

TABLES

Table 2.1.1 National Socio-economic Indicators

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. Demography										
1) Estimated Mid. Year Population*(1,000)	16,825	16,993	17,247	17,405	17,619	17,865	18,112	18,315	18,552	18,774
2) Population Growth Rate*1 (%)	1.4	1.0	1.5	0.9	1.2	1.4	1.4	1.1	1.3	1.2
3) Land Area*2 (excluding large inland waters)(km ²)	62,705	62,705	62,705	62,705	62,705	62,705	62,705	62,705	62,705	62,705
4) Population Density*1 (Persons/km ²)	268	271	275	278	281	285	289	292	296	299
5) Labour Force*3										
- Total Labour Force (1,000)	*	6,001	5,877	5,808	6,032	6,079	6,106	6,245	6,236	6,693
- Employment (1,000)	*	5,047	5,015	4,962	5,201	5,281	5,357	5,535	5,594	6,084
- Unemployment (1,000)	*	964	862	846	831	797	749	709	642	609
- Unemployment Rate (%)	*	15.9	14.7	14.6	13.8	13.1	12.3	11.4	10.3	9.1
2. National Economy*1										
1) Gross Domestic Product (GDP)										
- GDP at Current Market (Rs.billion)	251.9	321.8	373.3	425.3	499.6	579.1	667.8	768.9	890.3	####
- GDP at 1982 Constant*4(Rs.billion)	121.7	129.2	135.2	141.0	150.8	159.3	168.0	174.3	185.3	194.1
- GDP at 1996 Constant*4(Rs.billion)								695.9	739.7	774.8
- Growth Rate (GDP) (Overall) (%)	2.3	6.2	4.6	4.3	6.9	5.6	5.5	3.8	6.3	4.7
(Agriculture, Forestry & Fishing) (%)	-1.1	8.5	1.9	-1.6	4.9	3.3	3.3	-4.6	3.0	2.5
- Per Capita GDP at Current Pric(Rs.)	15,000	18,900	21,600	24,400	28,400	32,400	36,900	42,000	48,000	54,000
(US\$)	420	470	520	560	590	660	720	760	810	840
2) GDP by Industry at Current Factor Cost Prices										
- Agriculture, Forestry & Fishing (%)	25.6	26.3	26.8	25.9	24.6	23.8	23.0	22.4	21.9	21.1
- Mining and Quarrying (%)	2.6	2.4	2.1	1.7	1.9	2.0	1.9	2.0	2.1	1.9
- Manufacturing (%)	15.3	14.9	14.8	15.3	15.2	15.4	15.7	16.2	16.4	16.5
- Construction (%)	7.6	7.4	7.3	7.4	7.2	7.3	7.4	6.9	7.0	7.6
- Electricity, Gas, Water & Sanit (%)	1.2	1.3	1.4	1.2	1.3	1.5	1.5	1.3	1.4	1.5
- Transport, Storage & Communi (%)	10.1	9.9	9.7	10.0	10.0	10.0	9.9	10.6	10.7	11.1
- Wholesale and Retail Trade (%)	20.4	21.3	21.2	21.7	22.0	22.0	22.0	22.3	22.0	21.5
- Banking, Insurance & Real Est (r) (%)	4.6	4.6	4.9	5.4	6.1	6.8	7.2	7.1	7.4	7.6
- Ownership of Dwellings (%)	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.0	2.0	1.9
- Public Administration & Defen (%)	6.0	5.5	5.2	4.7	5.0	4.8	5.2	5.1	5.1	5.3
- Services (%)	3.9	4.1	4.2	4.4	4.3	4.2	4.0	4.0	4.0	4.0
3) Agriculture GDP at Current Factor Cost Price										
- Agriculture (%)	83.5	85.2	83.2	81.1	80.9	79.2	77.5	78.5	79.1	79.6
Tea (%)	11.5	11.7	8.4	4.9	6.1	5.5	5.3	6.6	7.2	7.5
Rubber (%)	2.5	1.9	1.4	1.7	1.9	2.6	2.9	2.6	1.8	1.3
Coconut (%)	8.4	6.3	7.4	9.3	8.7	7.4	6.8	8.2	8.5	8.1
Paddy (%)	16.2	19.7	18.9	19.6	19.3	17.1	15.7	12.7	13.9	13.9
Others (%)	44.9	45.5	47.1	45.5	44.9	46.7	46.9	48.4	47.6	48.8
- Forestry (%)	7.8	7.3	8.1	8.4	8.4	9.2	10.4	9.4	8.7	8.1
- Fishing (%)	8.7	7.6	8.7	10.6	10.7	11.6	12.1	12.0	12.2	12.3
4) Colombo Consumers' Price (1952=100)										
830.2	1008.6	1131.5	1260.4	1408.4	1527.4	1644.6	1906.7	2089.1	2284.9	
Annual Change (%)	11.6	21.5	12.2	11.4	11.7	8.4	7.7	15.9	9.6	9.4
5) Wholesale Price Index (1974 = 100)										
532.9	651.1	710.8	773.0	831.8	873.4	950.3	1145.0	1224.3	1298.7	
Annual Change (%)	9.0	22.2	9.2	8.8	7.6	5.0	8.8	20.5	6.9	6.1
6) Average Exchange Rates (US \$1.0(Rs.))										
36.05	40.06	41.37	43.83	48.25	49.42	51.25	55.27	58.99	64.59	
7) Balance of Payments*5 (Rs. billion)										
a) Merchandise										
-24.05	-28.15	-41.25	-45.78	-55.37	-77.03	-77.11	-74.28	-71.84	-73.94	
Exports (f.o.b.)	56.18	79.48	84.38	107.86	138.18	158.55	195.09	226.80	274.19	306.33
Imports (c.i.f.)	80.23	107.63	125.63	153.64	193.55	235.58	272.20	301.08	346.03	380.27
b) Services (net)										
0.12	2.77	3.65	6.39	7.85	8.88	7.80	5.81	9.39	9.20	
c) Income (net)										
-5.73	-6.68	-7.42	-7.82	-6.03	-8.36	-7.03	-11.23	-9.76	-13.47	
d) Goods and Services (a + b + c)										
-29.66	-32.06	-45.02	-47.21	-53.55	-76.51	-76.34	-79.70	-72.21	-78.21	
e) Private Transfers (net)										
11.74	14.40	16.49	20.13	26.89	30.77	34.59	39.23	46.49	54.84	
f) Official Transfers (net)										
2.36	2.50	2.94	2.81	2.71	2.89	3.11	2.71	2.63	3.49	
g) Current Account (d + e + f)										
-15.56	-15.16	-25.59	-24.27	-23.95	-42.85	-38.64	-37.76	-23.09	-19.88	
h) Capital and Financial Account										
15.60	20.68	35.53	29.01	53.38	53.23	38.38	32.35	37.32	41.18	
i) Valuation Adjustments										
-0.11	0.75	0.24	1.56	-1.42	-1.38	6.39	4.21	-0.56	8.56	
j) Errors and Omissions										
-1.29	-2.10	2.73	3.40	3.22	4.70	1.68	1.21	2.17	-16.06	
k) Overall Balance (g + h + i + j)										
-1.36	4.17	12.91	9.70	31.23	13.70	7.81	0.01	15.84	13.80	

Sources: *1 Annual Report 1996 and 1998, Central Bank of Sri Lanka

*2 Statistical Abstract of the Democratic Socialist Republic of Sri Lanka 1994, Dept. of Census and Statistics.

*3 1989-96: Sri Lanka - Economic Progress of Independent, Central Bank of Sri Lanka, 1998.

1997-98: Annual Report 1998, Central Bank of Sri Lanka, April 1999.

*4 Factor cost prices

*5 Annual Report 1998, Central Bank of Sri Lanka, April 1999.

Table 3.9.1 Features of Agricultural Extension Agencies and Project Related Support Facilities

<i>Extension Agencies</i>	
Inter-Provincial Extension Units, DOA	For providing extension services for irrigation command areas of major schemes extending over plural provinces, the six Inter-Province Extension Units are established in the country. Within the Study area, the Unit is placed in Anuradhapura, which cover some 30,000 ha of irrigation command areas. The extension services of the same cover the command area of 5 major schemes under the Project, Rajangana, Nuwarawewa, Nachchaduwa, Thuruwila and Tissawewa Irrigation Schemes. The total irrigation command areas of those schemes are some 9,900 ha. The Unit has 2 segments, each staffed with 15 Agricultural Instructors (AIs) stationed at ASCs, and the field extension services are provided through the AIs.
Department of Agrarian Services (DAS)	The agricultural supporting services of DAS including farm inputs supply, establishing & strengthening FOs, establishing & supporting Agrarian Service Committee, promotion of paddy seed production and cultivation loans through Farmer Bank (pilot operation) are provided through the ASCs established at divisional level, in total of 542 throughout the country. The ASCs are to be established as a nucleus place for providing support services to FOs and individual farmers. The Study area is covered by four district offices of DAS, namely, Anuradhapura, Kurunegala, Puttalam and Matale District Offices. The Divisional Officer (DO) of DAS is the head of ASC and managerial role of ASC in practical meaning is taken by the DO. He also serves as Secretary to the Agrarian Service Committee. Under DO/ASC, there are Farmer Animators (FAs) posted to each GN Divisions. FAs are grass root level/village level farmers supporting agents and expected to take roles of village extension workers in the future. The recent policy release of MOAL revealed that all the FAs will be vested with permanent position as Agricultural Development and Productivity Assistant.
Provincial Department of Agriculture (PDOA)	The PDOAs of NCP, CP and NWP are the institutions responsible for the area specific extension services for food and horticultural crops sectors in the provinces, except for the extension services in the command areas of major irrigation schemes covered by the DOA's Inter-provincial Extension Units. Therefore, the services of the PDOA NCP cover only Anuradhapura District and the extension services in Polonnaruwa are provided by the Unit in Anuradhapura. The head of the department is Provincial Director of Agriculture. At District Offices, Deputy Directors of Agriculture are posted as the head. At divisional level, the segment and/or divisional ADAs are placed at ASCs or D/S Secretary Offices. The divisional ADA provides guidance to and supervises AIs in his division. At village level, AIs, field extension agents, are stationed at the ASCs under the divisional or segment ADAs. The total numbers of AIs stationed in ASCs in NCP, CP and NWP are 40, 152 and 149, respectively.
Provincial Department of Animal Husbandry & Health (PDAPH)	The PDAPHs in NCP, CP and NWP are the institutions responsible for providing veterinary and extension services for livestock sector in the provinces. The head of the department is Provincial Director of Livestock (PDL). At district level, District Offices of PDAPH are established in Anuradhapura and Polonnaruwa of NCP, Kandy, Matale and Nuwara Eliya of CP, and Kurunegala and Puttalam of NWP. At divisional level, there are 19 and 6 Veterinary Surgeon Divisions (VSDs) respectively in Anuradhapura and Polonnaruwa District, 8 in Matale District, and 16 and 9 VSDs respectively in Kurunegala and Puttalam District. At each VSD, one Veterinary Surgeon (VS) is posted and provides veterinary services in his division. VSs are supported by the Senior Livestock Instructors (SLDIs) and Livestock Instructors (LDIs) stationed at the VSDs. LDIs are field level extension agents of the PDAPHs. The total numbers of LDIs in the VSDs in NCP, CP and NWP are 63, 92 and 118, respectively.
Other Government Institutions Involved in Agricultural Extension	Other major government institutions involved in agricultural extension services in the Study area include: 1) Department of Export Agriculture, 2) National Aqua-culture Development Authority (NAQDA), 3) Coconut Cultivation Board (CCB), 4) Cashew Corporation (CaC) and 5) Agricultural Development Authority (ADA). The extension activities of these institutions in the Study area are rather limited and their major extension services are provided through field activities of village level field officers. The activities of the Fisheries Unit of PCs is limited.
<i>Project Related Agricultural Support Facilities</i>	
Agrarian Service Center (ASC)	The ASC is established with offices for divisional staff of DAS, Agrarian Services Committee and for field officers of various institutions involved in agricultural development. It is to be administered by the Agrarian Services Committee which composed of the representatives of 10 FOs and 5 agricultural officers. The Centers have a dual function, firstly as retail outlets of farm inputs including seeds, planting materials, fertilizers, agro-chemicals, farm tools and tractor hiring services. Secondly, the Centers are to be established as local headquarters for all divisional level staff engaged in agricultural development work. The presence of 5 – 6 officers with different types of training and expertise under one roof makes it convenient for farmers to deal with their requirements. The number of ASCs in the Study area is 24 in Anuradhapura and 34 in Kurunegala
ISTI, PDOA, NCP	The In-service Training Institute (ISTI) established in 1982 at Maha Illuppallama, NCP is only a training institution under the PDOAs in the Study area. The center is staffed with 1 ADA and 3 SMS, 1 training officer and 1 Agricultural Officer and has 3 vacancy posts of SMS. It has a dormitory to accommodate 60 participants. In 1998, the Center conducted 87 training courses for staff and farmers and the total number of trainees was 2,561. The Center was renovated with the provision of SAEP, but the provision of audio-visual and printing equipment and renovation of a dormitory is needed for the efficient implementation of training and preparation of materials.
Provincial Seed Farms, PDOA, NWP	Two Provincial Seed Farms at Wariyapola and Galgamuwa are operated by the PDOA, NWP. The Farm at Galgamuwa has 80 acres of land and is for multiplication of OFC seed and fruit planting materials, mainly for government program needs. It is poorly established and its target production of some 55,000 planting materials in 1999 will not be met.
IFTC/PDAPH, NWP	The Integrated Farmer Training Center (IFTC) established in 1994 at Nikaweratiya, NWP is the only training institution under PDAPHs in the Study area. The center is staffed with Farm Manager, 1 Training Officer and 1 assistant. It has a classroom to accommodate 50 participants and demonstration farm of 40 ha, where buffalo, goat, milking cow and poultry husbandry and integrated farming system are demonstrated. Training activities in 1998 covered some 2,900 trainees. The Center is poorly equipped without dormitory and transportation facilities.

