	5.1	4.5	6.5	6.1	5.3	6.3	4.4	7.0	5.4	5.1	3.3	0.0	0.0	0.0		
Unit diversion water requirement	(mm/day)						13.7	16.8	23.4	27.5	9.3	6.8	4.8	0.4	7.8	6.8	9.8	9.2	8.0	9.5	6.7	10.6	8.1	7.8	5.1	0.0	0.0	0.0		
Unit diversion water requirement	(l /sec/ha)						1.58	1.94	2.71	3.18	1.07	0.78	0.56	0.04	0.90	0.79	1.14	1.06	0.93	1.10	0.78	1.23	0.94	0.90	0.59	0.00	0.00	0.00		
6th block																														
Land preparation, LP	(mm/day)							8.7	12.3	15.1	17.1																			
Percolation, P×m	(mm/day)											3.0	3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	
Crop coefficient, Kc												1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00	0.00	
Consumptive use, ETo×Kc + P×β	(mm/day)											7.8	7.8	6.8	6.8	6.8	9.7	9.7	7.7	7.7	7.7	7.7	9.2	8.8	6.8	6.8	0.0	0.0	0.0	
FW=ETc + P - ER	(mm/day)											4.5	4.2	0.2	5.1	1.7	6.5	8.1	5.3	6.3	4.4	5.0	5.8	7.1	3.3	3.9	0.0	0.0	0.0	
Net field water req FW +LP	(mm/day)							8.7	12.3	15.1	17.1	4.5	4.2	0.2	5.1	1.7	6.5	8.1	5.3	6.3	4.4	5.0	5.8	7.1	3.3	3.9	0.0	0.0	0.0	
Unit diversion water requirement	(mm/day)							13.2	18.7	22.9	25.9	6.8	6.3	0.4	7.8	2.6	9.8	12.2	8.0	9.5	6.7	7.6	8.7	10.8	5.1	5.9	0.0	0.0	0.0	
Unit diversion water requirement	(l /sec/ha)							1.53	2.16	2.65	2.99	0.78	0.73	0.04	0.90	0.30	1.14	1.41	0.93	1.10	0.78	0.88	1.01	1.25	0.59	0.68	0.00	0.00	0.00	

Table D2.3-2 Irrigation Water Requirement of Early Paddy (Transplanting) (2/2)

Summary table of unit diversion water requirement

		Apr			May						Jun						Jul						Aug						Sep		Total
					1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	(mm)
1st block	(l /sec/ha)		1.58	2.13	2.57	3.13	1.14	0.89	1.13	1.05	0.90	1.10	1.04	0.18	1.04	0.44	0.71	1.34	1.20	1.02	0.70	0.00	0.00	0.00							1,006
2nd block	(l /sec/ha)			1.60	2.08	2.61	3.08	0.89	1.30	1.05	0.90	0.61	1.04	0.53	1.04	0.44	0.79	1.06	1.28	1.37	0.70	0.80	0.00	0.00	0.00						1,001
3rd block	(l /sec/ha)				1.58	2.10	2.58	2.77	1.30	1.23	0.90	0.61	0.56	0.53	1.39	0.44	0.79	1.06	0.93	1.45	1.05	0.80	0.59	0.00	0.00	0.00					978
4th block	(l /sec/ha)					1.59	2.08	2.36	3.26	1.23	1.07	0.61	0.56	0.04	1.39	0.79	0.79	1.06	0.93	1.10	1.13	1.15	0.59	0.90	0.00	0.00	0.00				977
5th block	(l /sec/ha)						1.58	1.94	2.71	3.18	1.07	0.78	0.56	0.04	0.90	0.79	1.14	1.06	0.93	1.10	0.78	1.23	0.94	0.90	0.59	0.00	0.00	0.00			960
6th block	(l /sec/ha)							1.53	2.16	2.65	2.99	0.78	0.73	0.04	0.90	0.30	1.14	1.41	0.93	1.10	0.78	0.88	1.01	1.25	0.59	0.68	0.00	0.00	0.00		945
Average	(l /sec/ha)		0.26	0.62	1.04	1.57	1.74	1.73	1.98	1.73	1.30	0.75	0.75	0.23	1.11	0.53	0.89	1.17	1.03	1.19	0.86	0.81	0.52	0.51	0.20	0.11	0.00	0.00	0.00		978

Table D2.3-3 Irrigation Water Requirement of Medium Paddy (Transplanting) (1/2)

Item		Jun				Jul						Aug						Sep						Oct						Nov						Dec					
		11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25
ETo at Battambang	(mm/day)	4.35	4.35	4.35	4.35	4.43	4.43	4.43	4.43	4.43	4.43	3.98	3.98	3.98	3.98	3.98	3.98	3.85	3.85	3.85	3.85	3.85	3.85	3.77	3.77	3.77	3.77	3.77	3.77	3.59	3.59	3.59	3.59	3.59	3.59	3.61	3.61	3.61	3.61	3.61
Percolation	(mm/day)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
After transplanting, δ										0.6	0.6																													
In vegetation, β												0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4																				
In reproductive, β																					1.0	1.0	0.6	0.6	0.6	0.6	0.6	0.6	1.0	1.0											
In maturing, β																															0.6	0.6	-	-	-						
Effective rainfall	(mm/day)	3.62	6.54	1.64	5.06	3.16	1.60	2.38	1.38	3.22	2.67	3.42	1.64	3.44	2.88	2.96	3.83	2.22	1.72	5.12	3.36	3.04	2.76	4.24	2.18	6.20	0.94	1.84	4.67	0.40	0.28	0.36	0.32	0.30	0.00	0.00	0.00	0.00	0.00	0.00
Overall irrigation efficiency	66%																																							
1st rotation																																								
Land preparation, LP	(mm/day)	8.6	9.1	14.4	13.0																																			
Percolation, P×m	(mm/day)					3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0											
Crop coefficient, Kc						1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.00											
Consumptive use, ETo×Kc + Pxβ	(mm/day)					7.9	7.9	6.9	6.9	6.9	6.9	6.4	6.4	6.4	6.2	6.2	9.2	9.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.6	6.6	6.6	0.0	0.0	0.0											
FW=ETc + P - ER	(mm/day)					4.7	6.3	4.5	5.5	3.7	4.2	3.0	4.7	2.9	3.3	3.2	5.3	6.8	5.3	1.9	3.7	4.0	4.3	2.3	6.4	2.4	5.6	4.7	0.0	0.0	0.0											
Net field water req FW +LP	(mm/day)	8.6	9.1	14.4	13.0	4.7	6.3	4.5	5.5	3.7	4.2	3.0	4.7	2.9	3.3	3.2	5.3	6.8	5.3	1.9	3.7	4.0	4.3	2.3	6.4	2.4	5.6	4.7	0.0	0.0	0.0										
Unit irrigation water requirement	(mm/day)	13.0	13.8	21.8	19.7	7.1	9.5	6.8	8.3	5.5	6.4	4.5	7.2	4.5	5.0	4.9	8.1	10.3	8.1	2.9	5.6	6.1	6.5	3.5	9.7	3.6	8.5	7.2	0.0	0.0	0.0										
Unit irrigation water requirement	(l /sec/ha)	1.50	1.59	2.53	2.28	0.83	1.10	0.79	0.96	0.64	0.74	0.52	0.83	0.52	0.58	0.56	0.94	1.20	0.93	0.34	0.65	0.70	0.75	0.41	1.12	0.42	0.99	0.83	0.00	0.00	0.00										
2nd rotation																																								
Land preparation, LP	(mm/day)		8.0	11.7	11.4	15.4																																		
Percolation, P×m	(mm/day)						3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0										
Crop coefficient, Kc							1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.00										
Consumptive use, ETo×Kc + Pxβ	(mm/day)						7.9	7.9	6.9	6.9	6.9	6.4	6.4	6.4	6.4	6.2	6.2	9.0	9.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.6	6.6	6.6	0.0	0.0	0.0										
FW=ETc + P - ER	(mm/day)						6.3	5.5	5.5	3.7	4.2	3.0	4.7	2.9	3.5	3.2	2.3	6.8	7.3	1.9	3.7	4.0	4.3	2.7	4.4	2.4	7.6	4.7	1.9	0.0	0.0	0.0										
Net field water req FW +LP	(mm/day)		8.0	11.7	11.4	15.4	6.3	5.5	5.5	3.7	4.2	3.0	4.7	2.9	3.5	3.2	2.3	6.8	7.3	1.9	3.7	4.0	4.3	2.7	4.4	2.4	7.6	4.7	1.9	0.0	0.0	0.0										
Unit irrigation water requirement	(mm/day)		12.1	17.7	17.3	23.3	9.5	8.3	8.3	5.5	6.4	4.5	7.2	4.5	5.3	4.9	3.6	10.3	11.1	2.9	5.6	6.1	6.5	4.1	6.7	3.6	11.6	7.2	2.9	0.0	0.0	0.0										
Unit irrigation water requirement	(l /sec/ha)		1.40	2.05	2.01	2.70	1.10	0.96	0.96	0.64	0.74	0.52	0.83	0.52	0.61	0.56	0.41	1.20	1.28	0.34	0.65	0.70	0.75	0.48	0.77	0.42	1.34	0.83	0.34	0.00	0.00	0.00										
3rd rotation																																								
Land preparation, LP	(mm/day)			9.0	9.9	13.2	17.3																																	
Percolation, P×m	(mm/day)							3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	0.0	0.0	0.0	0.0							
Crop coefficient, Kc								1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.00	0.00						
Consumptive use, ETo×Kc + Pxβ	(mm/day)							7.9	7.9	6.9	6.9	6.4	6.4	6.4	6.4	6.4	6.2	6.0	9.0	9.0	7.0	7.0	7.0	7.0	7.0	7.0	8.6	8.6	8.6	6.4	0.0	0.0	0.0							
FW=ETc + P - ER	(mm/day)							5.5	6.5	3.7	4.2	3.0	4.7	2.9	3.5	3.4	2.3	3.8	7.3	3.9	3.7	4.0	4.3	2.7	4.8	0.4	7.6	6.7	1.9	6.0	0.0	0.0	0.0							
Net field water req FW +LP	(mm/day)			9.0	9.9	13.2	17.3	5.5	6.5	3.7	4.2	3.0	4.7	2.9	3.5	3.4	2.3	3.8	7.3	3.9	3.7	4.0	4.3	2.7	4.8	0.4	7.6	6.7	1.9	6.0	0.0	0.0	0.0							
Unit irrigation water requirement	(mm/day)			13.6	15.0	19.9	26.2	8.3	9.8	5.5	6.4	4.5	7.2	4.5	5.3	5.2	3.6	5.8	11.1	5.9	5.6	6.1	6.5	4.1	7.2	0.6	11.6	10.2	2.9	9.1	0.0	0.0	0.0							
Unit irrigation water requirement	(l /sec/ha)			1.57	1.73	2.31	3.03	0.96	1.14	0.64	0.74	0.52	0.83	0.52	0.61	0.60	0.41	0.67	1.28	0.69	0.65	0.70	0.75	0.48	0.84	0.07	1.34	1.18	0.34	1.05	0.00	0.00	0.00							
4th rotation																																								
Land preparation, LP	(mm/day)				8.3	10.9	14.5	16.3																																	
Percolation, P×m	(mm/day)								3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0						
Crop coefficient, Kc									1.10	1.10	1.10	1.10	1.1	1.1	1.1	1.1	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.95	0.00	0.00	0.00						
Consumptive use, ETo×Kc + Pxβ	(mm/day)								7.9	7.9	6.9	6.4	6.4	6.4	6.4	6.4	6.4	6.0	6.0	9.0	9.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.6	6.4	6.4	0.0	0.0	0.0						
FW=ETc + P - ER	(mm/day)								6.5	4.7	4.2	3.0	4.7	2.9	3.5	3.4	2.5	3.8	4.3	3.9	5.7	4.0	4.3	2.7	4.8	0.8	5.6	6.7	3.9	6.0	6.1	0.0	0.0	0.0						
Net field water req FW +LP	(mm/day)				8.3	10.9	14.5	16.3	6.5	4.7	4.2	3.0	4.7	2.9	3.5	3.4	2.5	3.8	4.3	3.9	5.7	4.0	4.3	2.7	4.8	0.8	5.6	6.7	3.9	6.0	6.1	0.0	0.0	0.0						
Unit irrigation water requirement	(mm/day)				12.6	16.6	22.0	24.8	9.8	7.1	6.4	4.5	7.2	4.5	5.3	5.2	3.9	5.8	6.5	5.9	8.6	6.1	6.5	4.1	7.2	1.1	8.5	10.2	5.9	9.1	9.3	0.0	0.0	0.0						
Unit irrigation water requirement	(l /sec/ha)				1.45	1.92	2.55	2.87	1.14	0.82	0.74	0.52	0.83	0.52	0.61	0.60	0.45	0.67	0.76	0.69	1.00	0.70	0.75	0.48	0.84	0.13	0.99	1.18	0.69	1.05	1.08	0.00	0.00	0.00						
5th rotation																																								
Land preparation, LP	(mm/day)					8.7	11.8	13.8	17.5																																
Percolation, P×m	(mm/day)									3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0						
Crop coefficient, Kc										1.10	1.10	1.10	1.10	1.1	1.1	1.1	1.1	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00	0.00	0.00						
Consumptive use, ETo×Kc + Pxβ	(mm/day)									7.9	7.9	6.4	6.4	6.4	6.4	6.4	6.4	6.2	6.0	6.0	9.0	9.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.4	6.4	6.4	0.0	0.0	0.0						
FW=ETc + P - ER	(mm/day)									4.7	5.2	3.0	4.7	2.9	3.5	3.4	2.5	4.0	4.3	0.9	5.7	6.0	4.3	2.7	4.8	0.8	6.0	4.7	3.9	8.0	6.1	6.1	0.0	0.0	0.0						
Net field water req FW +LP	(mm/day)					8.7	11.8	13.8	17.5	4.7	5.2	3.0	4.7	2.9	3.5	3.4	2.5	4.0	4.3	0.9	5.7	6.0	4.3	2.7	4.8	0.8	6.0	4.7	3.9	8.0	6.1	6.1	0.0	0.0	0.0						
Unit irrigation water requirement	(mm/day)					13.2	17.8	21.0	26.6	7.1	7.9	4.5	7.2	4.5	5.3	5.2	3.9	6.1	6.5	1.4	8.6	9.1	6.5	4.1	7.2	1.1	9.1	7.2	5.9	12.1	9.3	9.2	0.0	0.0	0.0						
Unit irrigation water requirement	(l /sec/ha)					1.52	2.06	2.43	3.08	0.82	0.91	0.52	0.83	0.52	0.61	0.60	0.45	0.70	0.76	0.16	1.00	1.05	0.75	0.48	0.84	0.13	1.06	0.83	0.69	1.41	1.08	1.06	0.00	0.00	0.00						
6th rotation																																								
Land preparation, LP	(mm/day)						9.0	11.3	14.7	15.3																															
Percolation, P×m	(mm/day)										3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0					
Crop coefficient, Kc											1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.95	0.00	0.00	0.00	0.00					
Consumptive use, ETo×Kc + Pxβ	(mm/day)										7.9	7.4	6.4	6.4	6.4	6.4	6.4	6.2	6.2	6.0	6.0	9.0	9.0	7.0	7.0	7.0	7.0	7.0	6.6	8.4	8.4	6.4	6.4	0.0	0.0	0.0					
FW=ETc + P - ER	(mm/day)										5.2	4.0	4.7	2.9	3.5	3.4	2.5	4.0	4.5	0.9	2.7	6.0	6.3	2.7	4.8	0.8	8.0	5.1	1.9	8.0	8.1	6.1	6.1	0.0	0.0	0.0					
Net field water req FW +LP	(mm/day)						9.0	11.3	14.7	15.3	5.2	4.0	4.7	2.9	3.5	3.4	2.5	4.0	4.5	0.9	2.7	6.0	6.3	2.7	4.8	0.8	8.0	5.1	1.9	8.0	8.1	6.1	6.1	0.0	0.0	0.0					
Unit irrigation water requirement	(mm/day)						13.6	17.2	22.3	23.2	7.9	6.0	7.2	4.5	5.3	5.2	3.9	6.1	6.8	1.4	4.1	9.1	9.5	4.1	7.2	1.1	9.1	7.8	2.9	12.1	12.3	9.2	9.2	0.0	0.0	0.0					
Unit irrigation water requirement	(l /sec/ha)						1.58	1.99	2.58	2.69	0.91	0.69	0.83	0.52	0.61	0.60	0.45	0.70	0.79	0.16	0.47	1.05	1.10	0.48	0.84	0.13	1.06	0.90	0.34	1.41	1.43	1.06	1.07	0.00	0.00	0.00					
7th rotation																																								
Land preparation, LP	(mm/day)							8.8	11.9	13.1	16.0																														
Percolation, P×m	(mm/day)											3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0			
Crop coefficient, Kc												1.10	1.1	1.1	1.1	1.1	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.00			
Consumptive use, ETo×Kc + Pxβ	(mm/day)											7.4	7.4	6.4	6.4	6.4	6.4	6.2	6.2	6.2	6.0	6.0	9.0	9.0	7.0	7.0	7.0	7.0	7.0	6.4	8.4	8.4	6.4	6.4	0.0	0.0	0.0			
FW=ETc + P - ER	(mm/day)											4.0	5.7	2.9	3.5	3.4	2.5	4.0	4.5	1.1	2.7	3.0	6.3	4.7	4.8	0.8	6.0	5.1	2.3	6.0	8.1	8.1	6.1	6.1	0.0	0.0	0.0			
Net field water req FW +LP	(mm/day)							8.8	11.9	13.1	16.0	4.0	5.7	2.9	3.5	3.4	2.5	4.0	4.5	1.1	2.7	3.0	6.3	4.7	4.8	0.8	6.0	5.1	2.3	6.0	8.1	8.1	6.1	6.1	0.0	0.0	0.0			
Unit irrigation water requirement	(mm/day)							13.4	18.0	19.9	24.2	6.0	8.7	4.5	5.3	5.2	3.9	6.1	6.8	1.7	4.1	4.5	9.5	7.1	7.2	1.1	9.1	7.8	3.5	9.1	12.3	12.2	9.2	9.3	0.0	0.0	0.0			
Unit irrigation water requirement	(l /sec/ha)							1.55	2.08	2.30	2.80	0.69	1.01	0.52	0.61	0.60	0.45	0.70	0.79	0.19	0.47	0.53	1.10	0.83	0.84	0.13	1.06	0.90	0.40	1.05	1.43	1.41	1.07	1.07	0.00	0.00	0.00			