Table 3.9.2 Extension Management System of DOA and PDOAs in the Study Area

Agency		Provincial Office	District Office	Divisional Office	Field Level
Inter-Provincial Extension Unit (DOA)	Staff		- Head of Unit, ADA - Technical Staff	- AO; Head of Segment Office - AIs at Segment Office	- AIs at ASC
	Management System		- Monthly meeting of all staff of Unit - Progress monitoring & guidance	- Fortnightly meeting of all segment staff including AIs - Progress monitoring & guidance	
	Formulation of Seasonal Extension Programs		- Finalize seasonal work programs of Unit & propose to DOA	- Discuss work program prepared by AIs in fortnightly meeting	- Preparation of proposal based on local specific conditions and needs - Farmer Animator may provide assistance in site selection & farmer grouping
	Implementation of Extension Programs	Not established	- Field supervision & guidance on programs carried out by AIs - Provide guidance to AOs/AIs at monthly meeting - Progress monitoring	- Field supervision & guidance on programs carried out by AIs - Provide guidance to AOs/AIs at fortnightly meeting - Progress monitoring & reporting	- Implementation of field extension programs mostly with small farmer groups - Provide training/guidance to participants - Periodical visit to program sites - Progress reporting
	Field Extension		- Field supervision & guidance to AIs & participants (limited)	- Field supervision & guidance to AIs & participants	- Visits to service areas not covered by extension programs (limited)
	In-service Training System of AIs				- Pre-seasonal training of AIs at ISTI (3-5 days) - Guidance at periodical meeting - In-service training on special subjects
PDOA	Staff	- Provincial Director, Head - Head of Division - Technical Staff	- Head of District Office, DDA - Technical Staff	- Segment ADA (NWP) - Divisional ADA (NCP & NWP) - AIs at Div. Office	- AIs at ASC
	Management System	- Monthly meeting of all staff (NCP) - Monthly meeting of all senior staff (NWP)	- Monthly meeting of all PDOA staff (NCP) - Monthly meeting of all district staff (NWP)	- Fortnightly meeting of all division staff including AIs (NCP) - Weekly meeting of all division staff including AIs (NWP)	
	Formulation of Seasonal Extension Programs	- Discuss work program prepared by District Office in monthly meeting - Finalize seasonal work programs	- Discuss work program prepared by Div. Office in monthly meeting - Prepare district level work program	- Discuss work program prepared by AIs at fortnightly meeting (NCP) - Discuss work program prepared by AIs at weekly meeting (NWP)	- Preparation of proposal based on local specific conditions and needs - Farmer Animator may provide assistance in site selection & farmer grouping
	Implementation of Extension Programs	- Supervision & guidance on programs carried out by AIs - Provide guidance to AOs/AIs at monthly meeting - Progress monitoring	- Supervision & guidance on programs carried out by AIs - Provide guidance to AIs at monthly meeting - Progress monitoring & reporting	- Field supervision & guidance on programs carried out by AIs - Provide guidance to AIs at fortnightly meeting - Progress monitoring & reporting	- Implementation of field extension programs mostly with small farmer groups - Provide training/guidance to participants - Periodical visit to program sites
	Field Extension	- Field supervision & guidance to AIs & participants (limited)	- Field supervision & guidance to AIs & participants (limited)	- Field supervision & guidance to AIs & participants	- Visits to service areas not covered by extension programs (limited)
	In-service Training System of AIs				- Pre-seasonal training of AIs at ISTI (3-5 days) - Guidance at periodical meeting - In-service training on special subjects

Table 3.9.3 Major Agricultural Supporting Programmes Implemented and Planned by IPEU and PDOAs

Agencies/Programs	Unit	Unit Program Costs (Rp.)	No. of Programs	Source of Funds 2/	Implemented No.	Program Components / Remarks
IPEU, Anuradhapura						
	<i>Year</i>	<i>1999 (Yala Season) 1/</i>			<i>1998</i>	
Large Scale (yaya) Paddy Demonstration	block	4,230	80	CG	150	20 farmers, 16 ha, fertilizer supply on revolving loan
Yield Maximization (paddy)	plot	3,080	31	CG	6	1 acre, organic manure supply, target 7.5 t/ha
Self Seed Production (paddy)	packet	10	1,000	CG	1,635	seed supply, 1 packet 2kg, training
Certified Seed Production (paddy)	ha	100	200	CG	193	seed supply, training
Chili Demonstration	plot	5,900	2	CG		supply seed & fertilizer
Onion Demonstration	block	64,500	1	CG		2 ha, seed, fertilizer & chemical supply
Onion Seed Production	unit	41,750	1	CG		construction of protected store
Maize Demonstration	block	25,750	3	CG	6	4 ha, seed, fertilizer & chemical supply
Vegetable Demonstration	plot	2,113	19	CG		seed, fertilizer & chemical supply
Variety Adaptability Trial	unit			CG	4	0.2 ha, paddy
PDOA, NCP						
	<i>Year</i>	<i>1999 (annual)</i>			<i>1997</i>	
Special Paddy Production Program	unit	138,000	53	CG		10 - 30ha; supply of seed & compost
Certified Seed Production Program	unit		12	PC		10 - 30ha; seed supply
Integrated Pest Management	unit	1,475	2	PRDP	10	10 - 30ha; supply of sprayer
Demonstration: Cropping System under Agro-wells	unit	10,000		-	14	1 - 1.5ha
Demonstration: Crop Diversification	unit	7,500	8	PC	10	Supply of seed & fertilizer
Demonstration: Mushroom Cultivation	unit	1,000	4	PC	2	Supply of inoculated medium
PDOA, NWP						
	<i>Year</i>	<i>1999 (annual)</i>			<i>1997</i>	
Demonstration under Gravity Irrigation, OFC	plot	7,500			91	250 m ² /plot, WRDP/ADB
Demonstration on Horticulture Development	plot	12,500	12	PC	8	0.5 - 1 acre, fruits & vegetables
Demonstration on Integrated Farming	plot	6,000	47	PC		0.5 - 1 acre
Demonstration on Crop Diversification	block	8,125	80	PC	93	5 - 10ha
Integrated Pest Management	block	2,500	30	PC		5 - 10ha
Demonstration: Paddy Yield Increase	plot	10,000	50	CG		0.4 ha
Demonstration: Crop Diversification	block	30,000	29	CG	5	4 ha
Paddy Trial	unit	6,000	5	CG		0.4 ha
Pre-seasonal Training (officer)	course	18,000	12	PC	12	officer, 30 participants x 2 - 3 days
Food Technology Training (officer)	course	12,000	5	CG	3	8 participants x 3 -5 days
IPM Training (officer)	course	15,000	1	CG	1	4 participants x 2 months
Other Training Programs (farmers)	course	16,500	6	PC	4	30 participants x 2.5 days
Training on Horticulture (farmers)	course	3,000	8	PC	5	60 participants x 1 day

1/: Programs in Yala season only

2/: CG --- Central government; PC --- Provincial Council, PRDP --- Participatory Rural Development Project, IFAD

Source: Office file, Inter-Provincial Extension Unit, Anuradhapura and PDOA, NCP & MWP

Table 3.9.4 Major On-going Rural Credit Schemes in the Study Area and Their Terms & Conditions

Credit	Major Lending Institution	Category of Borrowers	Purpose	Eligibility	Securities	Interest Rate per Annum	Maximum Loan Amount (Rs.)	Repayment Period	Area of Operation	Source of Funds	Incentives by CBSL	
											Credit Guarantee	Interest Subsidy
NCRCS	PB BC RDB	Farmers	Cultivation of paddy & OFC	- Customer of Bank & Agro-Identity Card holder - Not a defaulter (Land ownership certificate acceptable)	- Inter-se guarantee of two other farmers - Other security acceptable to Bank - If loan is less than Rs.5000 no security for new borrowers	12%	Depending on crops	8 months	Islandwide	Own fund	60%	10%
	PB BC RDB	FOs	On-lending to members; Cultivation of paddy & OFC	- Customer of Bank & Registered by AS & Others	- Fixed deposit >12.5% of loan - Other security acceptable	12%	Depending of financial status of FOs	8 months	Islandwide	Own fund	60%	10%
Mid-Country Perennial Crops Dev. Proj.	BC	Individual/Joint	Farm crop development Nursery Development Post-harvest & processing	- Recommendation of Proj. Feasible technically & viable financially & Contribute 20% of cost as equity & Not a defaulter	- Security documents under AS Act No.58 of 1979 - Inter-se guarantee of two other farmers - Other security acceptable to Bank	14%	Rs.1.5 million	Depending on programs	Matale, Kurunegala, Puttalam & Others	Own fund (ADB fund exhausted)		5%
SURATHURA	PB BC H.N.B 1/	Non Sumurudhi beneficiary	Small scale agricultural & industrial projects Small scale trading activities	- 18 - 50 years of age & Submit feasibility report - Monthly income below Rs. 3000.-	- No security required - Guarantee of 1 family member	10%	Rs.50,000: individual Rs.250,000: group of 5	3 years	Islandwide	Phase I CBSL Phase II Own fund		Phase II 10%
SASANA	PB BC RDB	Sumurudhi beneficiary	Self-employ by starting new enterprises	- Nominated by AGA	- No security required	10%	Rs. 10,000	3 years	Islandwide	Samudhi Dev. Fund		
SAVANA	PB BC	Sumurudhi beneficiary	Aimed to develop Samurdhi beneficiaries & their family members to become effective entrepreneurs	- Over 18 years of age - Not a defaulter - Should possess NIC or any other ID acceptable to Bank	- No security required	10%	Rs. 50,000 (min. Rs. 10,000.-)	6 to 24 months depending on loan	Islandwide except for NP & EP	Samurdhi Dev. Fund		

1/: H.N.B --- Hatton National Bank
Source: Office file of BC, Colombo

Table 3.11.1 Previous and On-going Projects related to the Study Area (1/2)