Table D2.3-3 Irrigation Water Requirement of Medium Paddy (Transplanting) (2/2)

8th rotation																																								
Land preparation, LP	(mm/day)								9.0	10.9	13.6	14.5																												
Percolation, P×m	(mm/day)												3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0		
Crop coefficient, Kc													1.10	1.1	1.1	1.1	1.1	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.00		
Consumptive use, ETοxKc + Pxβ	(mm/day)												7.4	7.4	6.4	6.4	6.4	6.2	6.2	6.2	6.2	6.0	6.0	9.0	9.0	7.0	7.0	7.0	7.0	6.8	6.4	8.4	8.4	6.4	6.4	0.0	0.0	0.0		
FW=ETc + P - ER	(mm/day)												5.7	3.9	3.5	3.4	2.5	4.0	4.5	1.1	2.9	3.0	3.3	4.7	6.8	0.8	6.0	5.1	2.3	6.4	6.1	8.1	8.1	6.1	6.4	0.0	0.0	0.0		
Net field water req FW +LP	(mm/day)								9.0	10.9	13.6	14.5	5.7	3.9	3.5	3.4	2.5	4.0	4.5	1.1	2.9	3.0	3.3	4.7	6.8	0.8	6.0	5.1	2.3	6.4	6.1	8.1	8.1	6.1	6.4	0.0	0.0	0.0		
Unit irrigation water requirement	(mm/day)								13.7	16.5	20.6	22.0	8.7	6.0	5.3	5.2	3.9	6.1	6.8	1.7	4.3	4.5	5.0	7.1	10.3	1.1	9.1	7.8	3.5	9.7	9.3	12.2	12.3	9.3	9.7	0.0	0.0	0.0		
Unit irrigation water requirement	(l /sec/ha)								1.59	1.91	2.38	2.55	1.01	0.69	0.61	0.60	0.45	0.70	0.79	0.19	0.50	0.53	0.57	0.83	1.19	0.13	1.06	0.90	0.40	1.12	1.08	1.41	1.42	1.07	1.12	0.00	0.00	0.00		
9th rotation																																								
Land preparation, LP	(mm/day)									8.7	11.2	12.5	16.7																											
Percolation, P×m	(mm/day)													3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0		
Crop coefficient, Kc														1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.96	0.96	0.00	0.00	0.00		
Consumptive use, ETοxKc + Pxβ	(mm/day)													7.4	7.4	6.4	6.4	6.2	6.2	6.2	6.2	6.2	6.0	6.0	9.0	9.0	7.0	7.0	7.0	6.8	6.8	8.4	8.4	6.4	6.4	0.0	0.0	0.0		
FW=ETc + P - ER	(mm/day)													3.9	4.5	3.4	2.5	4.0	4.5	1.1	2.9	3.2	3.3	1.7	6.8	2.8	6.0	5.1	2.3	6.4	6.5	8.1	8.1	6.1	6.4	0.0	0.0	0.0		
Net field water req FW +LP	(mm/day)									8.7	11.2	12.5	16.7	3.9	4.5	3.4	2.5	4.0	4.5	1.1	2.9	3.2	3.3	1.7	6.8	2.8	6.0	5.1	2.3	6.4	6.5	8.1	8.1	6.1	6.4	0.0	0.0	0.0		
Unit irrigation water requirement	(mm/day)									13.1	17.0	19.0	25.2	6.0	6.8	5.2	3.9	6.1	6.8	1.7	4.3	4.8	5.0	2.6	10.3	4.2	9.1	7.8	3.5	9.7	9.8	12.2	12.3	9.3	9.8	0.0	0.0	0.0		
Unit irrigation water requirement	(l /sec/ha)									1.52	1.96	2.20	2.92	0.69	0.79	0.60	0.45	0.70	0.79	0.19	0.50	0.56	0.57	0.30	1.19	0.48	1.06	0.90	0.40	1.12	1.14	1.41	1.42	1.08	1.13	0.00	0.00	0.00		
10th rotation																																								
Land preparation, LP	(mm/day)										8.8	10.6	14.1	14.5																										
Percolation, P×m	(mm/day)														3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	
Crop coefficient, Kc															1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.96	0.96	0.00	0.00	0.00	
Consumptive use, ETοxKc + Pxβ	(mm/day)														7.4	7.4	6.4	6.2	6.2	6.2	6.2	6.2	6.2	6.0	6.0	9.0	9.0	7.0	7.0	6.8	6.8	6.8	8.4	8.4	6.4	6.5	0.0	0.0	0.0	
FW=ETc + P - ER	(mm/day)														4.5	4.4	2.5	4.0	4.5	1.1	2.9	3.2	3.5	1.7	3.8	2.8	8.0	5.1	2.3	6.4	6.5	6.4	8.1	8.1	6.4	6.5	0.0	0.0	0.0	
Net field water req FW +LP	(mm/day)										8.8	10.6	14.1	14.5	4.5	4.4	2.5	4.0	4.5	1.1	2.9	3.2	3.5	1.7	3.8	2.8	8.0	5.1	2.3	6.4	6.5	6.4	8.1	8.1	6.4	6.5	0.0	0.0	0.0	
Unit irrigation water requirement	(mm/day)										13.3	16.0	21.3	22.0	6.8	6.7	3.9	6.1	6.8	1.7	4.3	4.8	5.3	2.6	5.7	4.2	12.1	7.8	3.5	9.7	9.8	9.7	12.3	12.3	9.8	9.8	0.0	0.0	0.0	
Unit irrigation water requirement	(l /sec/ha)										1.54	1.85	2.47	2.54	0.79	0.78	0.45	0.70	0.79	0.19	0.50	0.56	0.61	0.30	0.66	0.48	1.41	0.90	0.40	1.12	1.14	1.12	1.42	1.42	1.13	1.13	0.00	0.00	0.00	
11th rotation																																								
Land preparation, LP	(mm/day)											8.6	11.5	12.5	15.2																									
Percolation, P×m	(mm/day)															3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	
Crop coefficient, Kc																1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.96	0.96	0.00	0.00	0.00	
Consumptive use, ETοxKc + Pxβ	(mm/day)															7.4	7.4	6.2	6.2	6.2	6.2	6.2	6.2	6.1	6.0	6.0	9.0	7.0	7.0	6.8	6.8	6.8	8.4	8.4	6.4	6.5	0.0	0.0	0.0	
FW=ETc + P - ER	(mm/day)															4.4	3.5	4.0	4.5	1.1	2.9	3.2	3.5	1.9	3.8	0.0	8.0	5.1	2.3	6.4	6.5	6.4	8.1	8.1	6.4	6.5	0.0	0.0	0.0	
Net field water req FW +LP	(mm/day)											8.6	11.5	12.5	15.2	4.4	3.5	4.0	4.5	1.1	2.9	3.2	3.5	1.9	3.8	0.0	8.0	5.1	2.3	6.4	6.5	6.4	8.1	8.1	6.4	6.5	0.0	0.0	0.0	
Unit irrigation water requirement	(mm/day)											13.0	17.4	19.0	23.0	6.7	5.4	6.1	6.8	1.7	4.3	4.8	5.3	2.9	5.7	0.0	12.1	7.8	3.5	9.7	9.8	9.7	12.3	12.3	9.8	9.8	0.0	0.0	0.0	
Unit irrigation water requirement	(l /sec/ha)											1.50	2.02	2.20	2.66	0.78	0.62	0.70	0.79	0.19	0.50	0.56	0.61	0.33	0.66	0.00	1.41	0.90	0.40	1.12	1.14	1.12	1.42	1.42	1.13	1.13	0.00	0.00	0.00	
12th rotation																																								
Land preparation, LP	(mm/day)												8.9	10.5	13.0	15.1																								
Percolation, P×m	(mm/day)																3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0
Crop coefficient, Kc																	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.96	0.96	0.00	0.00	0.00
Consumptive use, ETοxKc + Pxβ	(mm/day)																7.4	7.2	6.2	6.2	6.2	6.2	6.2	6.1	6.1	6.0	6.0	9.0	7.0	6.8	6.8	6.8	6.8	8.4	8.4	6.5	6.5	0.0	0.0	0.0
FW=ETc + P - ER	(mm/day)																3.5	5.0	4.5	1.1	2.9	3.2	3.5	1.9	4.0	0.0	5.0	7.1	2.3	6.4	6.5	6.4	6.5	8.1	8.4	6.5	6.5	0.0	0.0	0.0
Net field water req FW +LP	(mm/day)												8.9	10.5	13.0	15.1	3.5	5.0	4.5	1.1	2.9	3.2	3.5	1.9	4.0	0.0	5.0	7.1	2.3	6.4	6.5	6.4	6.5	8.1	8.4	6.5	6.5	0.0	0.0	0.0
Unit irrigation water requirement	(mm/day)												13.5	16.0	19.7	22.8	5.4	7.6	6.8	1.7	4.3	4.8	5.3	2.9	6.0	0.0	7.6	10.8	3.5	9.7	9.8	9.7	9.8	12.3	12.7	9.8	9.8	0.0	0.0	0.0
Unit irrigation water requirement	(l /sec/ha)												1.56	1.85	2.28	2.64	0.62	0.88	0.79	0.19	0.50	0.56	0.61	0.33	0.70	0.00	0.88	1.25	0.40	1.12	1.14	1.12	1.13	1.42	1.48	1.13	1.13	0.00	0.00	0.00

Summary table of unit irrigation water requirement

		Jun				Jul						Aug						Sep						Oct						Nov						Dec					Total
		11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	(mm)
1st rotation	(l /sec/ha)	1.50	1.59	2.53	2.28	0.83	1.10	0.79	0.96	0.64	0.74	0.52	0.83	0.52	0.58	0.56	0.94	1.20	0.93	0.34	0.65	0.70	0.75	0.41	1.12	0.42	0.99	0.83	0.00	0.00	0.00										1,091
2nd rotation	(l /sec/ha)		1.40	2.05	2.01	2.70	1.10	0.96	0.96	0.64	0.74	0.52	0.83	0.52	0.61	0.56	0.41	1.20	1.28	0.34	0.65	0.70	0.75	0.48	0.77	0.42	1.34	0.83	0.34	0.00	0.00	0.00									1,085
3rd rotation	(l /sec/ha)			1.57	1.73	2.31	3.03	0.96	1.14	0.64	0.74	0.52	0.83	0.52	0.61	0.60	0.41	0.67	1.28	0.69	0.65	0.70	0.75	0.48	0.84	0.07	1.34	1.18	0.34	1.05	0.00	0.00	0.00								1,108
4th rotation	(l /sec/ha)				1.45	1.92	2.55	2.87	1.14	0.82	0.74	0.52	0.83	0.52	0.61	0.60	0.45	0.67	0.76	0.69	1.00	0.70	0.75	0.48	0.84	0.13	0.99	1.18	0.69	1.05	1.08	0.00	0.00	0.00							1,123
5th rotation	(l /sec/ha)					1.52	2.06	2.43	3.08	0.82	0.91	0.52	0.83	0.52	0.61	0.60	0.45	0.70	0.76	0.16	1.00	1.05	0.75	0.48	0.84	0.13	1.06	0.83	0.69	1.41	1.08	1.06	0.00	0.00	0.00						1,137
6th rotation	(l /sec/ha)						1.58	1.99	2.58	2.69	0.91	0.69	0.83	0.52	0.61	0.60	0.45	0.70	0.79	0.16	0.47	1.05	1.10	0.48	0.84	0.13	1.06	0.90	0.34	1.41	1.43	1.06	1.07	0.00	0.00	0.00					1,142
7th rotation	(l /sec/ha)							1.55	2.08	2.30	2.80	0.69	1.01	0.52	0.61	0.60	0.45	0.70	0.79	0.19	0.47	0.53	1.10	0.83	0.84	0.13	1.06	0.90	0.40	1.05	1.43	1.41	1.07	1.07	0.00	0.00	0.00				1,149
8th rotation	(l /sec/ha)								1.59	1.91	2.38	2.55	1.01	0.69	0.61	0.60	0.45	0.70	0.79	0.19	0.50	0.53	0.57	0.83	1.19	0.13	1.06	0.90	0.40	1.12	1.08	1.41	1.42	1.07	1.12	0.00	0.00	0.00			1,158
9th rotation	(l /sec/ha)									1.52	1.96	2.20	2.92	0.69	0.79	0.60	0.45	0.70	0.79	0.19	0.50	0.56	0.57	0.30	1.19	0.48	1.06	0.90	0.40	1.12	1.14	1.41	1.42	1.08	1.13	0.00	0.00	0.00			1,127
10th rotation	(l /sec/ha)										1.54	1.85	2.47	2.54	0.79	0.78	0.45	0.70	0.79	0.19	0.50	0.56	0.61	0.30	0.66	0.48	1.41	0.90	0.40	1.12	1.14	1.12	1.42	1.42	1.13	1.13	0.00	0.00	0.00		1,141
11th rotation	(l /sec/ha)											1.50	2.02	2.20	2.66	0.78	0.62	0.70	0.79	0.19	0.50	0.56	0.61	0.33	0.66	0.00	1.41	0.90	0.40	1.12	1.14	1.12	1.42	1.42	1.13	1.13	0.00	0.00	0.00		1,094
12th rotation	(l /sec/ha)												1.56	1.85	2.28	2.64	0.62	0.88	0.79	0.19	0.50	0.56	0.61	0.33	0.70	0.00	0.88	1.25	0.40	1.12	1.14	1.12	1.13	1.42	1.48	1.13	1.13	0.00	0.00	0.00	1,112
Avergae	(l /sec/ha)	0.13	0.25	0.51	0.62	0.77	0.95	0.96	1.13	1.00	1.12	1.01	1.33	0.97	0.95	0.79	0.51	0.79	0.88	0.29	0.62	0.68	0.74	0.48	0.87	0.21	1.14	0.96	0.40	0.96	0.89	0.81	0.75	0.62	0.50	0.28	0.09	0.00	0.00	0.00	1,122

Table 2.3-4 Irrigation Water Requirement of Medium Paddy (Direct sowing) (1/2)