Name of Projects	Financial Sources / Donors	Implementing Agencies	Period	Project Components & Contents	Remarks
On-going Projects					
(1) North Central Province Rural Development Project	ADB (US\$ 31 million)	- Provincial Irri. Dept. for minor tanks outside MASL - ID/MIP for medium tanks outside MASL - MASL	1996-2003	- Rehabilitation of 10 medium schemes (1,500ha) and 90 minor schemes (1,025ha) in North Central Province - Rehabilitation of 10 medium schemes and 40 minor schemes in System 'H', MASL - Establishment and strengthening of FOs	- North Central Province
(2) North Central Province Participatory Rural Development Project	IFAD Co-financing with SIDA, WFP and JICA	Rural Development Division (RDD)/ Ministry of Planning and Policy Implementation (MPPI)	1996-2002 (7 years)	- Social mobilization and participatory planning - Water resources development including rehabilitation of medium and minor tanks and installation of agro-wells - Agricultural development - Storage, processing and income generation - Rural financial services and health and nutrition	- North Central Province - 6 Divisions (Rajanganaya, Palagala, Palugaswewa, Nuwaragam Palatha East, Nuwaragam Palatha Central, Thirappane) in Anuradhapura overlap with the Study Area.
(3) Mahaweli Restructuring and Rehabilitation Project	IDA (US\$ 57 million)	MASL	1998-2003	- Restructuring of MASL - Rehabilitation of irrigation system in System 'H' - Turn over of O&M below D-Canals to FOs	- System 'H' area of MASL (Anuradhapura)
(4) North Western Province Dry Zone Participatory Development Project	IFAD (US\$ 18 million)	- RDD/MPPI - Provincial Council	1993-2001	- Rehabilitation of 300 micro tanks (2-10ha) in North Western Province - Installation of 500 agro-wells	- North Western Province
(5) North Western Province Water Resources Development Project	ADB ADB: US\$ 30 million GOSL: US\$ 10 million	- MIP - Provincial Council	1992- 2000	- Restore, rehabilitate, improve 36 major/medium irrigation schemes - Restore, rehabilitate, improve 670 major/medium irrigation schemes - Improve 920 km class "D", "E" and agricultural roads - Provision of credit facilities for construction of 1,250 agro-wells and 750 lift irrigation schemes and self employment for 3,000 rural women - Provision of institutional support and training	- North Western Province - Rehabilitated and restored completely 13 major/medium schemes, 395 minor schemes (1998) - Improved completely 465 km of rural roads (1998)
(6) Integrated Management of Major Agricultural Scheme (INMAS)	GOSL	IMD/MIP	-	- The major activities to be implemented by INMAS to increase productivity of agricultural lands and farmers incomes are as follows: 1) Institutional development programme 2) Agricultural production programme 3) System management rehabilitation and improvement programme 4) Enterpreneurship skill development program 5) Catchment development programme 6) Pilot testing of commercialization of small farm agriculture	- 37 major irrigation schemes commanding 600 - 16,500 ha - Out of 268 major and medium schemes in the whole country, 37 schemes were covered by INMAS. - The total irrigation commanding area under 37 schemes covers about 157,270 ha.

Table 3.11.1 Previous and On-going Projects related to the Study Area (2/2)

Name of Projects	Financial Sources / Donors	Implementing Agencies	Period	Project Components & Contents	Remarks
(7) Management of Irrigation System (MANIS)	GOSL	ID/MIP	1986	(Almost same as INMAS)	- Whole country - 39 major and medium schemes were gazetted until present, and 35 schemes will be gazetted in 1999.
Previous Projects					
(1) National Irrigation Rehabilitation Project (NIRP)	IDA / EC (Rs 2,367 million)	- ID/MIP - Dept. of Agrarian Services - Provincial Council	1992-1999	- Rehabilitation of 35 major/medium and 1,000 minor irrigation systems (37,500 ha in extent) - Associated training and institutional support for development of farmers organizations - Improvement of O&M of the schemes, training for officials and beneficiaries, institutional support and studied, aftercare of completed schemes.	- Whole country, 1999: Aftercare - Central Province: 7 major/medium and 167 minor schemes (7,080 ha) - North Central Province: 7 medium/major, 171 minor schemes (5,670 ha) - North Western Province: 74 medium/major, 80 minor schemes (3,450ha)
(2) Major Irrigation Rehabilitation Project (MIRP)	IDA Co-financing with CIDA and SDC	- IMD and ID - Land Commissioner's Department - Dept. of Agriculture - DAS - IIMI	1985-1994	- Increase agricultural production under 7 major irrigation schemes - Introduce an effective programme for their integrated management through (i) rehabilitation of the systems, and (ii) support for INMAS to ensure proper O&M and distribution of irrigation supplies and the complementary programming of agricultural activities	- Out of 7 proposed major schemes, three schemes of Giant's Tank, Morawewa and Iranamadu could not be completed due to civil unrest.
(3) Kurunegala Rural Development Project (KRDP)	IDA (US\$ 17 million)	- Ministry of Finance, Planning, Ethnic and National Integration (MFPEA & NI)	1979-1986	- Modernize irrigation and water management - Rehabilitate and replant coconut holdings - Improve agricultural extension services - Increase supplies of agricultural inputs - Expand credit operation and resources - Improve rural roads, water and electricity supplies - Upgrade educational and health facilities	- Kurunegala District, North Western Province
(4) Second Rural Development Project (SRDP)	IDA (US\$ 26 million)	MFPEA & NI	1981-1991	(Almost same with KRDP)	- Kurunegala District, North Western Province

- Sources: 1) Projects and Programmes 1999, Ministry of Irrigation and Power.
2) North Central Province Participatory Rural Development Project - Appraisal Report, IFAD, February 1996.
3) Major Irrigation Rehabilitation Project - Project Completion Report, IBRD, July 1995.
4) Kurunegala Rural Development Project / Second Rural Development Project - Impact Evaluation Report, IDA, April 1997.
5) North Western Province Water Resources Development Project - Quarterly Progress Report, January-March 1999, Project Director's Office, Kurenegala.
6) Information from RPM Office, System 'H'.
7) National Irrigation Rehabilitation Project - Staff Appraisal Report, the World Bank, May 1991.
8) National Irrigation Rehabilitation Project - Work Plan 1998, Central Management Cell, Ministry of Irrigation and Power, February 1998.

Table 4.1 Candidate Major and Medium Irrigation Scheme

No.	Cluster	Code	Name of Scheme	Command Area (ha)	Range (ID)	O&M	Nos. of FO	Past/On-going Foreign Aid Projects		Remarks	
								Agencies	Date of Completion		
1	Nachchaduwa	1MA-01	Nachchaduwa	2,540	Anuradapura	IMD	15	MIRP	1989		
2	Nachchaduwa	1MA-02	Nuwarawewa	1,134	Anuradapura	IMD	6	MIRP	1989		
3	Nachchaduwa	1MA-03	Tissawewa	365	Anuradapura	IMD	3	MIRP	1989		
4	Nachchaduwa		Mannankattiya		Anuradapura	ID	4	NIRP	1999	Rehabilitation	Not included
5	Nachchaduwa	1ME-01	Thuruwila	227	Anuradapura	IMD	1	MIRP	1989		
6	Nachchaduwa	1ME-02	Eru Wewa	34	Anuradapura	ID	1	NIRP	1993		
7	Nachchaduwa		Labunowewa		Anuradapura	ID	3	NIRP	1999	Rehabilitation	Not included
8	Nachchaduwa	1ME-03	Uttimaduwa	93	Anuradapura	ID	1		No Project		
9	Nachchaduwa	1ME-04	Periyalulawa	91	Anuradapura	ID	1		No Project		
10	Nachchaduwa	1ME-05	Maminiyawa	211	Anuradapura	ID	1		No Project		
11	Nachchaduwa		Kawarakkulama		Anuradapura	ID	1		No Project	Army Camp	Not included
12	Nachchaduwa	1ME-06	Maha bunankulama	90	Anuradapura	ID	1	ADB	Ongoing	Anicut only	
13	Kala Oya 1	2MA-01	Rajangana	5,668	Anuradapura	IMD	56 *	MIRP	1989		
14	Kala Oya 1		Usgala-Siambalangamuwa			IMD	6	NIRP	Dec-98		Not included
15	Kala Oya 1	2ME-01	Angamuwa		Rajangana	ID	*	MIRP	1987		
16	Kala Oya 2		Dewahuwa		Danbulla	IMD	8	NIRP	On-going		Not included
17	Kala Oya 2		Kirindiwatta		Rajangana	ID	3	ADB	On-going		Not included
18	Mi Oya	4MA-01	Palukadawela	956	Galgamuwa	IMD	20 FOs for 3 schemes	ADB	1997/12/31	Improvement	
19	Mi Oya	4MA-02	Attaragallewa	462	Galgamuwa	IMD		ADB	1996/6/30	Improvement	
20	Mi Oya	4MA-03	Ambakolawewa	410	Galgamuwa	IMD		ADB	1995/12/31	Improvement	
21	Mi Oya	4ME-01	Mahananneriya	158	Kurunegala	ID	1		No Project		
22	Mi Oya		Maha Andarawewa		Putalam	ID	1	ADB	Dec-98		Not included
23	Mi Oya		Mediyawa Wewa		Kurunegala	ID	1	NIRP	Dec-98		Not included
24	Mi Oya	4ME-02	Maha galgamuwa	193	Galgamuwa	ID	3		No Project		
25	Deduru Oya 1	5MA-01	Magalle Wewa	2,632	Nikawarathi	IMD	11		No Project		
26	Deduru Oya 1	5ME-01	Hulugallowewa	121	Hiliyala	ID	1	ADB	1997/6/30	Rehabilitation	
27	Deduru Oya 2		Hakwatuna Oya		Hiliyala	IMD	13	ADB	On-going	Improvement	Not included
28	Deduru Oya 2		Bathalagoda		Hiliyala	IMD	18	ADB	On-going	Improvement	Not included
29	Deduru Oya 2		Kimbulwana Wewa		Hiliyala	ID	1	ADB	On-going	Improvement	Not included
30	Deduru Oya 2	6ME-01	Meddeketiya	98	Kurunegala	ID	4	ADB	1997/6/30	Rehabilitation	
31	Deduru Oya 2		Diyature Anicut		Kurunegala	ID	4	ADB	On-going	Rehabilitation	Not included
32	Deduru Oya 2	6ME-02	Moragada Anicut	194	Kurunegala	ID	3	ADB	1996/6/30	Extension scheme	

Note: * This figure includes Angamuwa scheme (2ME-01).

Selected

Candidate irrigation schemes were selected by MIP, in accordance with the Ministry's development policy.

MA: Major Irrigation Scheme ME: Medium Irrigation Scheme

6ME-01 ← Code number of the scheme

↑ Cluster number

Table 4.2 List of Major and Medium Irrigation Schemes to be Studied

No.	Cluster	Code	Name of Scheme	Command Area (ha)	Range (ID)	O&M	Nos. of FO	Past/On-going Foreign Aid Projects		Remarks
								Agencies	Date of Completion	
1	Nachchaduwa	1MA-01	Nachchaduwa	2,540	Anuradapura	IMD	15	MIRP	1989	
2	Nachchaduwa	1MA-02	Nuwarawewa	1,134	Anuradapura	IMD	6	MIRP	1989	
3	Nachchaduwa	1MA-03	Tissawewa	365	Anuradapura	IMD	3	MIRP	1989	
4	Nachchaduwa	1ME-01	Thuruwila	227	Anuradapura	IMD	1	MIRP	1989	
5	Nachchaduwa	1ME-02	Eru Wewa	34	Anuradapura	ID	1	NIRP	1993	
6	Nachchaduwa	1ME-03	Uttimaduwa	93	Anuradapura	ID	1		No Project	
7	Nachchaduwa	1ME-04	Periyakulawa	91	Anuradapura	ID	1		No Project	
8	Nachchaduwa	1ME-05	Maminiyawa	211	Anuradapura	ID	1		No Project	
9	Nachchaduwa	1ME-06	Maha bunankulama	90	Anuradapura	ID	1	ADB	Ongoing	Anicut only
10	Kala Oya 1	2MA-01	Rajangana	5,668	Anuradapura	IMD	56 *	MIRP	1989	
11	Kala Oya 1	2ME-01	Angamuwa		Rajangana	ID	*	MIRP	1997	
12	Mi Oya	4MA-01	Palukadawela	956	Galgamuwa	IMD	} 20 FOs for 3 schemes	ADB	1997/12/31	Improvement
13	Mi Oya	4MA-02	Attaragallewa	462	Galgamuwa	IMD		ADB	1996/6/30	Improvement
14	Mi Oya	4MA-03	Ambakolawewa	410	Galgamuwa	IMD		ADB	1995/12/31	Improvement
15	Mi Oya	4ME-01	Mahananneriya	158	Kurunegala	ID	1		No Project	
16	Mi Oya	4ME-02	Maha galgamuwa	193	Galgamuwa	ID	3		No Project	
17	Deduru Oya 1	5MA-01	Magalle Wewa	2,632	Nikawarathi	IMD	11		No Project	
18	Deduru Oya 1	5ME-01	Hulugallowewa	121	Hiliyala	ID	1	ADB	1997/6/30	Rehabilitation
19	Deduru Oya 2	6ME-01	Meddeketiya	98	Kurunegala	ID	4	ADB	1997/6/30	Rehabilitation
20	Deduru Oya 2	6ME-02	Moragada Anicut	194	Kurunegala	ID	3	ADB	1996/6/30	Extension scheme

Note: * This figure includes Angamuwa scheme (2ME-01).

MA: Major Irrigation Scheme ME: Medium Irrigation Scheme

Table 4.3 List of Minor Irrigation Schemes

Cluster	Cascade System	Code No.	Agrarian Service Centre	Name of Schemes	Area in ha	Cluster	Cascade System	Code No.	Agrarian Service Centre	Name of Schemes	Area in Acres	
<i>Anuradhapura District</i>	Nachchaduwa	I	1MI-01	Mihinthalaya	Iluppakanniya	22	Mi Oya	VI	4MI-01	Ehatuwewa	Pahala Abogama Wewa	19
			1MI-02	Mihinthalaya	Nelumkanniya Wewa	23			4MI-02	Ehatuwewa	Galkatiyagama Wewa	15
			1MI-03	Mihinthalaya	Thariyan Kulama	60			4MI-03	Ehatuwewa	Maha Abogama Wewa	50
			1MI-04	Mihinthalaya	Kuda Kalaththawa Wewa	22			4MI-04	Ehatuwewa	Kaduru Wewa Maha Wewa	75
			1MI-05	Mihinthalaya	Kammalak Kulama	36			4MI-05	Ehatuwewa	Kumbuk Kadawala Wewa	14
			1MI-06	Mihinthalaya	Halmillawa	55			4MI-06	Ehatuwewa	Ahatu Wewa	47
			1MI-07	Mihinthalaya	Maha Kalaththawa	73			4MI-07	Ehatuwewa	Aluth wewa	8
			1MI-08	Mihinthalaya	Bandialan Kulama	12			4MI-08	Ehatuwewa	Galkadawala Wewa	22
	8 Schemes		303		4MI-09	Ehatuwewa			Ratna Divul Wewa	34		
	Nachchaduwa	II	1MI-09	Ipalogama	Ihala Amanakattuwa	21			4MI-10	Ehatuwewa	Manakkulagama Wewa	20
			1MI-10	Ipalogama	Walagambahuwa Wewa	24			4MI-11	Ehatuwewa	Ereyawa Wewa	14
			1MI-11	Ipalogama	Pahala Amanak Kattuwa	15	11 Schemes		318			
			1MI-12	Ipalogama	Marikarayagama Wewa	24	Mi Oya	VII	4MI-12	Galgamuwa	Kallanchiya Wewa	8
			1MI-13	Ipalogama	Paindi Kulama Wewa	60			4MI-13	Galgamuwa	Arthikulama Wewa	12
			1MI-14	Ipalogama	Mawatha Wewa	32			4MI-14	Maha Nannariya	Mailewa Wewa	22
			1MI-15	Thirappana	Sambu Kulama	36			4MI-15	Maha Nannariya	Ihalagama Wewa	29
			1MI-16	Thirappana	Ranchi Kulama	66			4MI-16	Maha Nannariya	Tharbane Wewa	20
	8 Schemes		278		4MI-17	Maha Nannariya			Gama Wewa	26		
	Nachchaduwa	III	1MI-17	Ipalogama	Gallewa Wewa	30			4MI-18	Galgamuwa	Molewa Wewa	52
			1MI-18	Ipalogama	Gallewa Ulan Kulama	28			4MI-19	Galgamuwa	Iddamalpitiya Wewa	12
			1MI-19	Ipalogama	Kiri Amunukole Wewa	14			4MI-20	Maha Nannariya	Nochiya Wewa	48
			1MI-20	Ipalogama	Kuttikulama Wewa	16			4MI-21	Maha Nannariya	Wanni Kuda Wewa	30
			1MI-21	Ipalogama	Indigaha Wewa	8	10 Schemes		260			
			1MI-22	Eppawala	Mawatha Wewa	60	Deduru Oya 1	VIII	5MI-01	Kotawehera	Yakadadotha Wewa	14
			1MI-23	Eppawala	Kuda Wewa	16			5MI-02	Kotawehera	Udagirilla Wewa	18
			1MI-24	Eppawala	Kudagama	34			5MI-03	Kotawehera	Mahagirilla Maha Wewa	18
1MI-25			Thirappana	Selethimaduwa	24	5MI-04			Kotawehera	Hidogama	40	
1MI-26			Thirappana	Halmilla Kulama	182	5MI-05			Kotawehera	Karawdeniya Wewa	12	
10 Schemes		412		5MI-06	Kotawehera	Kodawalagedara Wewa			64			
Kala Oya 1	IV	2MI-01	Negempeha	Nika Attegama Wewa	21	5MI-07			Kotawehera	Hukawa Wewa	17	
		2MI-02	Negempeha	Uda Negama Wewa	27	5MI-08			Nikaweratiya	Kotuwattawala Wewa	27	
		2MI-03	Negempeha	Negama Wewa	58	5MI-09			Nikaweratiya	Waduessa Maha Wewa	25	
		2MI-04	Negempeha	Kallanchiya Wewa	28	5MI-10			Nikaweratiya	Thubulla Maha Wewa	36	
		2MI-05	Negempeha	Medawachchiya Wewa	59	10 Schemes		271				
		2MI-06	Negempeha	Maha Otthapahuwa Wewa	24	Deduru Oya 2	IX	6MI-01	Rambe	Dike Wewa	21	
		2MI-07	Negempeha	Kandulugamuwa Wewa	36			6MI-02	Rambe	Maha Wewa	71	
		2MI-08	Negempeha	Dik Wewa	47			6MI-03	Rambe	Thanbuwa Maha Wewa	30	
		2MI-09	Negempeha	Kumbuk Wewa	50			6MI-04	Rambe	Hewanamahawewa	17	
9 Schemes		349		4 Schemes		139						
<i>Matale District</i>	Kala Oya 2	V	3MI-01	Galewela	Ththiri Wewa	19	Total		80 Schemes			2,509
			3MI-02	Galewela	Weragalawatta Wewa	11						
			3MI-03	Galewela	Nabadagahawatta Wewa	37						
			3MI-04	Galewela	Nikaweharagame Wewa	13						
			3MI-05	Galewela	Galpita Wewa	22						
			3MI-06	Galewela	Bathala Jothuwa Tank	9						
			3MI-07	Galewela	Damunumulla Gama Wewa	24						
			3MI-08	Galewela	Yati Galputta Gama Wewa	11						
			3MI-09	Galewela	Kuda Wewa	8						
			3MI-10	Galewela	Disawage Kuda Wewa	26						
10 Schemes		179										

Table 5.1.1 Present Condition of 100 Irrigation Schemes (1/10)

Code No.	Name of Scheme	Total Farm Household (No.)	Population (No.)	Family Size	Labour Force (15-60 years)	General Background																				
						Religion						Education (19 years old and above)						Land Holding per Farmer					Land Tenure per Farmer			
						Buddhist (%)	Christianity (%)	Hindu (%)	Islam (%)	Others (%)	None (%)	Primary School (%)	O-level (%)	A-level (%)	Technical School (%)	University (%)	Paddy Field		Highland (ha)	Others (ha)	Total (ha)	Own land (%)	Leased (%)	Tenure ("Ande") (%)	Encroached (%)	
																	Irrigated (ha)	Rain-fed (ha)								
Major Scheme	1MA-01	Nachchaduwa Wewa	3,570	16,100	4.5	3.3	98.0	-	-	2.0	-	5.6	39.4	37.5	15.6	-	1.9	1.66	-	0.19	0.47	2.32	74	18	4	4
	1MA-02	Nuwarawewa	2,000	9,000	4.5	3.4	100.0	-	-	-	-	5.5	41.7	39.9	11.0	-	1.8	1.84	0.07	0.08	0.53	2.52	54	41	5	-
	1MA-03	Tissawewa	350	1,600	4.7	3.4	87.8	-	2.0	10.2	-	5.2	33.1	39.6	18.2	1.3	2.6	1.20	-	0.00	0.58	1.78	57	34	8	1
	2MA-01	Rajangana Wewa	7,350	36,000	4.9	3.6	100.0	-	-	-	-	3.6	41.2	41.8	10.3	0.6	2.4	1.00	0.05	0.08	0.25	1.38	80	14	5	1
	4MA-01	Palukadawela	970	4,200	4.3	2.9	96.0	-	-	4.0	-	5.3	34.9	39.5	19.1	-	1.3	1.18	0.05	0.35	0.54	2.12	89	1	9	0.5
	4MA-02	Attaragalla Wewa	360	1,600	4.4	3.0	100.0	-	-	-	-	2.9	50.4	30.2	13.7	0.7	2.2	0.80	0.03	0.07	0.39	1.29	87	7	6	-
	4MA-03	Abakola Wewa	520	2,300	4.5	3.0	100.0	-	-	-	-	3.3	52.0	28.0	16.7	-	-	0.76	-	0.09	0.53	1.38	81	11	7	1
	5MA-01	Magallewewa	3,000	12,000	4.0	2.7	100.0	-	-	-	-	4.3	43.2	35.3	15.1	0.7	1.4	0.81	0.01	0.09	0.59	1.50	89	3	7	-
Medium Scheme	1ME-01	Thuruweli Wewa	200	1,000	4.9	3.2	100.0	-	-	-	-	6.6	53.9	26.3	13.2	-	-	1.33	0.04	0.08	0.43	1.88	80	18	-	2
	1ME-02	Eru wewa	10	100	5.2	3.5	100.0	-	-	-	-	1.6	57.8	26.6	9.4	1.6	3.1	1.18	0.13	0.30	0.52	2.13	85	6	0.5	9
	1ME-03	Uttimaduwa Wewa	190	900	4.9	3.1	100.0	-	-	-	-	2.7	25.7	52.7	17.6	-	1.4	1.25	0.02	0.11	0.52	1.90	77	14	1	8
	1ME-04	Periyakulama	80	400	4.5	2.9	100.0	-	-	-	-	4.8	33.9	38.7	22.6	-	-	0.94	0.06	0.20	0.48	1.68	85	7	2	6
	1ME-05	Maminiya Wewa	130	500	3.9	2.5	100.0	-	-	-	-	4.5	26.9	44.8	23.9	-	-	1.55	-	0.15	0.50	2.20	82	17	-	1
	1ME-06	Mahabulankulama	160	600	3.9	2.7	100.0	-	-	-	-	-	40.6	37.5	18.8	-	3.1	2.03	0.02	0.41	0.73	3.19	84	4	10	2
	2ME-01	Angamuwawewa	-	-	4.3	2.8	100.0	-	-	-	-	1.4	47.8	33.3	14.5	-	2.9	0.93	0.07	0.12	0.44	1.56	95	1	4	-
	4ME-01	Mahananeriyawewa	260	1,100	4.2	2.9	100.0	-	-	-	-	3.0	44.8	28.4	20.9	-	3.0	0.61	-	0.24	0.54	1.39	62	4	13	21
	4ME-02	Mahagalgamuwawewa	210	900	4.5	2.8	96.2	-	-	-	3.8	1.3	47.5	36.3	12.5	1.3	1.3	0.64	0.02	0.15	0.35	1.16	78	5	8	9
	5ME-01	Hulugalla Wewa	120	600	4.6	3.0	100.0	-	-	-	-	-	37.7	32.5	24.7	1.3	3.9	0.86	0.01	0.60	0.44	1.91	86	5	8	1
6ME-01	Meddeketiya Wewa	250	900	3.7	2.5	100.0	-	-	-	-	6.2	52.3	21.5	20.0	-	-	0.54	-	0.05	0.33	0.92	89	-	11	-	
6ME-02	Moragoda Anicut	200	800	3.8	2.9	100.0	-	-	-	-	3.2	49.2	33.3	11.1	3.2	-	0.79	-	0.02	0.53	1.34	87	13	-	-	
Minor Scheme (Hydrological Group)	I	8 Minor Schemes	370	1,600	4.5	3.1	100.0	-	-	-	-	3.8	50.0	30.5	12.9	1.1	1.7	0.77	0.03	0.19	0.63	1.62	80	9	5	6
	II	8 Minor Schemes	560	2,100	3.7	2.4	100.0	-	-	-	-	3.5	42.0	38.2	13.9	-	2.4	0.61	0.12	0.16	0.28	1.18	85	7	4	4
	III	10 Minor Schemes	600	2,400	4.0	2.8	100.0	-	-	-	-	3.8	51.8	29.7	12.5	0.4	1.9	0.84	0.04	0.07	0.40	1.35	88	6	5	1
	IV	9 Minor Schemes	560	2,500	4.5	3.1	83.3	-	-	16.7	-	3.8	43.7	35.0	16.2	0.4	0.8	1.01	0.02	0.22	0.48	1.74	87	4	5	3
	V	10 Minor Schemes	540	2,300	4.2	2.9	73.0	18.0	-	9.0	-	4.2	46.5	31.3	16.9	-	1.0	0.46	0.08	0.06	0.39	0.99	91	1	8	-
	VI	11 Minor Schemes	650	2,600	4.0	2.7	100.0	-	-	-	-	3.2	41.9	31.5	21.8	0.3	1.2	0.53	0.06	0.18	0.38	1.15	88	4	4	3
	VII	10 Minor Schemes	660	2,800	4.3	2.9	98.0	-	-	2.0	-	5.1	45.1	31.9	17.1	-	0.9	0.57	0.02	0.21	0.57	1.37	84	4	7	5
	VIII	10 Minor Schemes	1,130	4,900	4.3	2.8	96.0	4.0	-	-	-	1.5	39.1	35.1	22.7	0.3	1.3	0.55	0.06	0.25	0.58	1.44	85	2	7	6
	IX	4 Minor Schemes	370	1,600	4.5	3.1	97.5	2.5	-	-	-	3.8	48.0	37.4	10.7	-	-	0.78	0.01	0.05	0.44	1.27	89	5	6	-
Major		18,110	82,800	4.5	3.2	97.7	-	0.3	2.0	-	4.5	42.0	36.5	15.0	0.4	1.7	1.16	0.03	0.12	0.49	1.79	75	18	6	1	
Medium		1,800	7,800	4.4	2.9	99.7	-	-	-	0.3	2.9	43.2	34.3	17.4	0.6	1.6	1.05	0.03	0.20	0.48	1.77	82	8	5	5	
Minor		5,430	22,800	4.2	2.8	93.9	2.9	-	3.3	-	3.6	45.1	33.0	16.7	0.3	1.3	0.66	0.05	0.16	0.46	1.34	86	5	6	3	
All Total		25,350	113,400	4.2	2.9	94.9	2.3	0.0	2.8	0.0	3.6	44.6	33.4	16.6	0.3	1.4	0.75	0.05	0.16	0.47	1.43	85	7	6	3	
Remarks	Source: Inventory Survey in 1999			Source: Questionnaire Survey in 1999.																						