Item	May			Jun						Jul						Aug						Sep						Oct						Nov						Dec			
	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20
ETo at Battambang (mm/day)	4.85	4.85	4.85	4.35	4.35	4.35	4.35	4.35	4.35	4.43	4.43	4.43	4.43	4.43	4.43	3.98	3.98	3.98	3.98	3.98	3.98	3.85	3.85	3.85	3.85	3.85	3.85	3.77	3.77	3.77	3.77	3.77	3.77	3.59	3.59	3.59	3.59	3.59	3.59	3.61	3.61	3.61	3.61
Percolation (mm/day)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
After transplanting, β	-	1.0	1.0																																								
In vegetation, β				0.4	0.4	0.4																																					
In reproductive, β							1.0	1.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.0	1.0																	
In maturing, β																												0.6	0.6	-	-	-												
Effective Rain, ER (mm/day)	3.28	0.92	1.33	1.68	3.32	3.62	6.54	1.64	5.06	3.16	1.60	2.38	1.38	3.22	2.67	3.42	1.64	3.44	2.88	2.96	3.83	2.22	1.72	5.12	3.36	3.04	2.76	4.24	2.18	6.20	0.94	1.84	4.67	0.40	0.28	0.36	0.32	0.30	0.00	0.00	0.00	0.00	0.00
Overall Irrigation efficiency 66%																																											
1st block																																											
Land preparation, LP (mm/day)	2.0																																										
Percolation, P×m (mm/day)	0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0								
Crop coefficient, Kc	0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.96	0.95	0.95	0.95	0.95	0.00	0.00	0.00								
Consumptive use, ETo×Kc + P (mm/day)	3.4	3.4	4.9	4.8	9.8	9.8	6.8	6.8	6.8	9.7	9.7	7.7	7.7	7.7	7.7	7.2	7.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.6	6.6	6.6	0.0	0.0	0.0								
FW=ETc + P - ER (mm/day)	0.1	2.5	3.5	3.1	6.5	6.2	0.2	5.1	1.7	6.5	8.1	5.3	6.3	4.4	5.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.4	6.4	2.4	5.6	4.7	0.0	0.0	0.0								
Net field water req FW +LP (mm/day)	2.1	2.5	3.5	3.1	6.5	6.2	0.2	5.1	1.7	6.5	8.1	5.3	6.3	4.4	5.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.4	6.4	2.4	5.6	4.7	0.0	0.0	0.0								
Unit diversion water requireme (mm/day)	3.2	3.8	5.3	4.7	9.8	9.3	0.4	7.8	2.6	9.8	12.2	8.0	9.5	6.7	7.6	5.7	8.4	5.7	6.5	6.4	5.1	7.3	8.1	2.9	5.6	6.1	6.5	3.6	9.7	3.6	8.5	7.2	0.0	0.0	0.0								
Unit diversion water requireme (l/sec/ha)	0.37	0.43	0.62	0.55	1.13	1.08	0.04	0.90	0.30	1.14	1.41	0.93	1.10	0.78	0.88	0.66	0.97	0.66	0.75	0.74	0.59	0.84	0.93	0.34	0.65	0.70	0.75	0.42	1.12	0.42	0.99	0.83	0.00	0.00	0.00								
2nd block																																											
Land preparation, LP (mm/day)		2.0																																									
Percolation, P×m (mm/day)		0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0							
Crop coefficient, Kc		0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.96	0.95	0.95	0.95	0.95	0.00	0.00	0.00							
Consumptive use, ETo×Kc + P (mm/day)		3.4	3.4	4.4	4.8	9.8	9.8	6.8	6.8	6.9	9.7	9.7	7.7	7.7	7.7	7.2	7.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.6	6.6	6.6	0.0	0.0	0.0							
FW=ETc + P - ER (mm/day)		2.5	2.1	2.7	1.5	6.2	3.2	5.1	1.7	3.7	8.1	7.3	6.3	4.4	5.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.4	2.4	7.6	4.7	1.9	0.0	0.0	0.0							
Net field water req FW +LP (mm/day)		4.5	2.1	2.7	1.5	6.2	3.2	5.1	1.7	3.7	8.1	7.3	6.3	4.4	5.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.4	2.4	7.6	4.7	1.9	0.0	0.0	0.0							
Unit diversion water requireme (mm/day)		6.8	3.1	4.0	2.2	9.3	4.9	7.8	2.6	5.6	12.2	11.0	9.5	6.7	7.6	5.7	8.4	5.7	6.5	6.4	5.1	7.3	8.1	2.9	5.6	6.1	6.5	4.1	6.7	3.6	11.6	7.2	2.9	0.0	0.0	0.0							
Unit diversion water requireme (l/sec/ha)		0.79	0.36	0.47	0.26	1.08	0.57	0.90	0.30	0.65	1.41	1.28	1.10	0.78	0.88	0.66	0.97	0.66	0.75	0.74	0.59	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.78	0.42	1.34	0.83	0.34	0.00	0.00	0.00							
3rd block																																											
Land preparation, LP (mm/day)			2.0																																								
Percolation, P×m (mm/day)			0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0						
Crop coefficient, Kc			0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.96	0.95	0.95	0.95	0.95	0.00	0.00	0.00						
Consumptive use, ETo×Kc + P (mm/day)			3.4	3.0	4.4	4.8	9.8	9.8	6.8	6.9	6.9	9.7	9.7	7.7	7.7	7.2	7.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.6	6.6	6.4	0.0	0.0	0.0						
FW=ETc + P - ER (mm/day)			2.1	1.4	1.0	1.2	3.2	8.1	1.7	3.7	5.3	7.3	8.3	4.4	5.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.4	7.6	6.7	1.9	6.0	0.0	0.0	0.0						
Net field water req FW +LP (mm/day)			4.1	1.4	1.0	1.2	3.2	8.1	1.7	3.7	5.3	7.3	8.3	4.4	5.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.4	7.6	6.7	1.9	6.0	0.0	0.0	0.0						
Unit diversion water requireme (mm/day)			6.2	2.1	1.6	1.8	4.9	12.3	2.6	5.6	8.0	11.0	12.5	6.7	7.6	5.7	8.4	5.7	6.5	6.4	5.1	7.3	8.1	2.9	5.6	6.1	6.5	4.1	7.2	0.6	11.6	10.2	2.9	9.1	0.0	0.0	0.0						
Unit diversion water requireme (l/sec/ha)			0.71	0.24	0.18	0.20	0.57	1.43	0.30	0.65	0.93	1.28	1.45	0.78	0.88	0.66	0.97	0.66	0.75	0.74	0.59	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.07	1.34	1.18	0.34	1.05	0.00	0.00	0.00						
4th block																																											
Land preparation, LP (mm/day)				2.0																																						
Percolation, P×m (mm/day)				0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0					
Crop coefficient, Kc				0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.1	1.1	1.1	1.1	1.0	1.0	1.0	0.0	0.0	0.0			
Consumptive use, ETo×Kc + P (mm/day)				3.0	3.0	4.4	4.8	9.8	9.8	6.9	6.9	6.9	9.7	9.7	7.7	7.2	7.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.6	6.4	6.4	0.0	0.0	0.0				
FW=ETc + P - ER (mm/day)				1.4	0.0	0.7	0.0	8.1	4.7	3.7	5.3	4.5	8.3	6.4	5.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	5.7	6.7	3.9	6.0	6.1	0.0	0.0	0.0				
Net field water req FW +LP (mm/day)				3.4	0.0	0.7	0.0	8.1	4.7	3.7	5.3	4.5	8.3	6.4	5.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	5.7	6.7	3.9	6.0	6.1	0.0	0.0	0.0				
Unit diversion water requireme (mm/day)				5.1	0.0	1.1	0.0	12.3	7.2	5.6	8.0	6.8	12.5	9.8	7.6	5.7	8.4	5.7	6.5	6.4	5.1	7.3	8.1	2.9	5.6	6.1	6.5	4.1	7.2	1.1	8.6	10.2	5.9	9.1	9.3	0.0	0.0	0.0				
Unit diversion water requireme (l/sec/ha)				0.59	0.00	0.13	0.00	1.43	0.83	0.65	0.93	0.79	1.45	1.13	0.88	0.66	0.97	0.66	0.75	0.74	0.59	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.00	1.18	0.69	1.05	1.08	0.00	0.00	0.00				
5th block																																											
Land preparation, LP (mm/day)					2.0																																					
Percolation, P×m (mm/day)					0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0				
Crop coefficient, Kc					0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.1	1.1	1.1	1.1	1.0	1.0	1.0	0.0	0.0	0.0				
Consumptive use, ETo×Kc + P (mm/day)					3.0	3.0	4.4	4.8	9.8	9.9	6.9	6.9	6.9	9.7	9.7	7.2	7.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.6	8.6	8.4	6.4	6.4	0.0	0.0	0.0				
FW=ETc + P - ER (mm/day)					0.0	0.0	0.0	3.1	4.7	6.7	5.3	4.5	5.5	6.4	7.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	4.8	3.9	8.0	6.1	6.1	0.0	0.0	0.0				
Net field water req FW +LP (mm/day)					2.0	0.0	0.0	3.1	4.7	6.7	5.3	4.5	5.5	6.4	7.0	3.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	4.8	3.9	8.0	6.1	6.1	0.0	0.0	0.0				
Unit diversion water requireme (mm/day)					3.0	0.0	0.0	4.8	7.2	10.2	8.0	6.8	8.3	9.8	10.6	5.7	8.4	5.7	6.5	6.4	5.1	7.3	8.1	2.9	5.6	6.1	6.5	4.1	7.2	1.1	9.1	7.2	5.9	12.1	9.3	9.2	0.0	0.0	0.0				
Unit diversion water requireme (l/sec/ha)					0.35	0.00	0.00	0.55	0.83	1.18	0.93	0.79	0.96	1.13	1.23	0.66	0.97	0.66	0.75	0.74	0.59	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.84	0.69	1.41	1.08	1.06	0.00	0.00	0.00				
6th block																																											
Land preparation, LP (mm/day)						2.0																																				
Percolation, P×m (mm/day)						0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0			
Crop coefficient, Kc						0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.98	0.95	0.95	0.95	0.95	0.00	0.00	0.00
Consumptive use, ETo×Kc + P (mm/day)						3.0	3.0	4.4	4.8	9.9	9.9	6.9	6.9	6.9	9.7	9.2	7.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.6	8.4	8.4	6.4	6.4	0.0	0.0	0.0			
FW=ETc + P - ER (mm/day)						0.0	0.0	2.7	0.0	6.7	8.3	4.5	5.5	3.7	7.0	5.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	5.1	2.0	8.0	8.1	6.1	6.1	0.0	0.0	0.0			
Net field water req FW +LP (mm/day)						2.0	0.0	2.7	0.0	6.7	8.3	4.5	5.5	3.7	7.0	5.8	5.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	5.1	2.0	8.0	8.1	6.1	6.1	0.0	0.0	0.0			
Unit diversion water requireme (mm/day)						3.0	0.0	4.1	0.0	10.2	12.5	6.8	8.3	5.5	10.6	8.7	8.4	5.7	6.5	6.4	5.1	7.3	8.1	2.9	5.6	6.1	6.5	4.1	7.2	1.1	9.1	7.8	3.0	12.1	12.3	9.2	9.2	0.0	0.0	0.0			
Unit diversion water requireme (l/sec/ha)						0.35	0.00	0.48	0.00	1.18	1.45	0.79	0.96	0.64	1.23	1.01	0.97	0.66	0.75	0.74	0.59	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.90	0.34	1.41	1.43	1.06	1.07	0.00	0.00	0.00			
7th block																																											
Land preparation, LP (mm/day)							2.0																																			
Percolation, P×m (mm/day)							0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	
Crop coefficient, Kc							0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.96	0.95	0.95	0.95	0.95	0.00	0.00	0.00	
Consumptive use, ETo×Kc + P (mm/day)							3.0	3.0	4.4	4.9	9.9	9.9	6.9	6.9	6.9	9.2	9.2	7.2	7.2	7.2	7.2	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.4	8.4	8.4	6.4	6.4	0.0	0.0	0.0	
FW=ETc + P - ER (mm/day)							0.0	1.4	0.0	1.7	8.3	7.5	5.5	3.7	4.2	5.8	7.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	5.1	2.3	6.0	8.1	8.1	6.1	6.1	0.0	0.0	0.0	
Net field water req FW +LP (mm/day)							2.0	1.4	0.0	1.7	8.3	7.5	5.5	3.7	4.2	5.8	7.5	3.7	4.3	4.2	3.3	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	5.1	2.3	6.0	8.1	8.1	6.1	6.1	0.0	0.0	0.0	
Unit diversion water requireme (mm/day)							3.0	2.1	0.0	2.6	12.5	11.4	8.3	5.5	6.4	8.7	11.4	5.7	6.5	6.4	5.1	7.3	8.1	2.9	5.6	6.1	6.5	4.1	7.2	1.1	9.1	7.8	3.5	9.2	12.3	12.2	9.2	9.3	0.0	0.0	0.0	
Unit diversion water requireme (l/sec/ha)							0.35	0.25	0.00	0.30	1.45	1.31	0.96	0.64	0.74	1.01	1.32	0.66	0.75	0.74	0.59	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.90	0.40	1.06	1.43	1.41	1.07	1.07	0.00	0.00	0.00	

Table 2.3-4 Irrigation Water Requirement of Medium Paddy (Direct sowing) (2/2)

8th block																					
Land preparation, LP (mm/day)									2.0												
Percolation, P×m (mm/day)									0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0
Crop coefficient, Kc									0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05
Consumptive use, EToxKc + P (mm/day)									3.0	3.0	4.4	4.9	9.9	9.9	6.9	6.9	6.4	9.2	9.2	7.2	7.2	7.2
FW=ETc + P - ER (mm/day)									1.4	0.0	1.3	3.3	7.5	8.5	3.7	4.2	3.0	7.5	5.7	4.3	4.2	3.3
Net field water req FW +LP (mm/day)									3.4	0.0	1.3	3.3	7.5	8.5	3.7	4.2	3.0	7.5	5.7	4.3	4.2	3.3
Unit diversion water requireme (mm/day)									5.2	0.0	1.9	5.0	11.4	12.9	5.5	6.4	4.5	11.4	8.7	6.5	6.4	5.1
Unit diversion water requireme (l /sec/ha)									0.60	0.00	0.22	0.57	1.31	1.49	0.64	0.74	0.52	1.32	1.01	0.75	0.74	0.59
9th block																					
Land preparation, LP (mm/day)										2.0											
Percolation, P×m (mm/day)										0.0	0.0	0.0	0.0	5.0	5.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0
Crop coefficient, Kc										0.70	0.70	1.00	1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05
Consumptive use, EToxKc + P (mm/day)										3.0	3.1	4.4	4.9	9.9	9.9	6.9	6.4	6.4	9.2	9.2	7.2	7.2
FW=ETc + P - ER (mm/day)										0.0	0.0	2.8	2.5	8.5	6.7	4.2	3.0	4.7	5.7	6.3	4.2	3.3
Net field water req FW +LP (mm/day)										2.0	0.0	2.8	2.5	8.5	6.7	4.2	3.0	4.7	5.7	6.3	4.2	3.3
Unit diversion water requireme (mm/day)										3.0	0.0	4.3	3.8	12.9	10.1	6.4	4.5	7.2	8.7	9.5	6.4	5.1
Unit diversion water requireme (l /sec/ha)										0.35	0.00	0.50	0.44	1.49	1.17	0.74	0.52	0.83	1.01	1.11	0.74	0.59

8th block																						
Land preparation, LP (mm/day)																						
Percolation, P×m (mm/day)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	
Crop coefficient, Kc	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.96	0.95	0.95	0.95	0.95	0.00	0.00	0.00	
Consumptive use, EToxKc + P (mm/day)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.4	8.4	8.4	6.4	6.4	0.0	0.0	0.0	
FW=ETc + P - ER (mm/day)	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	5.1	2.3	6.4	6.2	8.1	8.1	6.1	6.4	0.0	0.0	0.0	
Net field water req FW +LP (mm/day)	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	5.1	2.3	6.4	6.2	8.1	8.1	6.1	6.4	0.0	0.0	0.0	
Unit diversion water requireme (mm/day)	7.3	8.1	2.9	5.6	6.1	6.5	4.1	7.2	1.1	9.1	7.8	3.5	9.7	9.3	12.2	12.3	9.3	9.7	0.0	0.0	0.0	
Unit diversion water requireme (l /sec/ha)	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.90	0.40	1.12	1.08	1.41	1.42	1.07	1.12	0.00	0.00	0.00	
9th block																						
Land preparation, LP (mm/day)																						
Percolation, P×m (mm/day)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0
Crop coefficient, Kc	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.96	0.95	0.95	0.95	0.95	0.00	0.00	0.00
Consumptive use, EToxKc + P (mm/day)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.8	6.4	8.4	8.4	6.4	6.4	0.0	0.0	0.0
FW=ETc + P - ER (mm/day)	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	5.1	2.3	6.4	6.5	6.1	8.1	8.1	6.4	6.4	0.0	0.0	0.0
Net field water req FW +LP (mm/day)	4.8	5.3	1.9	3.7	4.0	4.3	2.7	4.8	0.8	6.0	5.1	2.3	6.4	6.5	6.1	8.1	8.1	6.4	6.4	0.0	0.0	0.0
Unit diversion water requireme (mm/day)	7.3	8.1	2.9	5.6	6.1	6.5	4.1	7.2	1.1	9.1	7.8	3.5	9.7	9.8	9.2	12.3	12.3	9.7	9.7	0.0	0.0	0.0
Unit diversion water requireme (l /sec/ha)	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.90	0.40	1.12	1.14	1.07	1.42	1.42	1.12	1.13	0.00	0.00	0.00

Summary table of unit diversion water requirement

		May			Jun						Jul						Aug					
		16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-31
1st block	(l /sec/ha)	0.37	0.43	0.62	0.55	1.13	1.08	0.04	0.90	0.30	1.14	1.41	0.93	1.10	0.78	0.88	0.66	0.97	0.66	0.75	0.74	0.59
2nd block	(l /sec/ha)		0.79	0.36	0.47	0.26	1.08	0.57	0.90	0.30	0.65	1.41	1.28	1.10	0.78	0.88	0.66	0.97	0.66	0.75	0.74	0.59
3rd block	(l /sec/ha)			0.71	0.24	0.18	0.20	0.57	1.43	0.30	0.65	0.93	1.28	1.45	0.78	0.88	0.66	0.97	0.66	0.75	0.74	0.59
4th block	(l /sec/ha)				0.59	0.00	0.13	0.00	1.43	0.83	0.65	0.93	0.79	1.45	1.13	0.88	0.66	0.97	0.66	0.75	0.74	0.59
5th block	(l /sec/ha)					0.35	0.00	0.00	0.55	0.83	1.18	0.93	0.79	0.96	1.13	1.23	0.66	0.97	0.66	0.75	0.74	0.59
6th block	(l /sec/ha)						0.35	0.00	0.48	0.00	1.18	1.45	0.79	0.96	0.84	1.23	1.01	0.97	0.66	0.75	0.74	0.59
7th block	(l /sec/ha)							0.35	0.25	0.00	0.30	1.45	1.31	0.96	0.84	0.74	1.01	1.32	0.66	0.75	0.74	0.59
8th block	(l /sec/ha)								0.60	0.00	0.22	0.57	1.31	1.49	0.64	0.74	0.52	1.32	1.01	0.75	0.74	0.59
9th block	(l /sec/ha)									0.35	0.00	0.50	0.44	1.49	1.17	0.74	0.52	0.83	1.01	1.11	0.74	0.59
Average	(l /sec/ha)	0.04	0.14	0.19	0.20	0.21	0.32	0.17	0.73	0.32	0.66	1.06	0.99	1.22	0.85	0.91	0.71	1.03	0.73	0.79	0.74	0.59

	Sep						Oct						Nov						Dec				Total
	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	(mm)
1st block	0.84	0.93	0.34	0.65	0.70	0.75	0.42	1.12	0.42	0.99	0.83	0.00	0.00	0.00									1,038
2nd block	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.78	0.42	1.34	0.83	0.34	0.00	0.00	0.00								1,019
3rd block	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.07	1.34	1.18	0.34	1.05	0.00	0.00	0.00							1,014
4th block	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.00	1.18	0.69	1.05	1.08	0.00	0.00	0.00						1,029
5th block	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.84	0.69	1.41	1.08	1.06	0.00	0.00	0.00					1,041
6th block	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.90	0.34	1.41	1.43	1.06	1.07	0.00	0.00	0.00				1,067
7th block	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.90	0.40	1.06	1.43	1.41	1.07	1.07	0.00	0.00	0.00			1,086
8th block	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.90	0.40	1.12	1.08	1.41	1.42	1.07	1.12	0.00	0.00	0.00		1,112
9th block	0.84	0.93	0.34	0.65	0.70	0.75	0.48	0.84	0.13	1.06	0.90	0.40	1.12	1.14	1.07	1.42	1.42	1.12	1.13	0.00	0.00	0.00	1,119
Average	0.84	0.93	0.34	0.65	0.70	0.75	0.47	0.86	0.19	1.10	0.94	0.40	0.91	0.80	0.67	0.55	0.40	0.25	0.13	0.00	0.00	0.00	1,058

Table D2.3-5 Irrigation Water Requirement of Dry Season Paddy (Transplanting)