Table 5.1.1 Present Condition of 100 Irrigation Schemes (2/10)

Code No.	General Background														Agriculture										
	Home Facilities / Household				Farm Machinery / Household				Livestock per Household						Com-manding Area (ha)	Cropped Area				Cropping Intensity of Paddy			Culti. Area of Paddy-Irrigated per Farmer (1998)		
	Bi-cycle (No.)	Motor-cycle (No.)	TV (No.)	Sewing machine (No.)	4-W tractor (No.)	2-W tractor (No.)	Sprayer (No.)	Water pump (No.)	Buffalo (Head)	Cattle/cow (Head)	Goats (Head)	Pigs (Head)	Chicken (Head)	Paddy		OFC		Max. (%)	Mini. (%)	Ave. (%)	Maha (ha)	Yala (ha)			
														Maha (ha)		Yala (ha)	Maha (ha)						Yala (ha)		
Major Scheme	1MA-01	1.60	0.34	0.80	0.70	0.08	0.22	0.60	0.22	0.08	0.92	0.20	-	6.70	2,540	2,587	1,473	1	201	177	100	160	1.41	0.90	
	1MA-02	1.50	0.34	0.76	0.46	0.06	0.20	0.54	0.28	0.50	1.20	-	0.06	3.56	1,134	1,133	210	0	0	193	100	118	1.85	1.46	
	1MA-03	1.26	0.34	0.80	0.50	0.12	0.14	0.48	0.18	-	1.18	0.60	-	9.02	365	299	57	0	7	133	117	97	1.34	0.52	
	2MA-01	1.44	0.20	0.58	0.50	0.02	0.26	0.56	0.10	0.50	1.12	0.14	-	0.58	5,668	5,395	4,386	436	554	201	152	173	0.80	0.71	
	4MA-01	1.34	0.50	0.64	0.44	0.02	0.14	0.60	0.12	0.10	1.38	-	-	0.28	956	956	433	0	192	145	145	145	1.04	0.20	
	4MA-02	1.34	0.26	0.70	0.44	0.04	0.08	0.52	0.10	0.20	0.20	-	-	0.40	462	462	206	0	4	145	145	145	0.73	0.14	
	4MA-03	1.38	0.26	0.60	0.34	0.06	0.08	0.52	0.20	0.20	0.42	-	-	0.06	410	410	205	0	0	150	150	150	0.67	0.21	
5MA-01	1.00	0.28	0.68	0.50	-	0.18	0.50	0.10	0.04	0.72	-	0.04	0.00	2,632	2,385	1,618	11	225	160	147	152	0.71	0.39		
Medium Scheme	1ME-01	1.64	0.36	0.56	0.28	-	0.28	0.72	0.16	-	0.16	-	0.04	3.52	227	186	171	0	10	165	161	158	1.02	0.70	
	1ME-02	1.44	0.16	0.40	0.52	0.04	0.04	0.52	0.56	0.24	0.64	-	-	0.88	34	34	34	0	0	202	202	202	0.90	0.48	
	1ME-03	1.16	0.24	0.44	0.44	0.04	0.20	0.24	-	0.96	1.08	0.28	-	0.12	93	93	0	0	0	100	100	100	0.99	0.38	
	1ME-04	1.36	0.28	0.56	0.32	-	0.12	0.36	0.16	0.32	1.40	-	-	0.40	91	91	19	0	0	127	118	121	0.32	0.29	
	1ME-05	1.08	0.48	0.84	0.48	-	0.20	0.24	0.08	-	0.36	-	-	0.00	211	196	36	0	0	119	108	110	0.91	0.27	
	1ME-06	1.00	0.36	0.64	0.44	0.20	0.20	0.32	0.12	-	1.44	-	-	0.44	90	72	21	0	2	144	16	104	0.39	0.02	
	2ME-01	1.36	0.24	0.52	0.48	-	0.16	0.48	0.08	-	0.36	-	-	0.76										0.74	0.64
	4ME-01	1.44	0.24	0.48	0.36	-	0.08	0.52	0.04	-	1.20	-	0.20	0.20	158	158	0	0	12	100	100	100	0.50	-	
	4ME-02	0.76	0.44	0.12	0.28	0.04	0.04	0.20	-	-	0.96	0.20	0.28	0.24	193	113	103	0	3	50	50	111	0.54	-	
	5ME-01	1.08	0.40	0.76	0.64	-	0.32	0.56	0.12	1.68	1.64	-	-	0.00	121	121	61	0	0	150	150	150	0.59	0.57	
	6ME-01	0.88	0.16	0.68	0.40	-	0.08	0.36	0.08	0.56	0.72	-	-	0.00	98	98	0	0	10	100	100	100	0.54	0.37	
	6ME-02	0.96	0.24	0.48	0.32	0.08	0.28	0.40	0.36	0.88	1.20	-	-	0.20	194	208	201	0	8	226	226	211	0.68	0.64	
Minor Scheme (Hydrological Group)	I	1.16	0.26	0.60	0.36	0.04	0.08	0.34	0.38	1.00	3.58	0.14	-	0.39	303	228	6	0	0	86	67	77	0.47	-	
	II	1.13	0.26	0.45	0.41	0.01	0.06	0.43	0.44	-	0.44	0.13	-	0.16	278	80	5	0	0	49	11	31	0.27	0.02	
	III	1.24	0.33	0.59	0.34	0.01	0.12	0.36	0.20	0.11	1.77	0.54	-	0.59	412	338	214	0	11	144	110	134	0.37	0.04	
	IV	1.30	0.33	0.53	0.40	-	0.07	0.26	0.19	1.39	2.22	-	-	0.32	349	148	30	0	4	63	27	51	0.32	0.12	
	V	0.84	0.23	0.66	0.43	0.05	0.08	0.48	0.30	0.46	0.61	0.05	0.37	1.49	179	165	18	0	66	112	95	102	0.41	0.07	
	VI	1.08	0.27	0.51	0.45	0.03	0.09	0.23	0.09	0.09	0.77	-	-	0.00	318	225	45	9	13	96	77	85	0.42	0.02	
	VII	1.06	0.24	0.55	0.39	-	0.03	0.23	0.09	0.67	0.81	1.02	-	0.19	260	150	12	0	9	101	8	62	0.47	0.00	
	VIII	0.85	0.31	0.54	0.42	0.02	0.16	0.42	0.05	1.00	1.32	0.38	-	2.30	271	206	71	0	8	114	83	102	0.38	0.09	
	IX	0.88	0.15	0.65	0.35	0.03	0.13	0.45	0.10	0.48	0.85	-	-	0.00	139	109	81	0	9	171	77	137	0.69	0.42	
Major	1.36	0.32	0.70	0.49	0.05	0.16	0.54	0.16	0.20	0.89	0.12	0.01	2.58	14,167	13,627	8,588	447	1,184	171	136	157	1.07	0.57		
Medium	1.18	0.30	0.54	0.41	0.03	0.17	0.41	0.15	0.39	0.93	0.04	0.04	0.56	1,509	1,370	645	0	45	144	124	134	0.68	0.36		
Minor	1.07	0.27	0.56	0.40	0.02	0.09	0.35	0.20	0.57	1.36	0.28	0.05	0.66	2,509	1,648	483	9	120	109	96	103	0.41	0.07		
All Total	1.10	0.28	0.57	0.41	0.02	0.10	0.37	0.19	0.52	1.27	0.23	0.04	0.80	18,185	16,645	9,715	456	1,349	156	130	144	0.49	0.14		
Remarks	Average holding number or raising head per household. (Questionnaire Survey in 1999)														Average figures during past 5 years from 1994 to 1998										

Table 5.1.1 Present Condition of 100 Irrigation Schemes (3/10)