Item		Jan						Feb						Mar						Apr			Nov			Dec					
		1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-28	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31
ETo at Battambang	(mm/day)	3.94	3.94	3.94	3.94	3.94	3.94	4.46	4.46	4.46	4.46	4.46	4.46	5.16	5.16	5.16	5.16	5.16	5.16	5.10	5.10	5.10	3.59	3.59	3.59	3.61	3.61	3.61	3.61	3.61	3.61
Percolation	(mm/day)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
After transplanting, β																													0.6	0.6	
In vegetation, β		0.4	0.4																												0.4
In reproductive, β				1.0	1.0	0.6	0.6	0.6	0.6	1.0	1.0																				
In maturing, β												0.6	0.6	-	-	-															
Effective rainfall	(mm/day)	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	0.30	0.30	0.88	0.50	1.07	0.50	0.34	1.44	0.32	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Overall irrigation efficiency	66%																														
1st block																															
Land preparation, LP	(mm/day)																								9.2	12.2	15.2	18.2			
Percolation, P×m	(mm/day)	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	0.0													3.0	2.0	2.0
Crop coefficient, Kc		1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00													1.10	1.10	1.10
Consumptive use, ETo×Kc + Pxβ	(mm/day)	6.3	9.3	9.3	7.1	7.1	7.1	7.7	9.7	9.7	7.7	7.2	4.2	4.9	0.0	0.0													7.0	6.0	6.0
FW=ETc + P - ER	(mm/day)	6.3	9.3	9.3	7.1	7.1	7.1	7.7	9.7	9.7	7.7	7.2	4.2	4.9	0.0	0.0													7.0	6.0	6.0
Net field water req FW +LP	(mm/day)	6.3	9.3	9.3	7.1	7.1	7.1	7.7	9.7	9.7	7.7	7.2	4.2	4.9	0.0	0.0									9.2	12.2	15.2	18.2	7.0	6.0	6.0
Unit diversion water requirement	(mm/day)	9.6	14.1	14.1	10.8	10.8	10.8	11.6	14.7	14.7	11.6	11.0	6.4	7.4	0.0	0.0									13.9	18.5	23.0	27.5	10.6	9.0	9.0
Unit diversion water requirement	(l/sec/ha)	1.11	1.64	1.64	1.25	1.25	1.25	1.35	1.70	1.70	1.35	1.27	0.74	0.86	0.00	0.00									1.61	2.14	2.66	3.19	1.22	1.05	1.05
2nd block																															
Land preparation, LP	(mm/day)																									9.2	12.2	15.2	18.2		
Percolation, P×m	(mm/day)	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	0.0												3.0	2.0	
Crop coefficient, Kc		1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00												1.10	1.10	
Consumptive use, ETo×Kc + Pxβ	(mm/day)	6.3	6.3	9.3	9.3	7.1	7.1	7.7	7.7	9.7	9.7	7.7	7.2	4.9	4.9	0.0	0.0												7.0	6.0	
FW=ETc + P - ER	(mm/day)	6.3	6.3	9.3	9.3	7.1	7.1	7.7	7.7	9.7	9.7	7.7	7.2	4.9	4.6	0.0	0.0												7.0	6.0	
Net field water req FW +LP	(mm/day)	6.3	6.3	9.3	9.3	7.1	7.1	7.7	7.7	9.7	9.7	7.7	7.2	4.9	4.6	0.0	0.0									9.2	12.2	15.2	18.2	7.0	6.0
Unit diversion water requirement	(mm/day)	9.6	9.6	14.1	14.1	10.8	10.8	11.6	11.6	14.7	14.7	11.6	11.0	7.4	7.0	0.0	0.0									13.9	18.5	23.0	27.5	10.6	9.0
Unit diversion water requirement	(l/sec/ha)	1.11	1.11	1.64	1.64	1.25	1.25	1.35	1.35	1.70	1.70	1.35	1.27	0.86	0.81	0.00	0.00									1.61	2.14	2.66	3.19	1.22	1.05
3rd block																															
Land preparation, LP	(mm/day)																										9.2	12.2	15.2	18.2	
Percolation, P×m	(mm/day)	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	0.0													3.0
Crop coefficient, Kc		1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00													1.10
Consumptive use, ETo×Kc + Pxβ	(mm/day)	6.3	6.3	6.3	9.3	9.3	7.1	7.7	7.7	7.7	9.7	9.7	7.7	7.9	4.9	4.9	0.0	0.0													7.0
FW=ETc + P - ER	(mm/day)	6.3	6.3	6.3	9.3	9.3	7.1	7.7	7.7	7.7	9.7	9.7	7.7	7.9	4.6	4.6	0.0	0.0													7.0
Net field water req FW +LP	(mm/day)	6.3	6.3	6.3	9.3	9.3	7.1	7.7	7.7	7.7	9.7	9.7	7.7	7.9	4.6	4.6	0.0	0.0									9.2	12.2	15.2	18.2	7.0
Unit diversion water requirement	(mm/day)	9.6	9.6	9.6	14.1	14.1	10.8	11.6	11.6	11.6	14.7	14.7	11.6	12.0	7.0	7.0	0.0	0.0									13.9	18.5	23.0	27.5	10.6
Unit diversion water requirement	(l/sec/ha)	1.11	1.11	1.11	1.64	1.64	1.25	1.35	1.35	1.35	1.70	1.70	1.35	1.39	0.81	0.81	0.00	0.00									1.61	2.14	2.66	3.19	1.22
4th block																															
Land preparation, LP	(mm/day)																											9.2	12.2	15.2	18.2
Percolation, P×m	(mm/day)	3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	0.0												
Crop coefficient, Kc		1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00												
Consumptive use, ETo×Kc + Pxβ	(mm/day)	7.3	6.3	6.3	6.3	9.3	9.3	7.7	7.7	7.7	7.7	9.7	9.7	8.4	7.9	4.9	4.9	0.0	0.0												
FW=ETc + P - ER	(mm/day)	7.3	6.3	6.3	6.3	9.3	9.3	7.7	7.7	7.7	7.7	9.7	9.7	8.4	7.6	4.6	4.0	0.0	0.0												
Net field water req FW +LP	(mm/day)	7.3	6.3	6.3	6.3	9.3	9.3	7.7	7.7	7.7	7.7	9.7	9.7	8.4	7.6	4.6	4.0	0.0	0.0									9.2	12.2	15.2	18.2
Unit diversion water requirement	(mm/day)	11.1	9.6	9.6	9.6	14.1	14.1	11.6	11.6	11.6	11.6	14.7	14.7	12.8	11.5	7.0	6.1	0.0	0.0									13.9	18.5	23.0	27.5
Unit diversion water requirement	(l/sec/ha)	1.29	1.11	1.11	1.11	1.64	1.64	1.35	1.35	1.35	1.35	1.70	1.70	1.48	1.33	0.81	0.71	0.00	0.00									1.61	2.14	2.66	3.19
5th block																															
Land preparation, LP	(mm/day)	15.5																											9.2	12.2	15.2
Percolation, P×m	(mm/day)		3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	0.0											
Crop coefficient, Kc			1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00											
Consumptive use, ETo×Kc + Pxβ	(mm/day)		7.3	6.3	6.3	6.3	9.3	9.9	7.7	7.7	7.7	7.7	9.7	10.4	8.4	7.9	4.9	4.9	0.0	0.0											
FW=ETc + P - ER	(mm/day)		7.3	6.3	6.3	6.3	9.3	9.9	7.7	7.7	7.7	7.7	9.7	10.4	8.1	7.6	4.0	4.4	0.0	0.0											
Net field water req FW +LP	(mm/day)	15.5	7.3	6.3	6.3	6.3	9.3	9.9	7.7	7.7	7.7	7.7	9.7	10.4	8.1	7.6	4.0	4.4	0.0	0.0									9.2	12.2	15.2
Unit diversion water requirement	(mm/day)	23.4	11.1	9.6	9.6	9.6	14.1	15.0	11.6	11.6	11.6	11.6	14.7	15.8	12.3	11.5	6.1	6.7	0.0	0.0									13.9	18.5	23.0
Unit diversion water requirement	(l/sec/ha)	2.71	1.29	1.11	1.11	1.11	1.64	1.74	1.35	1.35	1.35	1.35	1.70	1.83	1.42	1.33	0.71	0.77	0.00	0.00									1.61	2.14	2.66
6th block																															
Land preparation, LP	(mm/day)	15.5	15.5																										9.2	12.2	
Percolation, P×m	(mm/day)			3.0	2.0	2.0	2.0	5.0	5.0	3.0	3.0	3.0	3.0	5.0	5.0	3.0	3.0	0.0	0.0	0.0	0.0										
Crop coefficient, Kc				1.10	1.10	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	0.95	0.95	0.95	0.00	0.00										
Consumptive use, ETo×Kc + Pxβ	(mm/day)			7.3	6.3	6.3	6.3	9.9	9.9	7.7	7.7	7.7	7.7	10.4	10.4	8.4	7.9	4.9	4.9	0.0	0.0										
FW=ETc + P - ER	(mm/day)			7.3	6.3	6.3	6.3	9.9	9.9	7.7	7.7	7.7	7.7	10.4	10.1	8.1	7.0	4.4	3.8	0.0	0.0										
Net field water req FW +LP	(mm/day)	15.5	15.5	7.3	6.3	6.3	6.3	9.9	9.9	7.7	7.7	7.7	7.7	10.4	10.1	8.1	7.0	4.4	3.8	0.0	0.0								9.2	12.2	
Unit diversion water requirement	(mm/day)	23.4	23.4	11.1	9.6	9.6	9.6	15.0	15.0	11.6	11.6	11.6	11.6	15.8	15.3	12.3	10.6	6.7	5.8	0.0	0.0								13.9	18.5	
Unit diversion water requirement	(l/sec/ha)	2.71	2.71	1.29	1.11	1.11	1.11	1.74	1.74	1.35	1.35	1.35	1.35	1.83	1.77	1.42	1.23	0.77	0.67	0.00	0.00								1.61	2.14	

Summary table of unit diversion water requirement

		Jan						Feb						Mar						Apr			Nov			Dec						Total
		1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-28	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-30	1-5	6-10	11-15	16-20	21-25	26-31	(mm)
1st block	(l/sec/ha)	1.11	1.64	1.64	1.25	1.25	1.25	1.35	1.70	1.70	1.35	1.27	0.74	0.86	0.00	0.00									1.61	2.14	2.66	3.19	1.22	1.05	1.05	1,297
2nd block	(l/sec/ha)	1.11	1.11	1.64	1.64	1.25	1.25	1.35	1.35	1.70	1.70	1.35	1.27	0.86	0.81	0.00	0.00									1.61	2.14	2.66	3.19	1.22	1.05	1,306
3rd block	(l/sec/ha)	1.11	1.11	1.11	1.64	1.64	1.25	1.35	1.35	1.35	1.70	1.70	1.35	1.39	0.81	0.81	0.00	0.00									1.61	2.14	2.66	3.19	1.22	1,316
4th block	(l/sec/ha)	1.29	1.11	1.11	1.11	1.64	1.64	1.35	1.35	1.35	1.35	1.70	1.70	1.48	1.33	0.81	0.71	0.00	0.00									1.61	2.14	2.66	3.19	1,322
5th block	(l/sec/ha)	2.71	1.29	1.11	1.11	1.11	1.64	1.74	1.35	1.35	1.35	1.35	1.70	1.83	1.42	1.33	0.71	0.77	0.00	0.00									1.61	2.14	2.66	1,308
6th block	(l/sec/ha)	2.71	2.71	1.29	1.11	1.11	1.11	1.74	1.74	1.35	1.35	1.35	1.35	1.83	1.77	1.42	1.23	0.77	0.67	0.00	0.00									1.61	2.14	1,312
Average	(l/sec/ha)	1.67	1.49	1.32	1.31	1.33	1.36	1.48	1.47	1.46	1.46	1.45	1.35	1.37	1.02	0.73	0.44	0.26	0.11	0.00	0.00				0.27	0.62	1.07	1.60	1.80	1.98	1.88	1,310

Table D2.3-6 Irrigation Water Requirement of Upland Crop

Item		Jan						Feb						Mar						Dec					
		1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-28	1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-31
ETo at Battambang	(mm/day)	3.94	3.94	3.94	3.94	3.94	3.94	4.46	4.46	4.46	4.46	4.46	4.46	5.16	5.16	5.16	5.16	5.16	5.16	3.61	3.61	3.61	3.61	3.61	3.61
Effective Rain, ER	(mm/day)	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.88	0.88	0.88	0.88	0.88	0.88	0.39	0.39	0.39	0.39	0.39	0.39
Overall Irrigation efficiency	53%																								
1st rotation																									
Pre-irrigation or others, PR	(mm/day)																						2.0		
Crop coefficient, Kc		0.70	0.70	0.70	0.80	0.80	0.80	0.90	0.90	0.90	0.00	0.00	0.00										0.50	0.50	0.55
Consumptive use, ETc= ETo x Kc	(mm/day)	2.8	2.8	2.8	3.2	3.2	3.2	4.0	4.0	4.0	0.0	0.0	0.0										1.8	1.8	2.0
ETc - ER	(mm/day)	2.6	2.6	2.6	3.0	3.0	3.0	3.8	3.8	3.8	0.0	0.0	0.0										1.4	1.4	1.6
Net field water req ETc -ER +PR	(mm/day)	2.6	2.6	2.6	3.0	3.0	3.0	3.8	3.8	3.8	0.0	0.0	0.0										3.4	1.4	1.6
Unit irrigation water requirement	(mm/day)	5.0	5.0	5.0	5.7	5.7	5.7	7.1	7.1	7.1	0.0	0.0	0.0										6.4	2.7	3.0
Unit irrigation water requirement	(l /sec/ha)	0.57	0.57	0.57	0.66	0.66	0.66	0.82	0.82	0.82	0.00	0.00	0.00										0.75	0.31	0.35
2nd rotation																									
Pre-irrigation or others, PR	(mm/day)																							2.0	
Crop coefficient, Kc		0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.0	0.0	0.0										0.5	0.5
Consumptive use, ETc= ETo x Kc	(mm/day)	2.2	2.8	2.8	2.8	3.2	3.2	3.6	4.0	4.0	4.0	0.0	0.0	0.0										1.8	1.8
ETc - ER	(mm/day)	2.0	2.6	2.6	2.6	3.0	3.0	3.3	3.8	3.8	3.8	0.0	0.0	0.0										1.4	1.4
Net field water req ETc -ER +PR	(mm/day)	2.0	2.6	2.6	2.6	3.0	3.0	3.3	3.8	3.8	3.8	0.0	0.0	0.0										3.4	1.4
Unit irrigation water requirement	(mm/day)	3.8	5.0	5.0	5.0	5.7	5.7	6.3	7.1	7.1	7.1	0.0	0.0	0.0										6.4	2.7
Unit irrigation water requirement	(l /sec/ha)	0.45	0.57	0.57	0.57	0.66	0.66	0.72	0.82	0.82	0.82	0.00	0.00	0.00										0.75	0.31
3rd rotation																									
Pre-irrigation or others, PR	(mm/day)																								2.0
Crop coefficient, Kc		0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.0	0.0	0.0										0.5
Consumptive use, ETc= ETo x Kc	(mm/day)	2.2	2.2	2.8	2.8	2.8	3.2	3.6	3.6	4.0	4.0	4.0	0.0	0.0	0.0										1.8
ETc - ER	(mm/day)	2.0	2.0	2.6	2.6	2.6	3.0	3.3	3.3	3.8	3.8	3.8	0.0	0.0	0.0										1.4
Net field water req ETc -ER +PR	(mm/day)	2.0	2.0	2.6	2.6	2.6	3.0	3.3	3.3	3.8	3.8	3.8	0.0	0.0	0.0										3.4
Unit irrigation water requirement	(mm/day)	3.8	3.8	5.0	5.0	5.0	5.7	6.3	6.3	7.1	7.1	7.1	0.0	0.0	0.0										6.4
Unit irrigation water requirement	(l /sec/ha)	0.45	0.45	0.57	0.57	0.57	0.66	0.72	0.72	0.82	0.82	0.82	0.00	0.00	0.00										0.75
4th rotation																									
Pre-irrigation or others, PR	(mm/day)																								
Crop coefficient, Kc		0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.0	0.0	0.0									
Consumptive use, ETc= ETo x Kc	(mm/day)	2.2	2.2	2.2	2.8	2.8	2.8	3.6	3.6	3.6	4.0	4.0	4.0	0.0	0.0	0.0									
ETc - ER	(mm/day)	2.0	2.0	2.0	2.6	2.6	2.6	3.3	3.3	3.3	3.8	3.8	3.8	0.0	0.0	0.0									
Net field water req ETc -ER +PR	(mm/day)	2.0	2.0	2.0	2.6	2.6	2.6	3.3	3.3	3.3	3.8	3.8	3.8	0.0	0.0	0.0									
Unit irrigation water requirement	(mm/day)	3.8	3.8	3.8	5.0	5.0	5.0	6.3	6.3	6.3	7.1	7.1	7.1	0.0	0.0	0.0									
Unit irrigation water requirement	(l /sec/ha)	0.45	0.45	0.45	0.57	0.57	0.57	0.72	0.72	0.72	0.82	0.82	0.82	0.00	0.00	0.00									
5th rotation																									
Pre-irrigation or others, PR	(mm/day)																								
Crop coefficient, Kc			0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.0	0.0	0.0								
Consumptive use, ETc= ETo x Kc	(mm/day)		2.2	2.2	2.2	2.8	2.8	3.1	3.6	3.6	3.6	4.0	4.0	4.6	0.0	0.0	0.0								
ETc - ER	(mm/day)		2.0	2.0	2.0	2.6	2.6	2.9	3.3	3.3	3.3	3.8	3.8	3.8	0.0	0.0	0.0								
Net field water req ETc -ER +PR	(mm/day)		2.0	2.0	2.0	2.6	2.6	2.9	3.3	3.3	3.3	3.8	3.8	3.8	0.0	0.0	0.0								
Unit irrigation water requirement	(mm/day)		3.8	3.8	3.8	5.0	5.0	5.4	6.3	6.3	6.3	7.1	7.1	7.1	0.0	0.0	0.0								
Unit irrigation water requirement	(l /sec/ha)		0.45	0.45	0.45	0.57	0.57	0.63	0.72	0.72	0.72	0.82	0.82	0.82	0.00	0.00	0.00								
6th rotation																									
Pre-irrigation or others, PR	(mm/day)																								
Crop coefficient, Kc				0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.0	0.0	0.0							
Consumptive use, ETc= ETo x Kc	(mm/day)			2.2	2.2	2.2	2.8	3.1	3.1	3.6	3.6	3.6	4.0	4.6	4.6	0.0	0.0	0.0							
ETc - ER	(mm/day)			2.0	2.0	2.0	2.6	2.9	2.9	3.3	3.3	3.3	3.8	3.8	3.8	0.0	0.0	0.0							
Net field water req ETc -ER +PR	(mm/day)			2.0	2.0	2.0	2.6	2.9	2.9	3.3	3.3	3.3	3.8	3.8	3.8	0.0	0.0	0.0							
Unit irrigation water requirement	(mm/day)			3.8	3.8	3.8	5.0	5.4	5.4	6.3	6.3	6.3	7.1	7.1	7.1	0.0	0.0	0.0							
Unit irrigation water requirement	(l /sec/ha)			0.45	0.45	0.45	0.57	0.63	0.63	0.72	0.72	0.72	0.82	0.82	0.82	0.00	0.00	0.00							