Code No.	Agriculture														Irrigation Facilities					Rural Infrastructure										
	Unit Yield (1998)					Crop Damage (Paddy - Maha - Irrigated)									No. of Tank (No.)	Storage Capacity			Canal Length		Road (Length per Village)					Drinking Water				Electrification (light-ing) (%)
	Paddy-Irrigated		Beans/peas (t/ha)	Chilies (Dry) (t/ha)	B. Onion (t/ha)	Drought (%)	Flood (%)	Poor drainage (%)	Pests & diseases (%)	Birds (%)	Rats (%)	Wild animals (%)	Others (%)	Max. (MCM)		Mini. (MCM)	Ave. (MCM)	Main & Branch (km)	D&F (km)	A (km)	B (km)	C (km)	D (km)	E (km)	Surface well (%)	Stand Post (Pipe) (%)	Tube well (%)	Others (%)		
	Maha (t/ha)	Yala (t/ha)																												
Major Scheme	1MA-01	4.43	3.81	-	0.67	-	2	4	2	55	2	2	22	4	1			55.81	40	107	0.4	1.9	4.3	2.7	2.9	94	-	6	-	74
	1MA-02	4.11	2.64	-	-	-	2	8	2	54	4	4	12	8	1			44.47	19	36	0.6	1.3	1.0	6.4	8.2	92	-	8	-	84
	1MA-03	4.04	4.11	1.19	-	-	-	10	2	31	6	2	2	10	1			3.97	3	23	1.0	2.0	4.8	2.0	4.0	88	2	6	4	74
	2MA-01	4.04	4.12	1.65	0.51	-	-	4	4	69	-	-	-	4	1			100.66	59	389	-	0.2	0.6	1.4	2.8	98	-	-	2	55
	4MA-01	3.55	2.66	0.57	0.38	-	4	20	4	71	6	-	49	2	1			9.48	20	11	-	-	10.0	6.5	-	81	2	-	17	62
	4MA-02	4.05	4.38	0.21	1.07	-	12	2	4	80	10	6	27	4	1			4.55	9	14	-	-	2.3	3.3	-	70	8	18	4	67
	4MA-03	4.26	4.22	-	0.57	-	8	2	6	84	6	12	24	12	1			6.26	5	17	-	-	3.5	2.8	-	84	2	14	-	20
	5MA-01	4.34	4.78	-	-	-	10	2	4	82	6	10	12	24	1			8.03	38	46	0.5	0.5	4.5	4.3	2.5	94	-	6	-	58
Medium Scheme	1ME-01	4.64	3.59	-	0.73	-	4	13	-	70	4	-	30	-	1			6.40	2	11	0.3	2.9	0.4	-	0.1	88	-	8	4	60
	1ME-02	3.62	3.60	-	0.72	6.45	10	5	-	67	5	-	19	5	1			0.77	2	0	-	-	-	-	-	96	-	-	4	12
	1ME-03	3.15	2.48	-	0.09	-	-	8	4	76	8	-	64	4	1			1.56	3	0	-	4.0	3.0	3.0	-	68	8	24	-	72
	1ME-04	4.15	3.56	-	0.39	-	11	-	-	56	-	-	56	-	1			1.67	0	5	0.8	0.5	-	0.8	2.3	80	-	20	-	72
	1ME-05	4.43	1.71	1.21	0.03	-	-	-	-	63	-	-	74	-	1			1.68	7	9	0.5	1.3	1.3	3.0	1.0	76	4	20	-	88
	1ME-06	2.63	3.83	0.83	0.38	-	-	-	-	70	-	-	30	10	1			1.36	2	6	1.2	9.0	2.7	-	-	80	-	20	-	84
	2ME-01	4.47	4.39	0.60	-	-	5	-	-	64	-	9	-	-	1			15.54			1.3	1.2	4.9	14.7	7.7	64	-	36	-	48
	4ME-01	2.71	-	0.49	1.71	-	44	-	4	76	4	4	72	4	1			2.50	3	3	-	0.9	2.0	-	-	80	-	20	-	8
	4ME-02	2.92	-	0.25	-	-	72	-	8	72	12	-	92	-	1			7.96	6	5	-	0.4	3.4	3.2	-	77	-	4	19	*
	5ME-01	3.13	3.57	-	-	-	12	-	-	80	12	8	4	28	1			1.77	2	1	-	-	1.8	2.1	3.5	100	-	-	-	52
6ME-01	3.81	3.65	-	-	-	20	4	-	68	4	16	-	32	1			0.82	1	9	1.0	1.5	0.8	-	-	100	-	-	-	16	
6ME-02	3.44	2.46	-	-	-	24	-	-	80	4	4	-	44	1				10	0	-	-	-	5.3	11.7	88	-	4	8	*	
Minor Scheme (Hydrological Group)	I	3.86	-	-	0.54	-	10	6	3	54	7	4	6	2	8	0.63	0.12	0.32	12	0	1.0	0.7	0.9	2.1	0.9	79	1	19	2	58
	II	4.01	3.18	2.18	0.67	8.27	36	-	3	57	-	-	52	-	8	0.26	0.06	0.18	11	0	-	0.3	2.1	2.7	1.6	74	-	23	3	50
	III	3.75	3.69	2.52	1.23	-	30	2	-	86	8	6	72	2	10	0.39	0.03	0.13	19	0	-	-	1.2	4.0	1.8	70	3	25	2	55
	IV	2.83	2.88	-	1.28	5.25	7	12	-	48	-	-	61	3	9	0.49	0.16	0.30	7	4	-	-	1.1	1.2	2.8	76	-	24	-	74
	V	3.09	3.00	-	1.16	8.84	56	3	1	80	6	5	-	37	10	0.28	0.02	0.08	11	1	1.5	-	2.0	2.3	3.5	91	-	7	2	73
	VI	3.18	4.57	0.28	0.66	-	23	13	1	80	4	1	15	7	11	0.40	0.07	0.21	21	13	0.4	0.6	2.0	1.7	-	77	2	14	7	41
	VII	3.16	4.40	0.22	0.56	-	74	1	1	77	8	3	87	7	10	0.64	0.06	0.22	11	8	0.5	-	0.3	2.8	1.5	81	2	14	3	36
	VIII	3.80	4.34	0.74	0.21	-	40	6	4	82	11	6	2	28	10	0.35	0.10	0.20	18	0	0.5	0.4	2.6	2.4	-	90	1	8	1	37
	IX	2.75	2.87	-	1.94	-	35	5	3	88	10	3	-	45	4	0.28	0.08	0.17	5	0	-	1.4	3.0	5.0	0.4	97	-	3	-	45
Major	4.10	3.84	0.91	0.64	-	5	7	4	66	5	5	19	9	8			29.15	192	643	0.3	0.7	3.9	3.7	2.6	88	2	7	3	62	
Medium	3.59	3.28	0.68	0.58	6.45	17	2	1	70	4	3	37	11	12			3.82	38	49	0.4	1.8	1.7	2.7	2.2	84	1	12	3	43	
Minor	3.41	3.51	0.76	0.91	8.12	36	5	2	73	6	3	35	13	80			0.20	115	25	0.4	0.4	1.7	2.7	1.4	81	1	16	2	52	
All Total	3.49	3.52	0.77	0.85	7.96	31	5	2	72	6	3	34	12	100			2.94	345	717	0.4	1.1	2.3	2.9	2.0	82	1	14	2	52	
Remarks	Source: Questionnaire Survey						1998/1999 Maha season								D&F: D- & F-canal					Source: Questionnaire Survey in 1999. * No data										

Table 5.1.1 Present Condition of 100 Irrigation Schemes (4/10)

Code No.		Agricultural Extension											Credits													
		Crop cultivation								Livestock			Did you obtain any credit up to now ?			Average loan amount of whole sample			Needs of credits						Difficulties in obtaining credit	
		Consultations with the agricultural extension staff (the past one year)			Contents of extension					Extension services from veterinary extension officer(the past one year)									Purpose							
					Yes	No	N.A.	Improved seeds	Fertilizer application				Insecticide use	Changes cultivation practices	Other	Yes	No	N.A.	Yes	For crop cultivation	For purchasing tractor, farm expenses	Others	No	NA	Yes	No
Major Scheme	1MA-01	56%	36%	8%	26%	36%	36%	-	1%	16%	50%	34%	28%	48%	24%	5,580	82%	(61%)	(26%)	(3%)	(11%)	14%	4%	40%	60%	
	1MA-02	64%	28%	8%	24%	37%	37%	-	1%	12%	52%	36%	34%	52%	14%	9,360	80%	(70%)	(10%)	(5%)	(15%)	12%	8%	44%	56%	
	1MA-03	30%	64%	6%	27%	39%	29%	-	5%	16%	50%	34%	20%	70%	10%	3,890	66%	(63%)	(14%)	(3%)	(20%)	30%	4%	30%	70%	
	2MA-01	44%	52%	4%	31%	35%	34%	-	-	14%	76%	10%	32%	52%	16%	5,170	80%	(55%)	(34%)	-	(11%)	20%	-	54%	46%	
	4MA-01	42%	56%	2%	19%	32%	32%	14%	3%	12%	80%	8%	14%	58%	28%	3,900	50%	(56%)	(26%)	(15%)	(4%)	50%	-	62%	38%	
	4MA-02	36%	60%	4%	23%	31%	34%	11%	-	4%	94%	2%	18%	70%	12%	1,560	68%	(64%)	(24%)	(6%)	(6%)	30%	2%	80%	20%	
	4MA-03	38%	62%	-	18%	29%	34%	16%	3%	2%	94%	4%	8%	82%	10%	720	74%	(61%)	(15%)	(15%)	(10%)	26%	-	76%	24%	
5MA-01	46%	54%	-	26%	30%	28%	9%	9%	8%	88%	4%	22%	78%	-	3,160	54%	(31%)	(38%)	(21%)	(10%)	46%	-	86%	14%		
Medium Scheme	1ME-01	56%	36%	8%	26%	33%	41%	-	-	4%	56%	40%	16%	52%	32%	880	72%	(83%)	-	-	(17%)	28%	-	40%	60%	
	1ME-02	8%	92%	-	-	-	100%	-	-	4%	64%	32%	24%	48%	28%	1,420	88%	(61%)	(35%)	-	(4%)	12%	-	68%	32%	
	1ME-03	-	96%	4%	-	-	-	-	-	28%	48%	24%	4%	68%	28%	3,800	72%	(75%)	(15%)	-	(10%)	16%	12%	60%	40%	
	1ME-04	44%	52%	4%	23%	35%	35%	-	6%	20%	68%	12%	16%	72%	12%	120	72%	(56%)	(28%)	-	(17%)	20%	8%	52%	48%	
	1ME-05	16%	84%	-	20%	30%	30%	-	20%	4%	68%	28%	16%	68%	16%	840	76%	(74%)	(16%)	-	(11%)	20%	4%	44%	56%	
	1ME-06	60%	28%	12%	32%	32%	35%	-	-	12%	72%	16%	8%	88%	4%	800	84%	(71%)	(29%)	-	-	16%	-	48%	52%	
	2ME-01	36%	64%	-	33%	33%	29%	-	5%	-	80%	20%	16%	80%	4%	1,610	84%	(67%)	(24%)	-	(10%)	16%	-	44%	56%	
	4ME-01	32%	68%	-	31%	35%	35%	-	-	4%	92%	4%	-	92%	8%	200	44%	(55%)	(27%)	-	(18%)	56%	-	60%	40%	
	4ME-02	36%	64%	-	28%	36%	36%	-	-	20%	80%	-	-	100%	-	-	68%	(44%)	(25%)	-	(31%)	28%	4%	76%	24%	
	5ME-01	28%	72%	-	27%	27%	27%	13%	7%	20%	76%	4%	-	96%	4%	-	56%	(44%)	(13%)	(19%)	(25%)	44%	-	76%	24%	
6ME-01	64%	36%	-	23%	34%	34%	6%	3%	28%	72%	-	16%	80%	4%	2,080	56%	(35%)	(29%)	-	(35%)	44%	-	76%	24%		
6ME-02	48%	48%	4%	29%	29%	29%	6%	6%	32%	68%	-	20%	76%	4%	5,850	56%	(35%)	(12%)	(18%)	(35%)	44%	-	76%	24%		
Minor Scheme (Hydrological Group)	I	16%	80%	4%	10%	18%	20%	-	2%	23%	54%	24%	13%	58%	30%	2,169	68%	(75%)	(23%)	-	(2%)	28%	5%	49%	51%	
	II	25%	69%	6%	10%	18%	37%	-	10%	1%	63%	36%	15%	58%	28%	1,103	58%	(74%)	(11%)	(2%)	(13%)	36%	6%	48%	53%	
	III	34%	64%	2%	22%	31%	34%	-	3%	14%	46%	40%	15%	60%	25%	1,317	75%	(69%)	(16%)	(7%)	(8%)	21%	4%	46%	54%	
	IV	31%	67%	2%	22%	31%	43%	1%	4%	24%	61%	14%	13%	73%	13%	433	64%	(63%)	(25%)	(3%)	(8%)	36%	-	37%	63%	
	V	45%	51%	4%	23%	30%	27%	5%	14%	27%	73%	-	13%	87%	-	2,495	56%	(39%)	(35%)	(12%)	(14%)	44%	-	80%	20%	
	VI	31%	58%	11%	32%	29%	30%	3%	7%	15%	53%	32%	5%	40%	55%	622	59%	(70%)	(7%)	(7%)	(16%)	25%	16%	56%	44%	
	VII	43%	57%	-	25%	31%	28%	12%	3%	18%	81%	1%	13%	85%	2%	640	64%	(56%)	(26%)	(12%)	(6%)	36%	-	78%	22%	
	VIII	30%	70%	-	26%	31%	29%	13%	1%	21%	78%	1%	7%	93%	-	1,120	58%	(42%)	(24%)	(12%)	(22%)	42%	-	74%	26%	
	IX	68%	33%	-	17%	38%	35%	8%	2%	38%	63%	-	30%	70%	-	6,525	48%	(40%)	(34%)	(3%)	(23%)	53%	-	75%	25%	
Major		45%	52%	4%	24%	34%	33%	6%	3%	11%	73%	17%	22%	64%	14%	4,168	69%	(57%)	(23%)	(8%)	(11%)	29%	2%	59%	41%	
Medium		36%	62%	3%	23%	27%	36%	2%	4%	15%	70%	15%	11%	77%	12%	1,467	69%	(58%)	(21%)	(3%)	(18%)	29%	2%	60%	40%	
Minor		34%	62%	4%	22%	28%	31%	5%	5%	19%	64%	17%	12%	69%	18%	1,484	62%	(60%)	(22%)	(7%)	(12%)	34%	4%	60%	40%	
All Total		35%	61%	3%	22%	29%	32%	5%	5%	18%	65%	17%	13%	70%	17%	1,697	63%	(59%)	(22%)	(7%)	(12%)	33%	4%	60%	40%	
Remarks		N.A.: Now answer Source: Questionnaire Survey in 1999											N.A.: Now answer Source: Questionnaire Survey in 1999													

Table 5.1.1 Present Condition of 100 Irrigation Schemes (6/10)