Summary table of unit diversion water requirement

		Jan						Feb						Mar						Dec						Total
		1-5	6-10	11-15	16-20	21-25	26-31	1-5	6-10	11-15	16-20	21-25	26-28	1-5	6-10	11-15	16-20	21-25	26-28	1-5	6-10	11-15	16-20	21-25	26-31	(mm)
1st block	(l /sec/ha)	0.57	0.57	0.57	0.66	0.66	0.66	0.82	0.82	0.82	0.00	0.00	0.00										0.75	0.31	0.35	327
2nd block	(l /sec/ha)	0.45	0.57	0.57	0.57	0.66	0.66	0.72	0.82	0.82	0.82	0.00	0.00	0.00										0.75	0.31	334
3rd block	(l /sec/ha)	0.45	0.45	0.57	0.57	0.57	0.66	0.72	0.72	0.82	0.82	0.82	0.00	0.00	0.00										0.75	343
4th block	(l /sec/ha)	0.45	0.45	0.45	0.57	0.57	0.57	0.72	0.72	0.72	0.82	0.82	0.82	0.00	0.00	0.00										332
5th block	(l /sec/ha)		0.45	0.45	0.45	0.57	0.57	0.63	0.72	0.72	0.72	0.82	0.82	0.82	0.00	0.00	0.00									335
6th block	(l /sec/ha)			0.45	0.45	0.45	0.57	0.63	0.63	0.72	0.72	0.72	0.82	0.82	0.82	0.00	0.00	0.00								337
Average	(l /sec/ha)	0.32	0.41	0.51	0.55	0.58	0.62	0.71	0.74	0.77	0.65	0.53	0.41	0.27	0.14	0.00	0.00	0.00					0.12	0.18	0.23	335

Table D2.3-7 Probable 5-day Effective Rainfall in the Paddy Field

Battambang River Basin

Day of month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 - 5	0.0	0.0	0.0	2.5	9.2	8.4	15.8	17.1	11.1	21.2	2.0	0.0
6 - 10	0.0	0.0	1.5	1.7	7.9	16.6	8.0	8.2	8.6	10.9	1.4	0.0
11 - 15	0.0	0.0	1.5	7.2	9.1	18.1	11.9	17.2	25.6	31.0	1.8	0.0
16 - 20	0.0	0.0	4.4	3.0	16.4	32.7	6.9	14.4	16.8	4.7	1.6	0.0
21 - 25	0.0	0.0	2.5	10.7	4.6	8.2	16.1	14.8	15.2	9.2	1.5	0.0
26 - end	0.0	0.0	6.4	7.5	8.0	25.3	16.0	23.0	13.8	28.0	0.0	0.0
Total	0.0	0.0	16.2	32.6	55.3	109.4	74.7	94.7	91.2	105.1	8.4	0.0

Moung Russey River Basin

Day of month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 - 5	0.0	0.0	0.0	3.0	10.7	14.2	19.8	8.5	11.5	28.1	2.8	0.0
6 - 10	0.0	0.0	0.0	3.8	6.5	7.0	11.7	9.0	14.1	14.1	2.9	0.0
11 - 15	0.0	0.0	0.1	5.9	14.6	9.8	13.3	9.6	17.6	36.3	3.2	0.0
16 - 20	0.0	0.0	0.1	4.4	11.1	12.0	11.8	8.9	13.9	13.6	2.8	0.0
21 - 25	0.0	0.0	0.2	7.5	7.5	9.2	11.0	14.9	17.1	30.4	2.5	0.0
26 - end	0.0	0.0	0.2	3.7	9.9	8.3	15.4	11.1	13.6	12.6	0.7	0.0
Total	0.0	0.0	0.6	28.1	60.4	60.5	83.0	61.9	87.8	135.1	14.9	0.0

Pursat River Basin

Day of month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 - 5	0.0	0.0	0.2	5.4	7.4	10.6	11.6	10.8	15.7	20.2	2.9	0.0
6 - 10	0.0	0.0	0.3	2.2	9.0	6.3	9.5	13.0	16.5	12.9	2.0	0.0
11 - 15	0.0	0.0	0.1	4.3	13.4	10.6	7.7	13.6	19.4	25.2	3.3	0.0
16 - 20	0.0	0.0	0.5	3.3	7.0	11.0	13.3	12.2	20.7	8.6	3.5	0.0
21 - 25	0.0	0.0	0.4	10.5	6.0	7.3	14.3	14.6	16.5	15.8	3.4	0.0
26 - end	0.0	0.0	0.9	2.1	10.4	8.9	12.8	12.4	11.6	16.5	3.3	0.0
Total	0.0	0.0	2.4	27.8	53.2	54.8	69.2	76.6	100.4	99.2	18.5	0.0

Boribo River Sub-basins g), h), i) and j)

Day of month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 - 5	0.0	0.0	0.0	1.8	5.0	11.8	11.1	15.7	30.8	22.5	0.5	0.0
6 - 10	0.0	0.0	0.1	1.6	5.9	12.1	10.3	15.2	20.8	13.8	0.5	0.0
11 - 15	0.0	0.0	0.1	1.5	10.8	10.9	18.1	16.5	20.4	16.5	0.7	0.0
16 - 20	0.0	0.0	0.4	1.6	10.3	13.4	16.3	16.5	25.7	15.7	0.4	0.0
21 - 25	0.0	0.0	0.2	1.8	13.5	16.2	17.9	18.2	20.8	21.5	0.3	0.0
26 - end	0.0	0.0	0.1	2.2	11.6	16.2	17.8	24.8	22.7	10.8	0.1	0.0
Total	0.0	0.0	0.8	10.5	56.9	80.5	91.4	106.9	141.3	100.8	2.5	0.0

Boribo River Sub-basin k)

Day of month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 - 5	0.0	0.0	0.0	1.6	2.5	4.8	8.5	8.9	31.6	22.3	1.6	0.0
6 - 10	0.0	0.0	0.0	1.8	6.3	11.6	7.8	12.2	24.7	17.6	1.3	0.0
11 - 15	0.0	0.0	0.0	3.2	6.2	11.8	7.2	16.8	18.4	18.3	0.8	0.0
16 - 20	0.0	0.0	0.0	5.2	10.0	8.5	18.4	16.3	23.4	20.9	0.2	0.0
21 - 25	0.0	0.0	0.0	5.5	7.0	15.6	11.5	15.5	33.3	22.9	0.3	0.0
26 - end	0.0	0.0	0.0	3.7	2.7	4.4	11.5	24.0	25.4	10.9	0.9	0.0
Total	0.0	0.0	0.0	20.8	34.7	56.7	64.9	93.6	156.8	112.8	5.1	0.0

Table 2.3-8 Average Monthly Effective Rainfall as Related to Average Monthly ETcrop and Mean Monthly Rainfall (USDA(SCA),1969)

Monthly mean rainfall in mm		12.5	25	37.5	50	62.5	75	87.5	100	112.5	125	137.5	150	162.5	175	187.5	200
		Average monthly effective rainfall in mm															
Average monthly ET crop mm	25	8	16	24	30	37	44	50	55	62	70	74	82	82	88	96	96
	50	8	17	25	32	39	46	53	58	65	73	78	86	88	95	102	102
	75	9	18	27	34	41	48	56	62	69	76	82	90	94	102	108	109
	100	9	19	28	35	43	52	59	66	73	80	87	94	100	109	114	117
	125	10	20	30	37	46	54	62	70	76	85	92	98	107	116	120	125
	150	10	21	31	39	49	57	66	74	81	89	97	104	112	119	127	133
	175	11	23	32	42	52	61	69	78	86	95	103	111	118	126	134	141
	200	11	24	33	44	54	64	73	82	91	100	109	117	125	134	142	150
	225	12	25	35	47	57	68	78	87	96	106	115	124	132	141	150	159
	250	13	25	38	50	61	72	84	92	102	112	121	132	140	150	158	167

Where net depth of water that can be stored in the soil at time of irrigation is greater or smaller than 75 mm. the correction factor to be used is:

Effective storage	20	25	37.5	50	62.5	75	100	125	150	175	200
Storage factor	0.73	0.77	0.86	0.93	0.97	1	1.02	1.04	1.06	1.07	1.08

EXAMPLE: Given:

Monthly mean rainfall=100 mm; ET crop=150 mm; effective stroage=175 mm

Sample calculation: 100 150 175

Correction factor for effective storage=1.07 1.07

Source: Ref. (FAO, 1977) Effective rainfall=1.07x74=79 mm 8 74 79

Calculation for basin or sub-basin

Battambang River Basin			Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
ETo	mm/month		122	125	160	153	150	131	137	123	115	117	108	112
ETcrop	mm/month	0.7	86	87	112	107	105	91	96	86	81	82	75	78
Monthly rainfall	mm/month		5.5	9.9	35.1	96.5	116.8	167.1	143.2	176.1	148.2	222.1	45.8	16.6
Effective rainfall			4.0	7.1	27.2	65.1	76.2	101.1	89.5	105.7	89.8	111.2	31.7	12.0
Moung Russey River Basin			Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
ETo	mm/month		122	122.1	151.6	144.3	143.4	123.1	132	119.4	114.5	118	108.3	110.8
ETcrop	mm/month	0.7	85.41	85.48	106.1	101	100.4	86.19	92.37	83.55	80.14	82.59	75.78	77.58
Monthly rainfall	mm/month		1.191	6.094	29.19	82.45	128.2	127.1	134.2	146.4	173	248.1	58.44	11.26
Effective rainfall			0.9	4.4	22.3	56.3	81.9	78.9	83.7	89.2	102.1	111.4	38.8	8.1
Pursat Rivr Basin			Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
ETo	mm/month		119.6	119.6	146	139.2	138	116.1	125.9	114.7	111.5	115.8	105.2	107.3
ETcrop	mm/month	0.7	83.71	83.69	102.2	97.44	96.6	81.24	88.13	80.27	78.02	81.05	73.63	75.12
Monthly rainfall	mm/month		0.214	2.162	42.13	91.63	124.3	135.6	150.6	163.7	199.6	241.1	58.84	12.9
Effective rainfall			0.2	1.6	30.8	61.0	79.4	82.3	92.3	96.0	109.9	110.9	38.7	9.3
Boribo River Sub-basin g, h, i & j			Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
ETo	mm/month		126	131.6	161.2	159	156	139.8	135.8	138.1	124	116.4	116.1	119.2
ETcrop	mm/month	0.7	88.23	92.13	112.9	111.3	109.2	97.88	95.04	96.65	86.8	81.46	81.3	83.44
Monthly rainfall	mm/month		5.883	5.721	15.1	69.71	136.4	156.8	158	216.8	229.1	187.3	63.99	16.31
Effective rainfall			4.2	4.1	11.6	49.3	88.2	96.8	96.8	115.9	112.8	109.5	42.4	11.8
Boribo River Sub-basin k			Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
ETo	mm/month		126	131.6	161.2	159	156	139.8	135.8	138.1	124	116.4	116.1	119.2
ETcrop	mm/month	0.7	88.23	92.13	112.9	111.3	109.2	97.88	95.04	96.65	86.8	81.46	81.3	83.44
Monthly rainfall	mm/month		9.541	5.482	2.614	53.08	96.1	116.9	106.2	188.7	220	168.1	56.21	15.42
Effective rainfall			6.9	3.9	2.0	38.0	65.2	75.1	68.7	113.5	112.8	99.2	37.9	11.2

Table D2.3-9 Sample Calculation of Unit Diversion Water Requirement

Battambang, Tranplanted

Early Paddy Transplanted (April - July)

Cropping Area (ha)

Month	5-day	Area factor						1.00	1,000 m3/sec
Jan	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Feb	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Mar	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Apr	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25	0.25						0.25	0.25
	26-end	0.34	0.27					0.61	0.61
May	1-5	0.41	0.35	0.27				1.03	1.03
	6-10	0.50	0.44	0.36	0.27			1.57	1.57
	11-15	0.18	0.52	0.44	0.35	0.27		1.77	1.77
	16-20	0.14	0.15	0.47	0.40	0.33	0.24	1.74	1.74
	21-25	0.18	0.22	0.22	0.55	0.46	0.35	1.98	1.98
	26-end	0.17	0.18	0.21	0.21	0.54	0.42	1.73	1.73
Jun	1-5	0.14	0.15	0.15	0.18	0.18	0.48	1.29	1.29
	6-10	0.18	0.10	0.10	0.10	0.13	0.13	0.74	0.74
	11-15	0.17	0.18	0.09	0.09	0.09	0.12	0.74	0.74
	16-20	0.03	0.09	0.09	0.01	0.01	0.01	0.23	0.23
	21-25	0.17	0.18	0.24	0.24	0.15	0.14	1.11	1.11
	26-end	0.07	0.07	0.07	0.13	0.13	0.05	0.54	0.54
Jul	1-5	0.11	0.13	0.13	0.13	0.19	0.18	0.89	0.89
	6-10	0.21	0.18	0.18	0.18	0.18	0.23	1.16	1.16
	11-15	0.19	0.22	0.16	0.16	0.16	0.15	1.03	1.03
	16-20	0.16	0.23	0.25	0.19	0.19	0.18	1.19	1.19
	21-25	0.11	0.12	0.18	0.19	0.13	0.12	0.86	0.86
	26-end		0.14	0.14	0.20	0.21	0.14	0.81	0.81
Aug	1-5			0.10	0.10	0.16	0.16	0.52	0.52
	6-10				0.15	0.15	0.20	0.51	0.51
	11-15					0.10	0.09	0.19	0.19
	16-20						0.11	0.11	0.11
	21-25							0.00	0.00
	26-end							0.00	0.00
Sep	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Oct	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Nov	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Dec	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Average								0.31	0.31
Max								1.98	1.98

Medium Paddy Transplanted (Agust - December)

Cropping Area (ha)

Month	5-day	Area factor												1.00	1,000 m3/sec
Jan	1-5	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.08	0.08	0.08	0.00	0.00
	6-10													0.00	0.00
	11-15													0.00	0.00
	16-20													0.00	0.00
	21-25													0.00	0.00
	26-end													0.00	0.00
Feb	1-5													0.00	0.00
	6-10													0.00	0.00
	11-15													0.00	0.00
	16-20													0.00	0.00
	21-25													0.00	0.00
	26-end													0.00	0.00
Mar	1-5													0.00	0.00
	6-10													0.00	0.00
	11-15													0.00	0.00
	16-20													0.00	0.00
	21-25													0.00	0.00
	26-end													0.00	0.00
Apr	1-5													0.00	0.00
	6-10													0.00	0.00
	11-15													0.00	0.00
	16-20													0.00	0.00
	21-25													0.00	0.00
	26-end													0.00	0.00
May	1-5													0.00	0.00
	6-10													0.00	0.00
	11-15													0.00	0.00
	16-20													0.00	0.00
	21-25													0.00	0.00
	26-end													0.00	0.00
Jun	1-5													0.00	0.00
	6-10													0.00	0.00
	11-15	0.14												0.14	0.14
	16-20	0.14	0.13											0.27	0.27
	21-25	0.23	0.18	0.13										0.54	0.54
	26-end	0.21	0.18	0.14	0.12									0.64	0.64
Jul	1-5	0.07	0.24	0.18	0.15	0.12								0.78	0.78
	6-10	0.10	0.10	0.24	0.20	0.16	0.13							0.94	0.94
	11-15	0.07	0.09	0.08	0.23	0.19	0.16	0.12						0.94	0.94
	16-20	0.09	0.09	0.09	0.09	0.25	0.21	0.17	0.14					1.12	1.12
	21-25	0.06	0.06	0.05	0.07	0.07	0.22	0.18	0.17	0.14				1.01	1.01
	26-end	0.07	0.07	0.06	0.06	0.07	0.07	0.22	0.21	0.18	0.12			1.14	1.14
Aug	1-5	0.05	0.05	0.04	0.04	0.04	0.06	0.06	0.23	0.20	0.15	0.12		1.02	1.02
	6-10	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.09	0.26	0.20	0.16	0.13	1.33	1.33
	11-15	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.06	0.06	0.20	0.18	0.15	0.95	0.95
	16-20	0.05	0.08	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.06	0.21	0.18	0.94	0.94
	21-25	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.08	0.06	0.21	0.79	0.79
	26-end	0.08	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.51	0.51
Sep	1-5	0.11	0.11	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.80	0.80
	6-10	0.08	0.12	0.10	0.06	0.06	0.06	0.06	0.07	0.07	0.06	0.06	0.06	0.88	0.88
	11-15	0.03	0.03	0.05	0.05	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.29	0.29
	16-20	0.06	0.06	0.05	0.08	0.08	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.61	0.61
	21-25	0.06	0.06	0.06	0.06	0.08	0.08	0.04	0.05	0.05	0.04	0.04	0.04	0.68	0.68
	26-end	0.07	0.07	0.06	0.06	0.06	0.09	0.09	0.05	0.05	0.05	0.05	0.05	0.74	0.74
Oct	1-5	0.04	0.04	0.04	0.04	0.04	0.04	0.07	0.07	0.03	0.02	0.03	0.03	0.48	0.48
	6-10	0.10	0.07	0.07	0.07	0.07	0.07	0.07	0.11	0.11	0.05	0.05	0.06	0.88	0.88
	11-15	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04			0.22	0.22
	16-20	0.09	0.12	0.11	0.08	0.08	0.08	0.08	0.09	0.09	0.11	0.11	0.07	1.13	1.13
	21-25	0.07	0.07	0.09	0.09	0.07	0.07	0.07	0.08	0.08	0.07	0.07	0.10	0.95	0.95
	26-end		0.03	0.03	0.05	0.05	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.39	0.39
Nov	1-5			0.08	0.08	0.11	0.11	0.08	0.10	0.10	0.09	0.09	0.09	0.95	0.95
	6-10				0.09	0.09	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.87	0.87
	11-15					0.06	0.08	0.11	0.13	0.13	0.09	0.09	0.09	0.81	0.81
	16-20						0.09	0.09	0.13	0.13	0.11	0.11	0.09	0.74	0.74
	21-25							0.09	0.10	0.10	0.11	0.11	0.11	0.62	0.62
	26-end								0.10	0.10	0.09	0.09	0.12	0.50	0.50
Dec	1-5										0.09	0.09	0.09	0.27	0.27
	6-10												0.09	0.09	0.09
	11-15													0.00	0.00
	16-20													0.00	0.00
	21-25													0.00	0.00
	26-end													0.00	0.00
Average														0.36	0.36
Max														1.33	1.33

Dry Season Paddy (December to March)

Cropping Area (ha)

Month	5-day	Area factor						1.00	1,000 m3/sec
Jan	1-5	0.19	0.19	0.22	0.22	0.43	0.43	1.68	1.68
	6-10	0.19	0.19	0.19	0.22	0.21	0.43	1.42	1.42
	11-15	0.28	0.19	0.19	0.19	0.21	0.21	1.26	1.26
	16-20	0.27	0.28	0.19	0.19	0.18	0.21	1.31	1.31
	21-25	0.21	0.27	0.28	0.19	0.18	0.18	1.31	1.31
	26-end	0.21	0.21	0.27	0.28	0.18	0.18	1.33	1.33
Feb	1-5	0.23	0.23	0.23	0.29	0.28	0.19	1.45	1.45
	6-10	0.23	0.23	0.23	0.23	0.27	0.28	1.47	1.47
	11-15	0.29	0.23	0.23	0.23	0.22	0.27	1.46	1.46
	16-20	0.29	0.29	0.23	0.23	0.22	0.22	1.47	1.47
	21-25	0.22	0.29	0.29	0.23	0.22	0.22	1.45	1.45
	26-end	0.22	0.22	0.29	0.29	0.22	0.22	1.44	1.44
Mar	1-5		0.24	0.24	0.31	0.29	0.24	1.31	1.31
	6-10			0.23	0.23	0.28	0.28	1.02	1.02
	11-15				0.23	0.21	0.28	0.72	0.72
	16-20					0.20	0.20	0.39	0.39
	21-25						0.21	0.21	0.21
	26-end							0.00	0.00
Apr	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
May	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Jun	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Jul	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Aug	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Sep	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Oct	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Nov	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end	0.27						0.27	0.27
Dec	1-5	0.36	0.27					0.64	0.64
	6-10	0.45	0.36	0.27				1.09	1.09
	11-15	0.54	0.45	0.36	0.27			1.63	1.63
	16-20	0.21	0.54	0.45	0.36	0.26		1.82	1.82
	21-25	0.21	0.21	0.54	0.45	0.34	0.26	2.01	2.01
	26-end	0.18	0.21	0.21	0.54	0.43	0.34	1.90	1.90
Average								0.42	0.42
Max								2.01	2.01

Upland crops (December to March)

Cropping Area (ha)

Month	5-day	Area factor						1.00	1,000 m3/sec
Jan	1-5	0.09	0.07	0.08	0.08			0.32	0.32
	6-10	0.09	0.09	0.08	0.08	0.08		0.41	0.41
	11-15	0.09	0.09	0.10	0.08	0.08	0.07	0.51	0.51
	16-20	0.10	0.09	0.10	0.10	0.08	0.07	0.54	0.54
	21-25	0.10	0.11	0.10	0.10	0.10	0.07	0.58	0.58
	26-end	0.10	0.11	0.12	0.10	0.10	0.09	0.62	0.62
Feb	1-5	0.12	0.12	0.13	0.13	0.11	0.10	0.71	0.71
	6-10	0.12	0.13	0.13	0.13	0.12	0.10	0.74	0.74
	11-15	0.12	0.13	0.15	0.13	0.12	0.12	0.77	0.77
	16-20		0.13	0.15	0.15	0.12	0.12	0.67	0.67
	21-25			0.15	0.15	0.14	0.12	0.55	0.55
	26-end				0.15	0.14	0.13	0.42	0.42
Mar	1-5					0.14	0.13	0.27	0.27
	6-10						0.13	0.13	0.13
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Apr	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
May	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Jun	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Jul	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Aug	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Sep	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Oct	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Nov	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20							0.00	0.00
	21-25							0.00	0.00
	26-end							0.00	0.00
Dec	1-5							0.00	0.00
	6-10							0.00	0.00
	11-15							0.00	0.00
	16-20	0.11						0.11	0.11
	21-25	0.05	0.12					0.17	0.17
	26-end	0.05	0.05	0.13				0.24	0.24
Average								0.11	0.11
Max								0.77	0.77

Total Diversion Req.

4,000 m3/sec	Month
2.00	1-5 Jan
1.84	6-10 Jan
1.76	11-15 Jan
1.86	16-20 Jan
1.89	21-25 Jan
1.95	26-end Jan
2.15	1-5 Feb
2.20	6-10 Feb
2.24	11-15 Feb
2.13	16-20 Feb
2.00	21-25 Feb
1.86	26-end Feb
1.58	1-5 Mar
1.15	6-10 Mar
0.72	11-15 Mar
0.39	16-20 Mar
0.21	21-25 Mar
0.00	26-end Mar
0.00	1-5 Apr
0.00	6-10 Apr
0.00	11-15 Apr
0.00	16-20 Apr
0.25	21-25 Apr
0.61	26-end Apr
1.03	1-5 May
1.57	6-10 May
1.77	11-15 May
1.74	16-20 May
1.98	21-25 May
1.73	26-end May
1.29	1-5 Jun
0.74	6-10 Jun
0.88	11-15 Jun
0.50	16-20 Jun
1.65	21-25 Jun
1.18	26-end Jun
1.67	1-5 Jul
2.10	6-10 Jul
1.97	11-15 Jul
2.31	16-20 Jul
1.86	21-25 Jul
1.95	26-end Jul
1.55	1-5 Aug
1.84	6-10 Aug
1.14	11-15 Aug
1.05	16-20 Aug
0.79	21-25 Aug
0.51	26-end Aug
0.80	1-5 Sep
0.88	6-10 Sep
0.29	11-15 Sep
0.61	16-20 Sep
0.68	21-25 Sep
0.74	26-end Sep
0.48	1-5 Oct
0.88	6-10 Oct
0.22	11-15 Oct
1.13	16-20 Oct
0.95	21-25 Oct
0.39	26-end Oct
0.95	1-5 Nov
0.87	6-10 Nov
0.81	11-15 Nov
0.74	16-20 Nov
0.62	21-25 Nov
0.78	26-end Nov
0.91	1-5 Dec
1.18	6-10 Dec
1.63	11-15 Dec
1.93	16-20 Dec
2.18	21-25 Dec
2.14	26-end Dec
1.20	Average
2.31	Max

Table D2.3-10 Unit Diversion Water Requirement in the Four River Basins (1/2)

River basin		Battambang River Basin					Moung Russey River Basin				
Farming		Transplanting			Direct sowing		Transplanting			Direct sowing	
Month	5-day	Early paddy (Apr-July)	Medium paddy (Aug-Dec)	Dry paddy (Dec-Mar)	Paddy Direct (May-Dec)	Upland crops (Dec-Mar)	Early paddy (Apr-July)	Medium paddy (Aug-Dec)	Dry paddy (Dec-Mar)	Paddy Direct (May-Dec)	Upland crops (Dec-Mar)
Jan	1-5	0.00	0.00	1.68	0.00	0.32	0.00	0.00	1.54	0.00	0.34
	6-10	0.00	0.00	1.42	0.00	0.41	0.00	0.00	1.29	0.00	0.44
	11-15	0.00	0.00	1.26	0.00	0.51	0.00	0.00	1.10	0.00	0.54
	16-20	0.00	0.00	1.31	0.00	0.54	0.00	0.00	1.14	0.00	0.57
	21-25	0.00	0.00	1.31	0.00	0.58	0.00	0.00	1.14	0.00	0.61
	26-end	0.00	0.00	1.33	0.00	0.62	0.00	0.00	1.15	0.00	0.64
Feb	1-5	0.00	0.00	1.45	0.00	0.71	0.00	0.00	1.25	0.00	0.74
	6-10	0.00	0.00	1.47	0.00	0.74	0.00	0.00	1.26	0.00	0.78
	11-15	0.00	0.00	1.46	0.00	0.77	0.00	0.00	1.25	0.00	0.81
	16-20	0.00	0.00	1.47	0.00	0.67	0.00	0.00	1.25	0.00	0.70
	21-25	0.00	0.00	1.45	0.00	0.55	0.00	0.00	1.24	0.00	0.58
	26-end	0.00	0.00	1.44	0.00	0.42	0.00	0.00	1.23	0.00	0.44
Mar	1-5	0.00	0.00	1.31	0.00	0.27	0.00	0.00	1.12	0.00	0.32
	6-10	0.00	0.00	1.02	0.00	0.13	0.00	0.00	0.90	0.00	0.15
	11-15	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.64	0.00	0.00
	16-20	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.39	0.00	0.00
	21-25	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.19	0.00	0.00
	26-end	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	1-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	11-15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	16-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21-25	0.25	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
	26-end	0.61	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
May	1-5	1.03	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00
	6-10	1.57	0.00	0.00	0.00	0.00	1.47	0.00	0.00	0.00	0.00
	11-15	1.77	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00
	16-20	1.74	0.00	0.00	0.04	0.00	1.68	0.00	0.00	0.06	0.00
	21-25	1.98	0.00	0.00	0.13	0.00	1.67	0.00	0.00	0.11	0.00
	26-end	1.73	0.00	0.00	0.19	0.00	1.46	0.00	0.00	0.16	0.00
Jun	1-5	1.29	0.00	0.00	0.20	0.00	0.88	0.00	0.00	0.10	0.00
	6-10	0.74	0.00	0.00	0.21	0.00	0.89	0.00	0.00	0.34	0.00
	11-15	0.74	0.14	0.00	0.32	0.00	0.82	0.12	0.00	0.40	0.00
	16-20	0.23	0.27	0.00	0.17	0.00	0.74	0.27	0.00	0.42	0.00
	21-25	1.11	0.54	0.00	0.72	0.00	0.86	0.45	0.00	0.57	0.00
	26-end	0.54	0.64	0.00	0.32	0.00	0.90	0.67	0.00	0.68	0.00
Jul	1-5	0.89	0.78	0.00	0.67	0.00	0.53	0.62	0.00	0.39	0.00
	6-10	1.16	0.94	0.00	1.07	0.00	0.80	0.79	0.00	0.75	0.00
	11-15	1.03	0.94	0.00	0.99	0.00	0.73	0.83	0.00	0.74	0.00
	16-20	1.19	1.12	0.00	1.22	0.00	0.77	0.93	0.00	0.83	0.00
	21-25	0.86	1.01	0.00	0.85	0.00	0.79	1.03	0.00	0.82	0.00
	26-end	0.81	1.14	0.00	0.91	0.00	0.61	1.03	0.00	0.73	0.00
Aug	1-5	0.52	1.02	0.00	0.71	0.00	0.56	1.13	0.00	0.82	0.00
	6-10	0.51	1.33	0.00	1.03	0.00	0.39	1.15	0.00	0.81	0.00
	11-15	0.19	0.95	0.00	0.73	0.00	0.22	1.04	0.00	0.79	0.00
	16-20	0.11	0.94	0.00	0.79	0.00	0.11	0.97	0.00	0.79	0.00
	21-25	0.00	0.79	0.00	0.74	0.00	0.00	0.63	0.00	0.55	0.00
	26-end	0.00	0.51	0.00	0.59	0.00	0.00	0.70	0.00	0.75	0.00
Sep	1-5	0.00	0.80	0.00	0.84	0.00	0.00	0.64	0.00	0.67	0.00
	6-10	0.00	0.88	0.00	0.93	0.00	0.00	0.54	0.00	0.58	0.00
	11-15	0.00	0.29	0.00	0.34	0.00	0.00	0.43	0.00	0.45	0.00
	16-20	0.00	0.61	0.00	0.65	0.00	0.00	0.56	0.00	0.58	0.00
	21-25	0.00	0.68	0.00	0.70	0.00	0.00	0.46	0.00	0.47	0.00
	26-end	0.00	0.74	0.00	0.75	0.00	0.00	0.59	0.00	0.59	0.00
Oct	1-5	0.00	0.48	0.00	0.47	0.00	0.00	0.09	0.00	0.08	0.00
	6-10	0.00	0.88	0.00	0.86	0.00	0.00	0.60	0.00	0.59	0.00
	11-15	0.00	0.22	0.00	0.19	0.00	0.00	0.01	0.00	0.00	0.00
	16-20	0.00	1.13	0.00	1.10	0.00	0.00	0.64	0.00	0.62	0.00
	21-25	0.00	0.95	0.00	0.94	0.00	0.00	0.05	0.00	0.04	0.00
	26-end	0.00	0.39	0.00	0.40	0.00	0.00	0.66	0.00	0.64	0.00
Nov	1-5	0.00	0.95	0.00	0.92	0.00	0.00	0.80	0.00	0.75	0.00
	6-10	0.00	0.87	0.00	0.81	0.00	0.00	0.72	0.00	0.65	0.00
	11-15	0.00	0.81	0.00	0.67	0.00	0.00	0.66	0.00	0.53	0.00
	16-20	0.00	0.74	0.00	0.56	0.00	0.00	0.61	0.00	0.45	0.00
	21-25	0.00	0.62	0.00	0.39	0.00	0.00	0.51	0.00	0.32	0.00
	26-end	0.00	0.50	0.27	0.25	0.00	0.00	0.42	0.25	0.21	0.00
Dec	1-5	0.00	0.27	0.64	0.12	0.00	0.00	0.23	0.59	0.11	0.00
	6-10	0.00	0.09	1.09	0.00	0.00	0.00	0.08	1.00	0.00	0.00
	11-15	0.00	0.00	1.63	0.00	0.00	0.00	0.00	1.49	0.00	0.00
	16-20	0.00	0.00	1.82	0.00	0.11	0.00	0.00	1.68	0.00	0.12
	21-25	0.00	0.00	2.01	0.00	0.17	0.00	0.00	1.84	0.00	0.19
	26-end	0.00	0.00	1.90	0.00	0.24	0.00	0.00	1.74	0.00	0.28
Average		0.31	0.36	0.42	0.34	0.11	0.28	0.30	0.37	0.28	0.11
Max		1.98	1.33	2.01	1.22	0.77	1.68	1.15	1.84	0.83	0.81

Table D2.3-10 Unit Diversion Water Requirement in Four River Basins (2/2)