Code No.	Farmers' Organisation (FO)											O&M of Irrigation Facilities																					
	Total No. of FO (No.)	No. of FO Surveyed (No.)	Total Member	Average Member/ FO	Joining Ratio (%)	Registration		Cooperative purchasing (past 3 years)			Coop. Shipping - Paddy (3 years) (time)	Kanna Meeting				Present Farmers' Involvement in O&M Works																	
						56A (%)	56B (%)	Seed paddy (time)	Ferti- lizer (time)	Cemi- cals (time)		Avail- able (%)	Participation				Collecting ISC				O&M of Main & Branch				O&M of D- & F- Canals				Irrigation Rotation				
													<25 %	25- 50%	50- 75%	75- 100 %	Active	Inactive	Non	NA	Active	Inactive	Non	NA	Active	Inactive	Non	NA	Active	Inactive	Non	NA	
Major Scheme	1MA-01	15	10	1,724	172	100	90	3.0	3.2	0.4	-	100	-	-	-	100	-	-	100	-	100	-	-	-	100	-	-	-	100	-	-	-	
	1MA-02	6	6	281	47	100	33	0.5	3.3	0.3	0.5	100	-	-	-	100	17	17	67	-	100	-	-	-	83	17	-	-	83	17	-	-	
	1MA-03	3	3	177	59	84	100	-	1.7	1.3	0.7	-	100	-	-	-	100	-	-	100	-	67	33	-	-	100	-	-	-	100	-	-	-
	2MA-01	56	13	2,043	157	100	46	2.3	1.8	1.3	-	100	-	8	8	85	15	15	69	-	-	23	69	8	54	46	-	-	92	8	-	-	
	4MA-01	} 20	7	908	130	63	100	43	-	-	1.0	-	100	-	43	-	57	14	71	14	-	-	-	100	-	43	57	-	-	100	-	-	-
	4MA-02		5	400	80	58	100	60	-	1.3	1.3	2.0	100	-	20	-	80	-	80	20	-	-	40	60	-	20	80	-	-	100	-	-	-
	4MA-03		4	336	84	47	100	50	-	-	-	-	100	-	25	-	75	-	100	-	-	-	25	50	25	-	50	50	-	-	100	-	-
5MA-01	11	10	2,245	225	54	100	100	4.5	1.0	-	1.5	100	-	40	10	50	40	40	20	-	-	10	60	20	10	50	50	-	-	100	-	-	-
Medium Scheme	1ME-01	1	1	64	64	74	100	-	-	1.3	-	100	-	-	-	100	-	-	100	-	100	-	-	-	100	-	-	-	100	-	-	-	
	1ME-02	1	1	35	35	58	100	-	-	-	-	100	-	-	-	100	-	-	100	-	-	100	-	-	-	100	-	-	-	-	100	-	-
	1ME-03	1	1	50	50	25	100	-	-	-	-	100	-	100	-	-	-	-	100	-	-	-	-	100	-	100	-	-	-	100	-	-	
	1ME-04	1	1	65	65	68	100	-	3.0	3.0	3.0	-	100	-	100	-	-	-	100	-	-	-	-	100	-	100	-	-	-	100	-	-	
	1ME-05	1	1	92	92	15	100	-	-	2.0	-	-	100	-	-	-	100	-	-	100	-	-	-	100	100	-	-	-	100	-	-	-	
	1ME-06	1	1	45	45	31	100	-	6.0	6.0	-	-	100	-	-	-	100	-	-	100	-	-	100	-	-	-	100	-	-	-	100	-	-
	2ME-01	*																															
	4ME-01	1	1	172	172	57	100	-	-	-	-	-	100	-	-	100	-	100	-	-	-	100	-	-	-	100	-	-	-	100	-	-	-
	4ME-02	3	3	176	59	61	67	-	-	-	-	-	100	-	100	-	-	-	33	67	-	-	100	-	-	-	67	-	33	100	-	-	-
	5ME-01	1	1	166	166	30	100	-	3.0	-	-	-	100	-	100	-	-	-	100	-	-	-	100	-	100	-	-	-	100	-	-	-	
6ME-01	4	2	141	71	38	100	-	1.0	3.0	-	-	100	-	-	-	100	-	50	50	-	-	50	50	-	-	-	100	-	-	100	-	-	-
6ME-02	3	3	274	91	101	100	-	0.7	2.0	-	-	100	-	33	33	33	67	33	-	-	33	67	-	-	67	33	-	-	33	67	-	-	
Minor Scheme (Hydrological Group)	I	6	6	279	47	40	100	-	-	-	-	100	25	13	-	63	-	-	100	-	67	-	-	33	83	-	-	17	83	17	-	-	
	II	8	8	484	61	51	100	-	0.3	0.3	1.0	-	100	-	25	25	50	-	-	100	-	-	-	100	25	38	-	38	50	25	-	25	
	III	10	10	875	88	76	100	-	0.1	0.4	0.1	-	100	-	50	10	40	10	10	80	-	-	-	100	20	40	-	40	50	30	20	-	
	IV	9	9	423	47	65	89	-	-	-	-	-	100	-	22	33	44	-	11	89	-	-	-	33	67	33	11	11	44	56	33	11	-
	V	10	10	833	83	56	100	-	-	0.4	-	-	90	10	30	20	40	-	-	100	-	40	-	10	50	30	30	10	30	50	20	30	-
	VI	11	11	541	49	62	100	27	1.2	1.6	1.2	-	100	9	27	45	18	27	9	64	-	45	9	36	9	9	-	55	36	91	9	-	-
	VII	10	10	634	63	66	80	-	1.2	1.3	1.3	-	100	10	60	10	20	20	40	40	-	60	30	-	10	10	-	-	90	80	-	10	10
	VIII	10	10	584	58	51	100	10	2.8	2.8	2.4	-	100	20	40	30	10	10	40	50	-	60	30	10	-	-	10	20	70	90	10	-	-
	IX	4	4	296	74	28	100	25	-	-	-	-	100	-	25	25	50	75	25	-	-	50	50	-	-	25	25	-	50	75	25	-	-
Major	111	58	8,114	140	62	100	60	1.5	1.5	0.6	0.5	100	-	17	3	79	14	34	52	-	34	24	38	3	62	38	-	-	97	3	-	-	
Medium	18	16	1,280	80	43	94	-	1.1	1.4	0.3	-	100	-	44	13	44	13	25	63	-	19	50	13	19	31	56	6	6	63	31	6	-	
Minor	78	78	4,949	63	55	96	6	0.6	0.8	0.7	-	99	9	34	23	35	13	15	72	-	35	12	12	42	23	17	13	47	69	18	9	4	
All Total	207	152	14,343	94	57	97	26	1.1	1.2	0.5	0.1	99	5	29	14	53	13	24	63	-	33	20	22	25	39	29	7	25	79	14	5	2	
Remarks	Coop. purchasing under guidance of ASC, and not FOs' own activities. Figures indicate times per FO. * Part of Rajangana scheme (2MA-01).											Source: Inventory Survey in 1999. NA: No answer																					

Table 5.1.1 Present Condition of 100 Irrigation Schemes (8/10)

Code No.		Gender (Role of Women in Living)																		Farmers' Intension for Crop Cultivation																				
		Selling Farm Products			Managing Farm Income			Transportation of Drinking Water					Collecting of Firewoods					Energy for Cooking		Irrigated Land																				
		M	F	B	M	F	B	M	F	B	Dis-tance (km)	Time (time/day)	M	F	B	Dis-tance (km)	Time (time/week)	Fire-wood (%)	Others (%)	Maha					Yala															
																				Paddy	Maize	Cow pea	Chillies	Red onion	Paddy	Maize	Soybean	Black gram	Green gram	Cow pea	Ground nut	Sesame	Chillies	Red onion	B. Onion					
(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(km)	(day)	(%)	(%)	(%)	(km)	(week)	(%)	(%)																							
Major Scheme	1MA-01	88	-	12	39	20	41	7	81	12	0.1	3.5	6	59	35	2.0	3.6	96	4																					
	1MA-02	88	4	8	34	12	54	9	77	14	0.4	3.7	7	68	24	0.7	2.4	92	8																					
	1MA-03	91	4	4	31	29	40	5	79	16	-	3.4	17	71	13	1.1	1.8	84	16																					
	2MA-01	92	-	8	36	12	52	17	74	9	0.1	3.6	9	68	24	3.0	1.1	100	-																					
	4MA-01	96	2	2	31	13	56	5	93	2	0.2	3.2	5	93	2	1.0	2.8	96	4																					
	4MA-02	90	2	8	35	13	52	2	80	18	0.2	4.0	2	86	12	-	2.8	98	2																					
	4MA-03	90	-	10	24	10	66	-	85	15	0.2	4.9	2	75	23	1.0	2.4	98	2																					
	5MA-01	88	10	2	36	24	40	6	82	12	0.7	3.4	4	86	10	-	3.1	91	9																					
Medium Scheme	1ME-01	92	-	8	28	8	64	9	82	9	0.3	3.1	5	77	18	1.5	2.0	96	4																					
	1ME-02	92	-	8	12	16	72	5	73	23	0.3	4.4	5	77	18	1.0	2.0	100	-																					
	1ME-03	80	-	20	20	20	60	4	76	20	0.2	3.5	4	57	39	1.2	1.6	96	4																					
	1ME-04	80	-	20	24	8	68	23	55	23	0.2	3.0	24	52	24	0.9	1.9	100	-																					
	1ME-05	84	8	8	28	24	48	4	83	13	0.2	2.7	5	67	29	1.2	1.4	76	24																					
	1ME-06	96	-	4	48	20	32	5	77	18	0.1	3.2	14	55	32	4.0	1.5	93	7																					
	2ME-01	84	-	16	29	4	67	24	52	24	0.3	3.3	16	47	37	3.3	2.0	93	7																					
	4ME-01	87	-	13	12	8	80	-	84	16	0.1	3.7	-	74	26	1.4	3.0	96	4																					
	4ME-02	96	4	-	36	8	56	12	68	20	0.7	3.0	4	64	32	1.0	3.1	96	4																					
	5ME-01	88	-	13	20	16	64	4	68	28	0.1	3.2	4	80	16	0.6	3.2	100	-																					
	6ME-01	92	-	8	36	-	64	4	83	13	0.1	3.2	4	75	21	0.3	2.9	100	-																					
6ME-02	84	4	12	36	8	56	4	67	29	0.1	3.2	4	56	40	2.1	3.2	100	-																						
Minor Scheme (Hydrological Group)	I	89	3	8	28	24	48	9	76	16	0.2	3.3	8	63	29	1.3	2.1	91	9																					
	II	88	1	11	28	25	48	7	78	16	1.6	3.7	18	57	25	1.0	1.9	99	1																					
	III	81	2	17	37	22	40	5	83	11	1.1	3.5	7	69	23	1.3	1.8	99	1																					
	IV	87	-	13	37	13	50	5	78	17	0.3	4.6	8	54	38	0.9	2.2	96	4																					
	V	83	2	15	25	7	68	1	78	21	2.7	3.3	1	75	24	0.3	3.1	95	5																					
	VI	88	2	10	33	16	51	3	83	15	3.8	3.9	3	86	11	0.8	2.4	98	2																					
	VII	85	2	12	28	15	57	3	76	20	3.5	3.5	2	81	17	1.0	3.3	100	-																					
	VIII	84	-	16	29	16	55	6	79	15	0.2	3.3	3	79	18	0.7	3.0	97	3																					
	IX	87	-	13	33	10	58	3	79	18	1.1	3.4	3	72	25	0.5	3.2	98	3																					
Major	90	3	7	33	17	50	6	81	12	0.2	3.7	6	76	18	1.1	2.5	94	6	100%	38%	38%	50%	38%	88%	38%	38%	38%	50%	38%	38%	50%	38%	38%	50%	38%	25%				
Medium	88	1	11	27	12	61	8	72	20	0.2	3.3	7	65	28	1.5	2.3	95	5	100%	17%	8%	17%	17%	83%	33%	33%	33%	33%	33%	50%	17%	58%	25%	33%						
Minor	86	1	13	31	17	53	4	79	16	1.7	3.6	6	72	23	0.9	2.5	97	3	100%	33%	44%	78%	44%	###	67%	44%	67%	67%	67%	33%	11%	89%	78%	67%						
All Total	86	1	12	31	16	53	5	78	16	1.4	3.6	6	71	23	1.0	2.5	97	3	100%	28%	28%	45%	31%	90%	45%	38%	45%	48%	45%	41%	21%	66%	45%	41%						
Remarks	M: Male F: Female B: Both Source: Questionnaire Survey in 1999																		Source: RRA carried out by the Study Team in 1999.																					