River basin		Pursat River Basin					Boribo River Sub-basin g,h,i, & j			Boribo River Sub-basin k		
Farming		Transplanting			Direct sowing		Transplanting			Transplanting		
Month	5-day	Early paddy (Apr-July)	Medium paddy (Aug-Dec)	Dry paddy (Dec-Mar)	Paddy Direct (May-Dec)	Upland crops (Dec-Mar)	Early paddy (Apr-July)	Medium paddy (Aug-Dec)	Upland crops (Dec-Mar)	Early paddy (Apr-July)	Medium paddy (Aug-Dec)	Upland crops (Dec-Mar)
Jan	1-5	0.00	0.00	1.42	0.00	0.33	0.00	0.00	0.33	0.00	0.00	0.31
	6-10	0.00	0.00	1.18	0.00	0.43	0.00	0.00	0.43	0.00	0.00	0.41
	11-15	0.00	0.00	0.99	0.00	0.52	0.00	0.00	0.52	0.00	0.00	0.51
	16-20	0.00	0.00	1.01	0.00	0.56	0.00	0.00	0.56	0.00	0.00	0.54
	21-25	0.00	0.00	1.01	0.00	0.59	0.00	0.00	0.60	0.00	0.00	0.58
	26-end	0.00	0.00	1.02	0.00	0.63	0.00	0.00	0.64	0.00	0.00	0.62
Feb	1-5	0.00	0.00	1.11	0.00	0.72	0.00	0.00	0.77	0.00	0.00	0.77
	6-10	0.00	0.00	1.11	0.00	0.75	0.00	0.00	0.80	0.00	0.00	0.81
	11-15	0.00	0.00	1.11	0.00	0.78	0.00	0.00	0.84	0.00	0.00	0.84
	16-20	0.00	0.00	1.11	0.00	0.67	0.00	0.00	0.72	0.00	0.00	0.73
	21-25	0.00	0.00	1.10	0.00	0.56	0.00	0.00	0.60	0.00	0.00	0.60
	26-end	0.00	0.00	1.08	0.00	0.42	0.00	0.00	0.45	0.00	0.00	0.46
Mar	1-5	0.00	0.00	0.97	0.00	0.23	0.00	0.00	0.31	0.00	0.00	0.33
	6-10	0.00	0.00	0.78	0.00	0.11	0.00	0.00	0.15	0.00	0.00	0.16
	11-15	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	16-20	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21-25	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	26-end	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	1-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	11-15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	16-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21-25	0.24	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.25	0.00	0.00
	26-end	0.58	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.60	0.00	0.00
May	1-5	0.93	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.02	0.00	0.00
	6-10	1.34	0.00	0.00	0.00	0.00	1.47	0.00	0.00	1.47	0.00	0.00
	11-15	1.40	0.00	0.00	0.00	0.00	1.56	0.00	0.00	1.67	0.00	0.00
	16-20	1.66	0.00	0.00	0.07	0.00	1.71	0.00	0.00	1.71	0.00	0.00
	21-25	1.57	0.00	0.00	0.11	0.00	1.49	0.00	0.00	1.70	0.00	0.00
	26-end	1.29	0.00	0.00	0.14	0.00	1.43	0.00	0.00	1.69	0.00	0.00
Jun	1-5	0.86	0.00	0.00	0.14	0.00	1.03	0.00	0.00	1.28	0.00	0.00
	6-10	0.77	0.00	0.00	0.31	0.00	0.76	0.00	0.00	0.78	0.00	0.00
	11-15	0.64	0.12	0.00	0.32	0.00	0.84	0.12	0.00	0.80	0.12	0.00
	16-20	0.62	0.27	0.00	0.37	0.00	0.74	0.27	0.00	0.91	0.28	0.00
	21-25	0.76	0.45	0.00	0.54	0.00	0.66	0.42	0.00	0.68	0.43	0.00
	26-end	0.71	0.65	0.00	0.56	0.00	0.67	0.61	0.00	1.08	0.72	0.00
Jul	1-5	0.65	0.70	0.00	0.54	0.00	0.79	0.70	0.00	0.88	0.75	0.00
	6-10	0.71	0.78	0.00	0.69	0.00	0.80	0.79	0.00	0.89	0.83	0.00
	11-15	0.76	0.87	0.00	0.78	0.00	0.52	0.73	0.00	0.90	0.91	0.00
	16-20	0.56	0.81	0.00	0.61	0.00	0.57	0.82	0.00	0.50	0.74	0.00
	21-25	0.51	0.83	0.00	0.55	0.00	0.50	0.85	0.00	0.72	0.94	0.00
	26-end	0.53	0.95	0.00	0.66	0.00	0.51	0.95	0.00	0.67	1.06	0.00
Aug	1-5	0.39	0.94	0.00	0.59	0.00	0.41	0.97	0.00	0.57	1.15	0.00
	6-10	0.24	0.89	0.00	0.52	0.00	0.30	1.01	0.00	0.35	1.13	0.00
	11-15	0.13	0.79	0.00	0.51	0.00	0.16	0.88	0.00	0.16	0.90	0.00
	16-20	0.07	0.73	0.00	0.54	0.00	0.08	0.77	0.00	0.08	0.80	0.00
	21-25	0.00	0.52	0.00	0.43	0.00	0.00	0.59	0.00	0.00	0.68	0.00
	26-end	0.00	0.55	0.00	0.58	0.00	0.00	0.38	0.00	0.00	0.40	0.00
Sep	1-5	0.00	0.38	0.00	0.40	0.00	0.00	0.04	0.00	0.00	0.03	0.00
	6-10	0.00	0.35	0.00	0.37	0.00	0.00	0.32	0.00	0.00	0.19	0.00
	11-15	0.00	0.25	0.00	0.27	0.00	0.00	0.34	0.00	0.00	0.41	0.00
	16-20	0.00	0.21	0.00	0.22	0.00	0.00	0.16	0.00	0.00	0.25	0.00
	21-25	0.00	0.37	0.00	0.37	0.00	0.00	0.34	0.00	0.00	0.02	0.00
	26-end	0.00	0.54	0.00	0.54	0.00	0.00	0.28	0.00	0.00	0.18	0.00
Oct	1-5	0.00	0.24	0.00	0.24	0.00	0.00	0.22	0.00	0.00	0.22	0.00
	6-10	0.00	0.51	0.00	0.50	0.00	0.00	0.55	0.00	0.00	0.41	0.00
	11-15	0.00	0.10	0.00	0.08	0.00	0.00	0.46	0.00	0.00	0.40	0.00
	16-20	0.00	0.68	0.00	0.66	0.00	0.00	0.50	0.00	0.00	0.32	0.00
	21-25	0.00	0.41	0.00	0.40	0.00	0.00	0.28	0.00	0.00	0.23	0.00
	26-end	0.00	0.43	0.00	0.42	0.00	0.00	0.64	0.00	0.00	0.64	0.00
Nov	1-5	0.00	0.67	0.00	0.64	0.00	0.00	0.86	0.00	0.00	0.82	0.00
	6-10	0.00	0.63	0.00	0.57	0.00	0.00	0.78	0.00	0.00	0.75	0.00
	11-15	0.00	0.54	0.00	0.45	0.00	0.00	0.71	0.00	0.00	0.70	0.00
	16-20	0.00	0.49	0.00	0.36	0.00	0.00	0.64	0.00	0.00	0.65	0.00
	21-25	0.00	0.40	0.00	0.26	0.00	0.00	0.54	0.00	0.00	0.54	0.00
	26-end	0.00	0.32	0.24	0.16	0.00	0.00	0.42	0.00	0.00	0.42	0.00
Dec	1-5	0.00	0.20	0.57	0.09	0.00	0.00	0.23	0.00	0.00	0.25	0.00
	6-10	0.00	0.07	0.96	0.00	0.00	0.00	0.08	0.00	0.00	0.08	0.00
	11-15	0.00	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	16-20	0.00	0.00	1.58	0.00	0.11	0.00	0.00	0.12	0.00	0.00	0.12
	21-25	0.00	0.00	1.71	0.00	0.17	0.00	0.00	0.17	0.00	0.00	0.18
	26-end	0.00	0.00	1.60	0.00	0.24	0.00	0.00	0.25	0.00	0.00	0.25
Average		0.25	0.26	0.34	0.23	0.11	0.26	0.27	0.11	0.30	0.27	0.11
Max		1.66	0.95	1.71	0.78	0.78	1.71	1.01	0.84	1.71	1.15	0.84

Table D2.3-11 Irrigation Water Requirement for Water Balance Study (2nd maximum 5-day requirement in the month)

River basin	At or Ad	Crop	Unit	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Battamban	Transplant 0.17	Early paddy	l/sec/ha				0.20	1.40	0.89	0.92	0.40				
		Medium paddy	l/sec/ha						0.39	0.83	0.60	0.48	0.57	0.50	
		Upland crops	l/sec/ha	0.40	0.51	0.09									0.11
	Direct sown 0.83	Paddy Direct	l/sec/ha					0.11	0.26	0.85	0.63	0.67	0.75	0.64	
		Dry paddy	l/sec/ha	1.17	1.16	0.82									1.44
		Upland crops	l/sec/ha	0.40	0.51	0.09									0.11
	Medium wet season paddy=		l/sec/ha						0.28	0.85	0.62	0.64	0.72	0.62	
	At × Paddy2+Ad × Paddy3		m3/month							2,268					
	Dry season paddy+upland crops=		l/sec/ha	0.72	0.78										0.66
	At × Upland1+Ad × (Paddy4+Upland2) ÷ 2		m3/month		1,886										
	Early paddy		m3/month					3,750							
River basin	At or Ad	Crop	Unit	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Moung Russey	Transplant 0.31	Early paddy	l/sec/ha				0.20	1.33	0.70	0.63	0.31				
		Medium paddy	l/sec/ha						0.36	0.74	0.56	0.38	0.39	0.40	
		Upland crops	l/sec/ha	0.42	0.53	0.05									0.13
	Direct sown 0.69	Paddy Direct	l/sec/ha					0.09	0.49	0.68	0.65	0.24	0.02	0.32	
		Dry paddy	l/sec/ha	1.02	1.00	0.72									1.38
		Upland crops	l/sec/ha	0.42	0.53	0.05									0.13
	Medium wet season paddy=		l/sec/ha						0.45	0.70	0.62	0.28	0.13	0.34	
	At × Paddy2+Ad × Paddy3		m3/month							1,871					
	Dry season paddy+upland crops=		l/sec/ha	0.63	0.69										0.56
	At × Upland1+Ad × (Paddy4+Upland2) ÷ 2		m3/month		1,674										
	Early paddy		m3/month					3,562							
River basin	At or Ad	Crop	Unit	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Pursat	Transplant 0.77	Early paddy	l/sec/ha				0.19	1.25	0.61	0.56	0.19				
		Medium paddy	l/sec/ha						0.35	0.68	0.40	0.23	0.33	0.35	
		Upland crops	l/sec/ha	0.41	0.51	0.08									0.11
	Direct sown 0.23	Paddy Direct	l/sec/ha					0.09	0.43	0.55	0.46	0.32	0.40	0.45	
		Dry paddy	l/sec/ha	0.94	0.88	0.62									1.27
		Upland crops	l/sec/ha	0.41	0.51	0.08									0.11
	Medium wet season paddy=		l/sec/ha						0.37	0.65	0.41	0.25	0.35	0.37	
	At × Paddy2+Ad × Paddy3		m3/month							1,741					
	Dry season paddy+upland crops=		l/sec/ha	0.47	0.55										0.24
	At × Upland1+Ad × (Paddy4+Upland2) ÷ 2		m3/month		1,337										
	Early paddy		m3/month					3,348							
River basin	At or Ad	Crop	Unit	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Boribo g, h, i, j	Transplant 1.00	Early paddy	l/sec/ha				0.20	1.24	0.66	0.63	0.24				
		Medium paddy	l/sec/ha						0.34	0.66	0.47	0.22	0.35	0.43	
		Upland crops	l/sec/ha	0.41	0.55	0.10									0.11
	Direct sown -	Paddy Direct	l/sec/ha												
		Dry paddy	l/sec/ha												
		Upland crops	l/sec/ha												
	Medium wet season paddy=		l/sec/ha						0.34	0.66	0.47	0.22	0.35	0.43	
	At × Paddy2+Ad × Paddy3		m3/month							1,768					
	Dry season paddy+upland crops=		l/sec/ha	0.41	0.55										0.12
	At × Upland1+Ad × (Paddy4+Upland2) ÷ 2		m3/month		1,331										
	Early paddy		m3/month					3,321							
River basin	At or Ad	Crop	Unit	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Boribo k	Transplant 1.00	Early paddy	l/sec/ha				0.20	1.35	0.86	0.71	0.28				
		Medium paddy	l/sec/ha						0.34	0.77	0.53	0.16	0.27	0.41	
		Upland crops	l/sec/ha	0.40	0.55	0.11									0.12
	Direct sown -	Paddy Direct	l/sec/ha												
		Dry paddy	l/sec/ha												
		Upland crops	l/sec/ha												
	Medium wet season paddy=		l/sec/ha						0.34	0.77	0.53	0.16	0.27	0.41	
	At × Paddy2+Ad × Paddy3		m3/month							2,062					
	Dry season paddy+upland crops=		l/sec/ha	0.40	0.55										0.12
	At × Upland1+Ad × (Paddy4+Upland2) ÷ 2		m3/month		1,331										
	Early paddy		m3/month					3,616							

Table D5.2-1 Present Condition of Proposed Projects

River basin	PDOWRAM concerned	Proroposed project	Inventory existing area (ha)	Existing irrigation systems (No.)	Present condition								Type of irrigation						Proposed irrigation area (Ha)
					Fully functioning		Partly functioning		Mal functioning		Not functioning		Gravity		Pump		Gravity/ pump		
Battambang	Battambang	Kong Hort Rehabilitation Phase-1	7,035	3	-	-	2	35	-	-	1	7,000	1	7,000	1	20	1	15	10,040
	Battambang	Kong Hort Rehabilitation Phase-2	2,140	30	4	965	17	704	-	-	9	471	18	1,492	7	368	5	280	2,733
	Battambang	Slat On rehabilitation	7,995	17	7	1,975	8	5,570	-	-	2	450	5	95	1	450	11	7,450	10,400
	Battambang	Ratanak-Bttambang Water Harvesting Rehab.	308	13	1	10	3	78	-	-	9	220	6	93	4	105	3	110	580
		Sub-total	**17,478**	**63**	**12**	**2,950**	**30**	**6,387**	**-**	**-**	**21**	**8,141**	**30**	**8,680**	**13**	**943**	**20**	**7,855**	**23,753**
Moung Russey	Battambang	Bassac Reservoir Rehabilitation	-	1					1	3,500			1	3,500					3,500
	Battambang	Ream Kon Rehabilitation	200	1			1	200					1	200					2,300
	Battambang	Por Canal Rehabilitation	400	1			1	400					1	400					1,200
	Battambang	Nikom Le/Dai Ta Chan Rehabilitation	50	2			1	no data	1	50			1	no data			1	50	600
		Sub-total	**650**	**5**	**-**	**-**	**3**	**600**	**2**	**3,550**	**-**	**-**	**4**	**4,100**	**-**	**-**	**1**	**50**	**7,600**
Pursat	Pursat	Beoun Preah Ponley Rehabilitation	7,703	2			1	2,470	1	5,233			1						8,500
	Pursat	Damnak Ampil Extension	7,700	1			1	7,700									1	7,700	8,000
	Pursat	Wat Loung Rehabilitation	1,800	3	1	560	1	100	1	1,140			2	660			1	1,140	3,940
	Pursat	Wat Chre Rehabilitation	1,000	1					1	1,000			1	1,000					1,000
	Pursat	Anlong Knouchi, Wat Leal, Kosh Khsach Water Harv. & Reces. Rice	2,514	3			2	1,749	1	765							2	2,514	2,602
		Sub-total	**20,717**	**10**	**1**	**560**	**5**	**12,019**	**4**	**8,138**	**-**	**-**	**4**	**1,660**	**-**		**4**	**11,354**	**24,042**
Boribo	Kg. Chhnang	Lum Hach Rehabilitation	2,000	30	No data								No data						3,700
	Kg. Chhnang	7th January Canal Rehabilitation	1,000	No. data	No data								No data						2,000
	Kg. Chhnang	Khvet Rehabilitation	250	1					1	250							1	250	250
	Kg. Chhnang	Ta Ram Rehabilitation	180	1					1	180			1	180					180
	Kg. Chhnang	Chak Teum, Trapeang Khlong, Don Pov Rehab.	980	3					3	980			2	750			1	230	980
	Kg. Chhnang	Teuk Laak and Trapeang Thlan Rehabilitation	230	2					2	230			2	230					230
	Kg. Chhnang	Toul Champey Rehabilitation	360	1					1	360			1	360					360
	Kg. Chhnang	Chan Keak Rehabilitation	110	1			1	110											110
		Sub-total	**5,110**	**39**	**-**	**-**	**1**	**110**	**8**	**2,000**	**-**	**-**	**6**	**1,520**	**-**	**-**	**2**	**480**	**7,810**
		Total	**43,955**	**117**	**13**	**3,510**	**39**	**19,116**	**14**	**13,688**	**21**	**8,141**	**44**	**15,960**	**13**	**943**	**27**	19,739	**63,205**

Figures

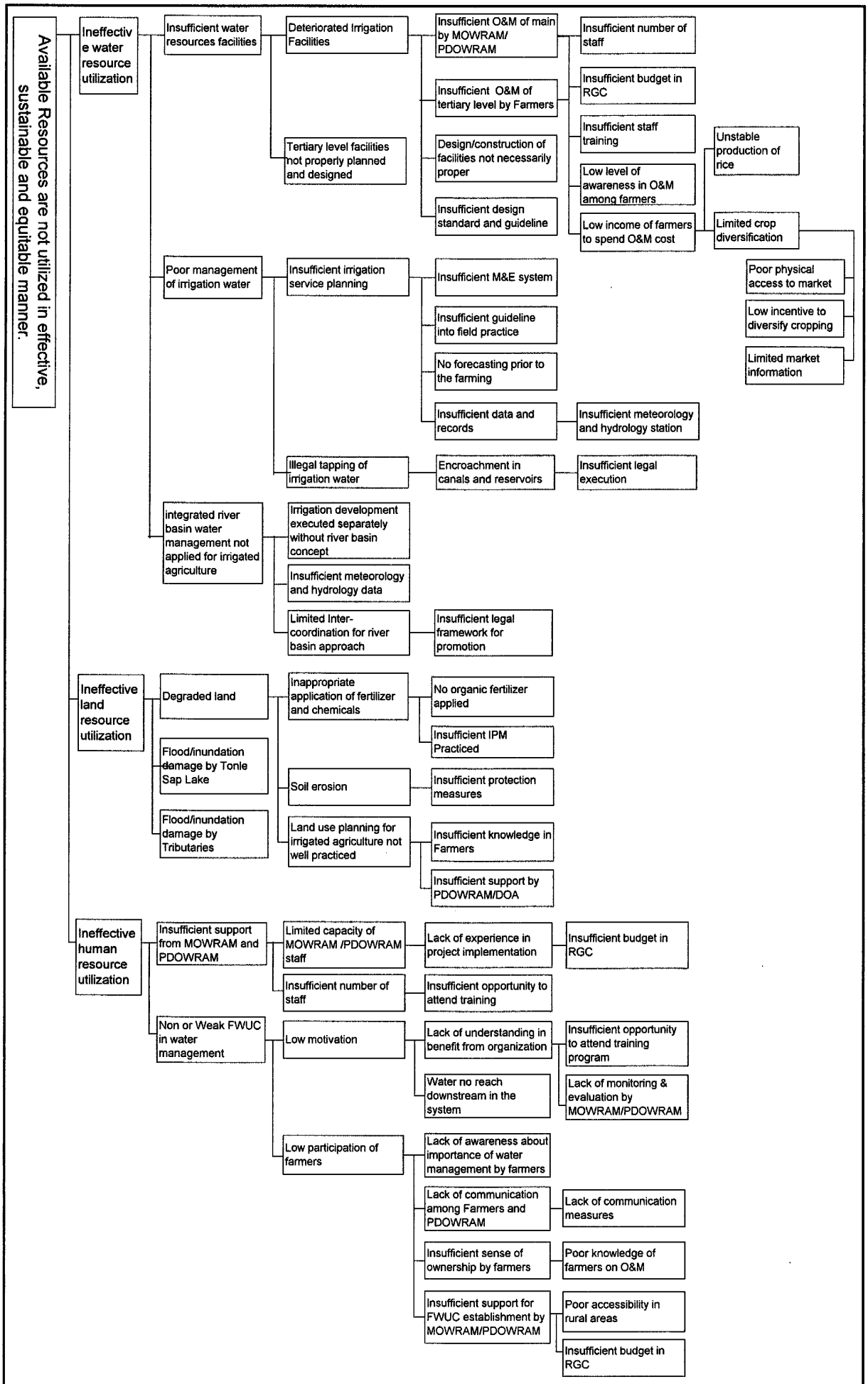


Figure D3.1.1 Problem Tree of Irrigation adn Drainage in Four river Basins

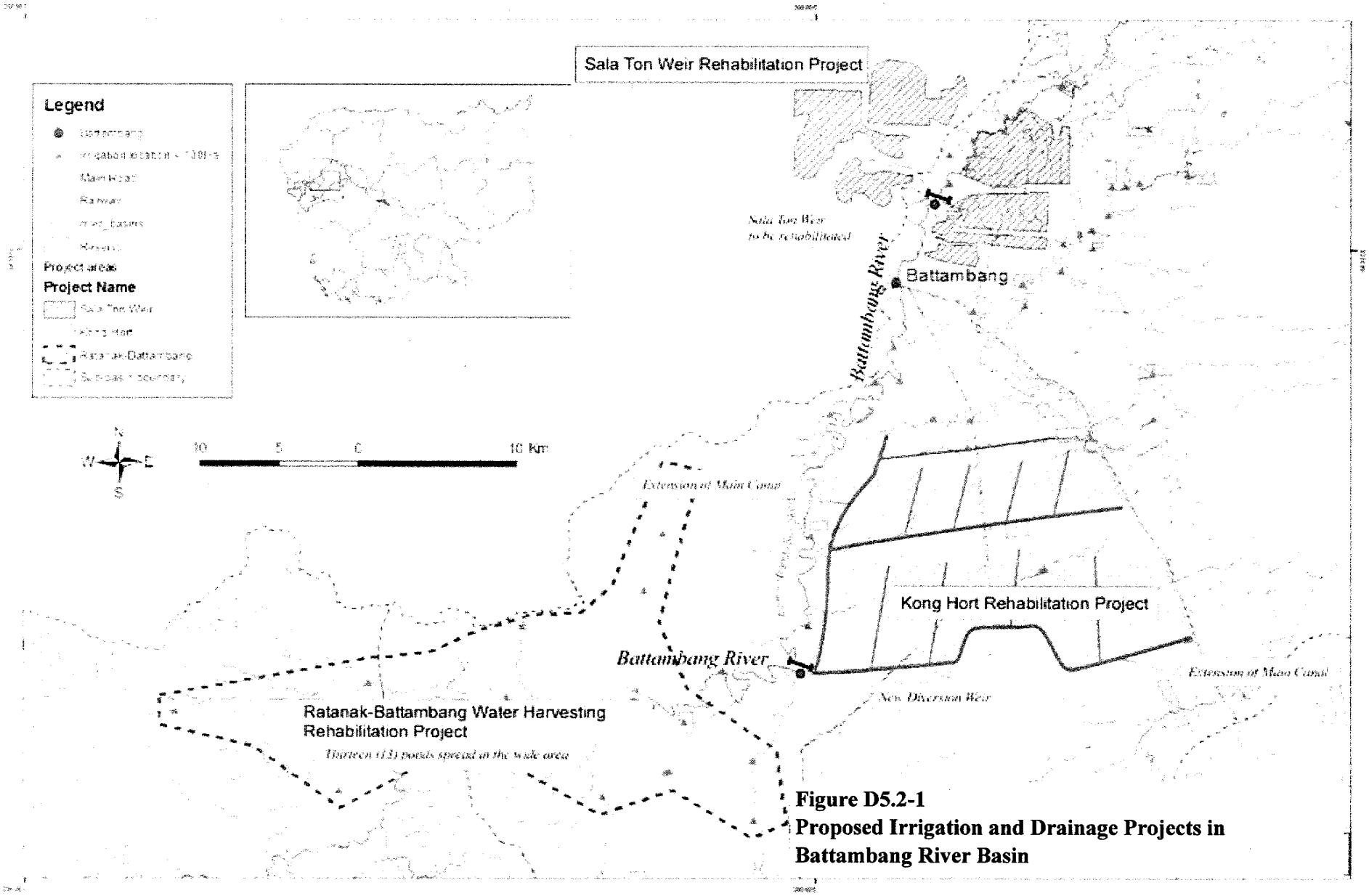


Figure D5.2-1
Proposed Irrigation and Drainage Projects in Battambang River Basin

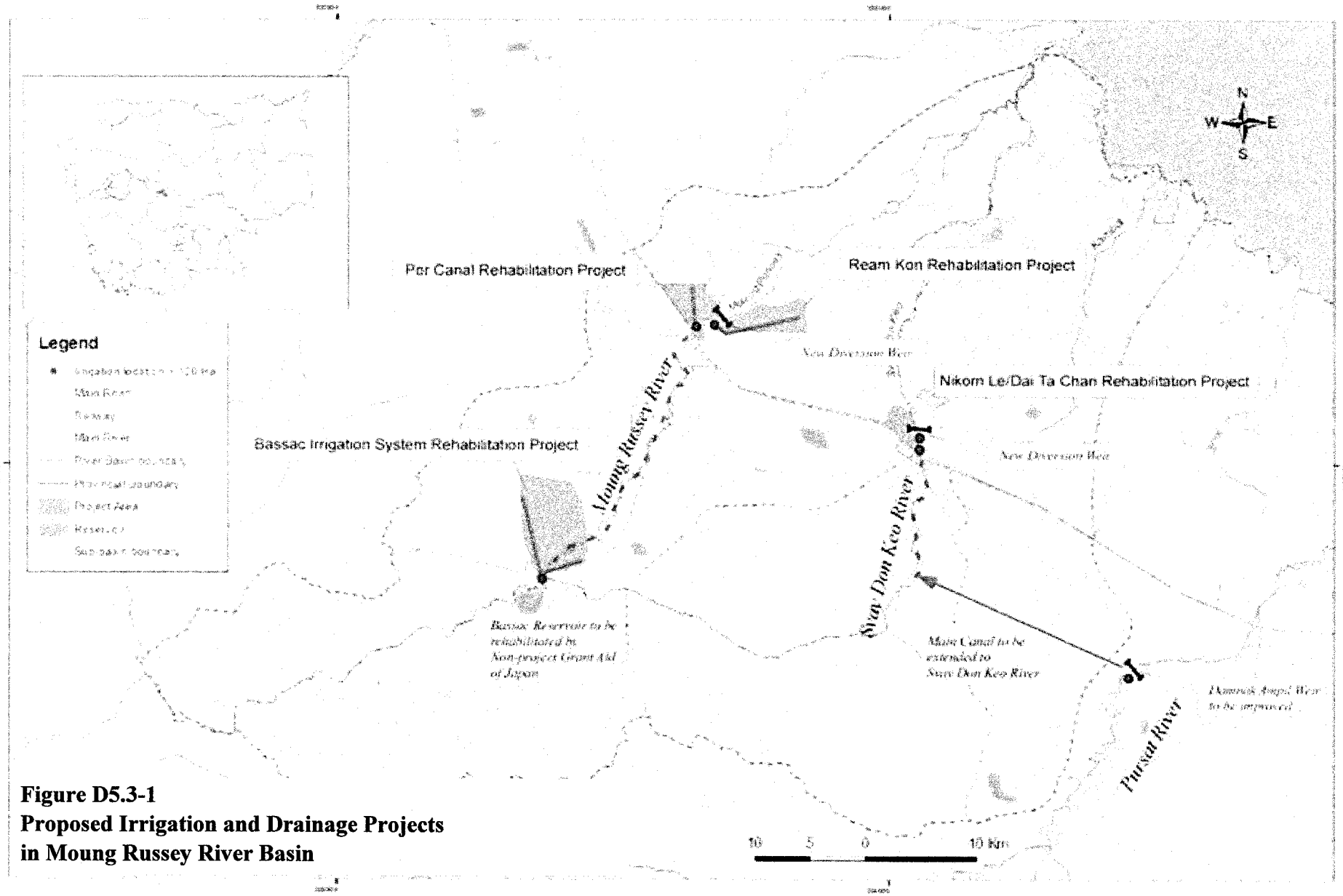


Figure D5.3-1
Proposed Irrigation and Drainage Projects in Moung Russey River Basin

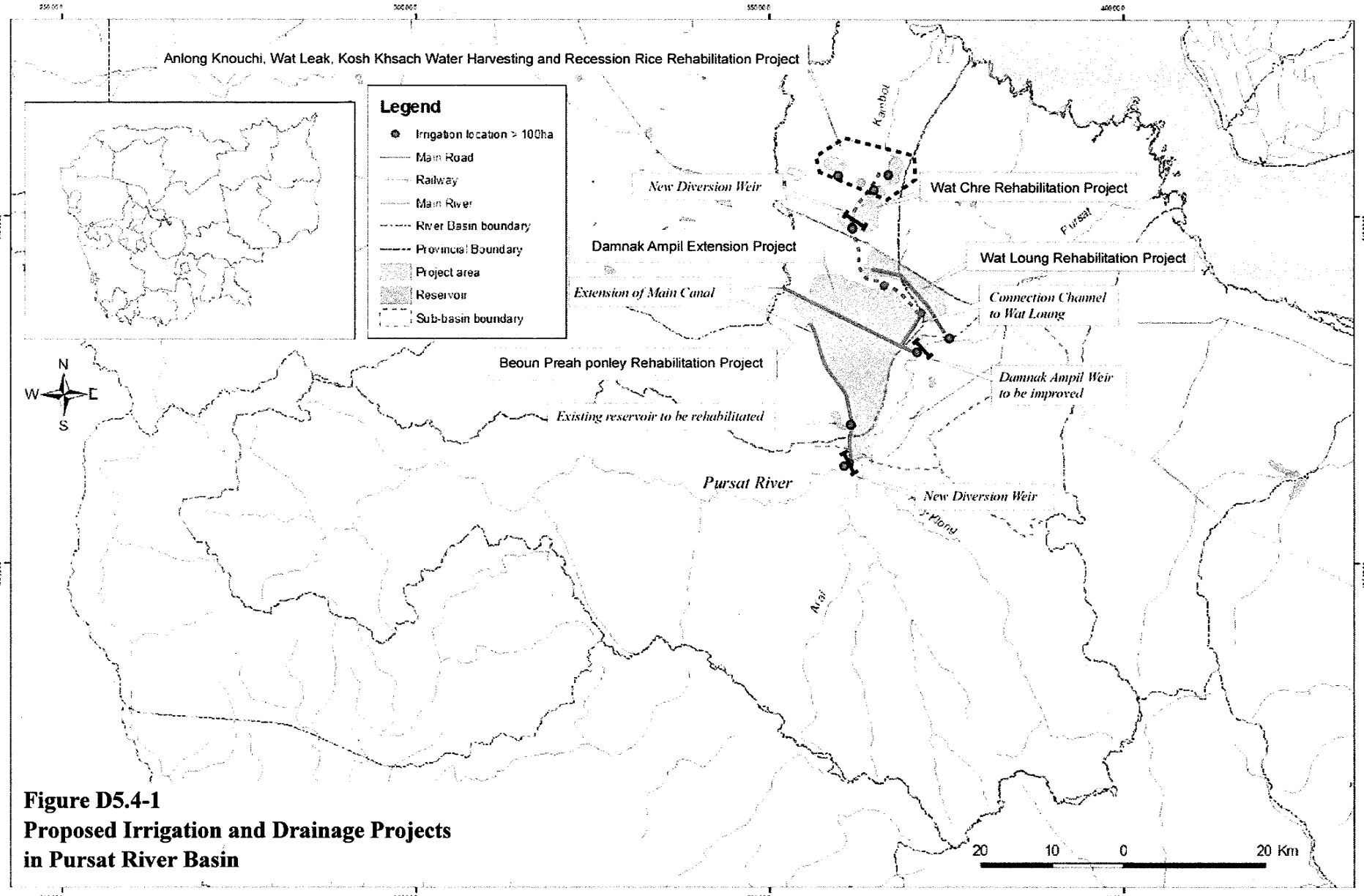


Figure D5.4-1
Proposed Irrigation and Drainage Projects in Pursat River Basin

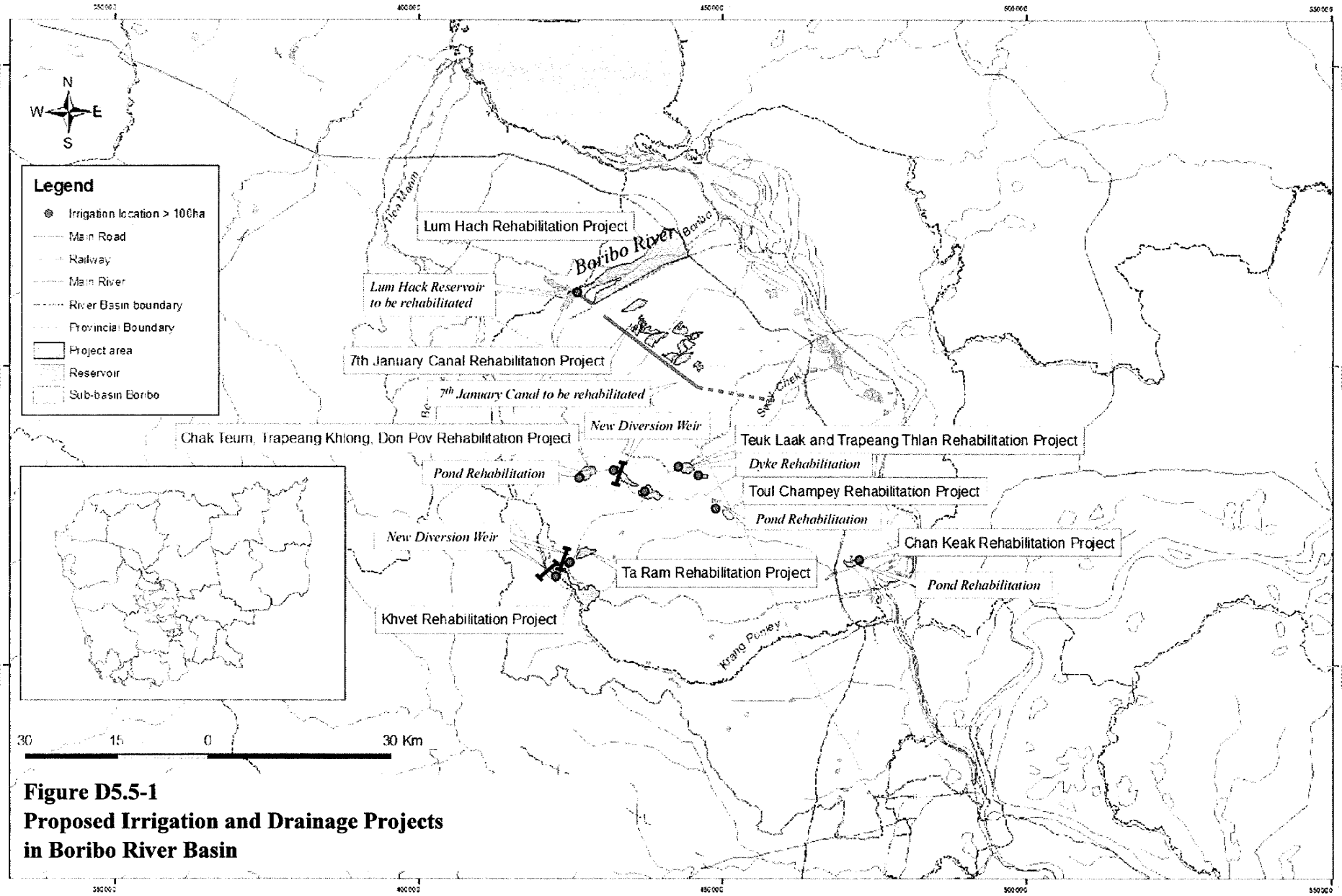


Figure D5.5-1
Proposed Irrigation and Drainage Projects in Boribo River Basin

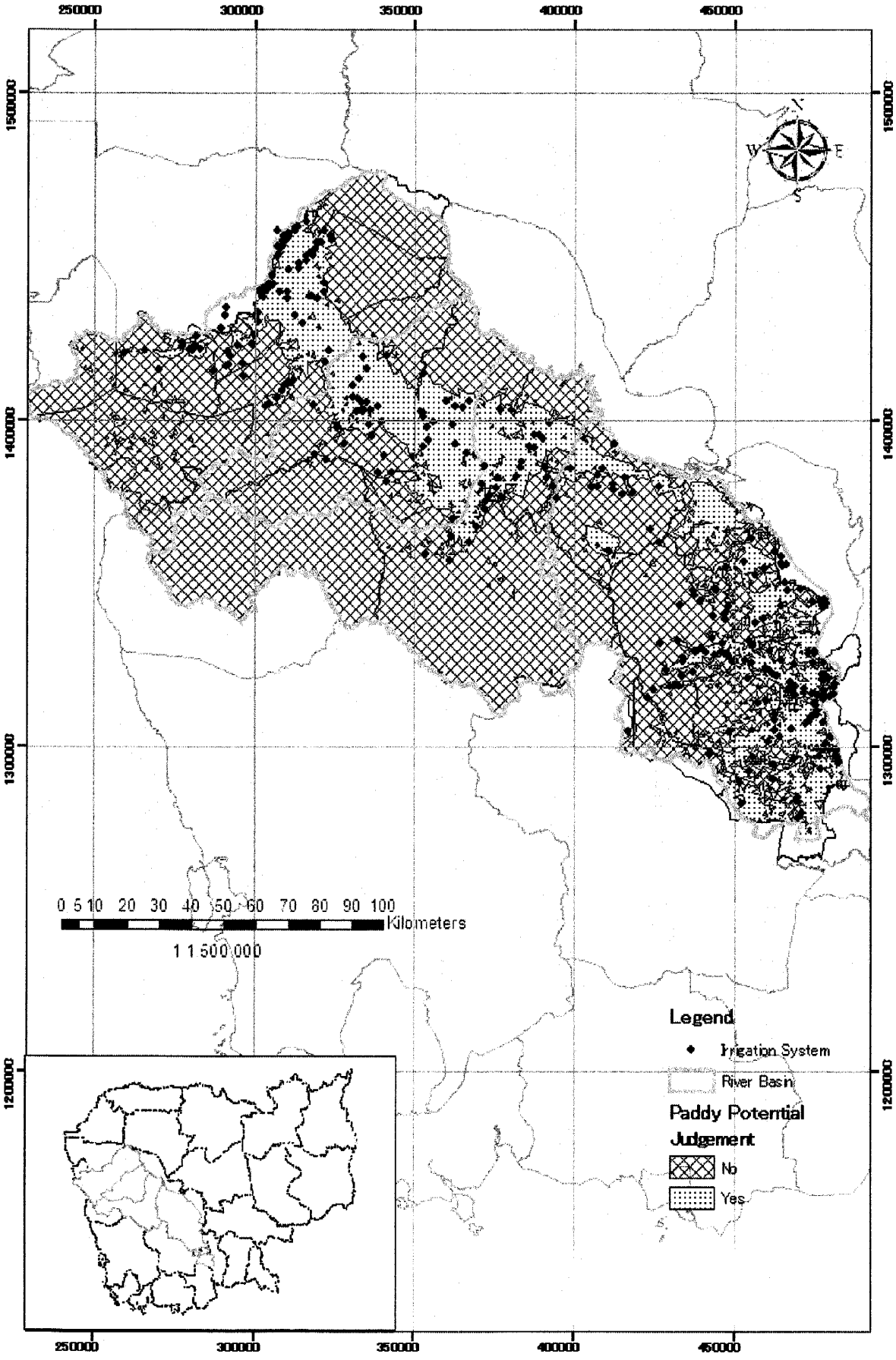


Figure D5.5-2 Paddy Field Development Potential