Table 5.1.1 Present Condition of 100 Irrigation Schemes (9/10)

Code No.		Farmers' Attitude for O&M (Answer of Individual Farmers)																												
		Are you satisfied with quantity of water ?			Quantity of irri. water is necessary to increase.			Who should maintain irrigation facilities ?							Farmers have responsibility for O&M.			If you pay irrigation service charge, how much can you pay in the future? (Rs./acre/season)					If FO collects ISC, will you agree to pay ?			Do you need rehabilitation of irri. facilities ?				
		Yes	No	NA	Yes	No	NA	Irrigation Department	IMD	DAS	Provincial Council	Divisional Secretariat	Farmers Organization	Community of village	Other	Yes	No	NA	Non	25-50	50-100	100-150	150-200	200-250	Yes	No	NA	Yes	No	NA
		(%)	(%)	(%)	(%)	(%)	(%)									(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Major Scheme	1MA-01	88	12	-	56	44	-	20	3	-	-	-	53	25	-	78	6	16	7	60	16	9	7	2	84	16	-	98	2	-
	1MA-02	83	17	-	58	38	4	10	12	-	-	-	71	6	-	84	2	14	5	65	30	-	-	-	88	10	2	88	12	-
	1MA-03	86	14	-	64	30	6	26	2	-	-	-	57	14	-	78	4	18	12	54	34	-	-	-	78	18	4	94	6	-
	2MA-01	84	16	-	58	42	-	31	6	-	-	-	47	16	-	96	-	4	10	49	41	-	-	-	76	24	-	98	2	-
	4MA-01	86	12	2	64	36	-	31	11	3	-	1	38	17	-	92	4	4	29	55	17	-	-	-	52	46	2	82	10	8
	4MA-02	84	16	-	90	10	-	39	7	6	-	-	35	14	-	90	2	8	23	60	14	2	-	-	54	46	-	96	4	-
	4MA-03	78	22	-	92	6	2	41	4	1	-	1	37	13	1	86	2	12	27	59	11	3	-	-	56	44	-	100	-	-
5MA-01	66	34	-	86	14	-	31	4	3	-	-	52	10	-	96	-	4	21	69	8	-	2	-	76	24	-	96	2	2	
Medium Scheme	1ME-01	96	4	-	52	48	-	38	5	-	-	-	33	24	-	80	8	12	8	63	13	13	4	-	84	12	4	96	4	-
	1ME-02	76	24	-	64	24	12	10	-	-	-	-	50	40	-	56	20	24	8	77	15	-	-	-	100	-	-	100	-	-
	1ME-03	76	24	-	84	16	-	29	-	-	-	-	53	18	-	60	8	32	8	77	8	8	-	-	100	-	-	100	-	-
	1ME-04	56	44	-	92	4	4	32	4	-	-	-	48	16	-	88	-	12	8	67	25	-	-	-	88	8	4	96	4	-
	1ME-05	52	48	-	100	-	-	8	-	-	8	-	62	23	-	72	4	24	8	54	33	-	-	4	92	8	-	96	-	4
	1ME-06	20	80	-	96	4	-	21	11	-	-	-	63	5	-	92	-	8	4	70	26	-	-	-	92	8	-	100	-	-
	2ME-01	72	28	-	64	36	-	32	-	-	-	-	68	-	-	100	-	-	4	57	17	22	-	-	84	16	-	96	4	-
	4ME-01	56	44	-	92	4	4	23	-	9	-	-	45	20	2	100	-	-	19	76	5	-	-	-	76	24	-	100	-	-
	4ME-02	24	76	-	100	-	-	23	-	15	-	-	44	18	-	88	-	12	13	88	-	-	-	-	84	16	-	100	-	-
	5ME-01	72	28	-	84	12	4	42	-	3	-	-	36	18	-	96	-	4	18	82	-	-	-	-	56	44	-	96	4	-
6ME-01	72	24	4	88	12	-	12	6	6	-	6	58	9	3	84	8	8	10	76	14	-	-	-	72	28	-	96	4	-	
6ME-02	64	36	-	84	12	4	16	3	8	-	-	59	14	-	100	-	-	5	59	32	5	-	-	84	16	-	88	12	-	
Minor Scheme (Hydrological Group)	I	48	53	-	89	5	6	8	-	6	5	8	45	26	2	69	16	15	18	56	17	4	-	5	93	8	-	90	4	6
	II	26	68	6	90	6	4	7	13	-	-	2	40	38	-	78	13	10	13	45	24	16	1	-	80	14	6	79	15	6
	III	35	65	-	99	-	1	7	4	-	1	-	54	34	-	78	9	13	13	54	20	8	3	3	91	8	1	95	3	2
	IV	30	69	1	93	4	2	11	19	15	-	-	47	8	-	92	3	4	10	59	29	1	1	-	93	7	-	97	3	-
	V	38	62	-	97	2	1	11	3	17	-	1	51	16	1	94	5	1	14	77	9	-	-	-	73	27	-	99	-	1
	VI	58	36	6	83	11	6	14	2	6	6	2	52	18	-	73	4	24	14	68	10	6	-	2	64	25	11	84	7	9
	VII	24	76	-	98	1	1	21	1	9	-	-	47	19	3	94	3	3	23	70	7	-	-	-	73	27	-	99	1	-
	VIII	60	39	1	96	4	-	15	-	8	-	-	53	24	-	94	2	4	17	73	9	-	1	-	66	34	-	94	6	-
	IX	50	48	3	88	10	3	11	2	6	-	2	56	24	-	98	-	3	9	76	11	3	-	-	70	28	3	93	5	3
Major	82	18	-	71	28	2	29	6	2	-	0	49	14	0.2	88	3	10	17	59	21	2	1	0.3	71	29	1	94	5	1	
Medium	61	38	0	83	14	2	24	2	3	1	1	52	17	0.4	85	4	11	9	70	16	4	0.3	0.3	84	15	1	97	3	0	
Minor	41	57	2	93	5	3	12	5	8	2	2	49	23	1	85	6	9	15	64	15	4	1	1	78	20	2	92	5	3	
All Total	47	52	2	90	8	3	15	4	7	1	1	50	21	1	85	6	9	14	64	16	4	1	1	78	20	2	93	5	3	
Remarks	NA: No answer IMD: Irrigation Management Division DAS: Department of Agrarian Service Source: Questionnaire Survey in 1999 ISC: Irrigation Service Charge																													

Table 5.1.1 Present Condition of 100 Irrigation Schemes (10/10)

Code No.		Farmers' Request for Development												People's Intention for Occupation														
		Repair of tank bund (%)	Construction of canal & structure (%)	2-W tractor (%)	Training for technology (%)	Providing farm inputs (%)	Providing marketing facilities (%)	Timely official assistance (%)	Rehabilitate tank & all structure (%)	Provide agri. Equipment (%)	Provide credit facilities (%)	Improve farm roads (%)	Storage facilities & meeting hall (%)	Animal husbandry	Brick making	Sewing	Rice mills	Carpentry	Handicraft	Inland fishery	Poultry farming	Motor mechanic	Coconut based industry	Food processing	Masonry	Agriculture (banana & OFC)	Electronics	Trade & business
Major Scheme	1MA-01	-	70	-	-	10	20	10	30	10	-	60	-															
	1MA-02	-	83	50	-	33	-	-	17	17	-	50	17															
	1MA-03	-	67	33	-	67	-	-	-	-	-	33	67															
	2MA-01	8	100	15	31	15	-	15	-	31	-	15	31															
	4MA-01	-	29	-	-	14	-	-	29	43	14	-	14															
	4MA-02	-	80	-	-	-	20	40	20	80	20	20	20															
	4MA-03	-	25	-	25	25	75	50	-	25	-	25	75															
	5MA-01	10	60	30	10	20	20	10	10	60	-	-	20															
Medium Scheme	1ME-01	100	100	-	-	-	-	-	-	-	-	-	-															
	1ME-02	-	100	100	100	-	-	100	-	-	-	-	-															
	1ME-03	-	100	100	-	100	-	-	-	-	-	-	-															
	1ME-04	100	100	-	-	-	-	-	-	-	-	-	-															
	1ME-05	-	100	-	-	-	-	-	100	-	-	-	-															
	1ME-06	-	-	100	-	-	-	-	100	-	-	-	100															
	2ME-01	-	-	-	-	-	-	-	-	-	-	-	-															
	4ME-01	100	100	-	-	-	-	-	-	-	-	-	-															
	4ME-02	-	100	-	-	-	100	33	-	33	-	-	-															
	5ME-01	-	100	-	-	-	-	-	100	100	-	-	100															
6ME-01	-	50	-	-	-	-	-	-	50	50	50	-																
6ME-02	-	33	-	33	-	67	-	-	67	-	-	33																
Minor Scheme (Hydrological Group)	I	50	67	33	-	-	-	-	50	17	-	17	-															
	II	25	63	63	63	50	13	-	25	-	-	-	-															
	III	40	40	40	10	50	-	10	30	30	-	-	-															
	IV	-	56	56	22	22	-	22	44	22	22	-	-															
	V	30	60	20	10	40	-	10	70	20	-	-	10															
	VI	-	27	18	18	-	36	9	27	27	9	-	18															
	VII	10	70	-	30	10	-	20	40	40	30	10	50															
	VIII	-	40	10	-	10	20	10	60	70	50	-	10															
	IX	-	50	-	25	50	50	-	75	50	25	-	25															
Major	3	69	16	10	19	14	14	14	34	3	24	24	75%	88%	63%	63%	50%	63%	63%	63%	25%	38%	50%	50%	25%	13%	25%	
Medium	19	75	19	13	6	31	13	19	31	6	6	19	83%	58%	58%	17%	25%	42%	17%	25%	33%	17%	8%	17%	-	8%	8%	
Minor	17	51	27	19	24	12	10	45	31	15	3	13	89%	100%	67%	89%	89%	33%	33%	22%	44%	44%	22%	-	33%	11%	22%	
All Total	12	61	22	15	20	14	12	30	32	10	11	18	83%	79%	62%	52%	52%	45%	34%	34%	34%	31%	24%	21%	17%	10%	17%	
Remarks	Answers obtained from FO Leaders. Source: Inventory Survey in 1999.												Source: RRA Workshop in 1999.															

Table 5.2.1 Hydrological Characteristics of Minor Irrigation Schemes

Code No.	Scheme Name	Catchment Area (km2)	Total Storage Capacity (MCM)	Reservoir Area (ha)	Commanding Area	Code No.	Scheme Name	Catchment Area (km2)	Total Storage Capacity (MCM)	Reservoir Area (ha)	Commanding Area
1MI-01	ILLUPPUKANNIYA	1.31	0.23	22.00	22.00	3MI-06	BATHALAKOTUWA WEWA	0.53	0.02	1.66	8.80
1MI-02	NELLUMKANNIYA WEWA	1.41	0.26	20.25	23.00	3MI-07	DAMUNUMULLA GAMA	1.46	0.06	5.03	24.00
1MI-03	THARIYAN KULAMA	3.39	0.51	32.36	60.00	3MI-08	YATIGALPOTTA GAMA	2.13	0.06	5.51	10.50
1MI-04	KUDA KALATTAWA WEWA	1.34	0.13	13.50	22.00	3MI-09	KUDAWEWA	1.94	0.09	8.52	8.00
1MI-05	KAMMALAK KULAMA	1.53	0.22	18.75	36.00	3MI-10	DISAWAGE WEWA	1.94	0.11	10.77	26.00
1MI-06	HALMILLAWE WEWA	3.52	0.45	41.22	55.00	4MI-01	PAHALA EMOGAMA WEWA	1.17	0.17	16.19	19.40
1MI-07	MAHA KALATTAWE WEWA	3.50	0.63	52.50	73.00	4MI-02	GALKETIYAGAMA WEWA	0.91	0.13	8.15	15.00
1MI-08	BANDIALAN KULAMA	1.14	0.12	9.00	12.00	4MI-03	MAHA EMOGAMA WEWA	2.83	0.40	32.78	50.00
1MI-09	IHALA AMANAKATTUWA	1.21	0.11	12.50	21.00	4MI-04	KADURUWEWA MAHAWEWA	3.64	0.23	14.20	75.00
1MI-10	WALAGAMBAHUWA WEWA	1.46	0.25	2.05	24.00	4MI-05	KUMBUKKADAWELA WEWA	0.65	0.13	12.00	14.00
1MI-11	PAHALA WEWA	0.93	0.13	15.50	15.00	4MI-06	EHETUWEWA	2.74	0.39	33.20	46.53
1MI-12	MARIKKARAGAMA WEWA	1.46	0.06	5.00	24.00	4MI-07	ALUTHWEWA MAHAWEWA	0.65	0.07	7.15	7.70
1MI-13	PAINDIKULAMA WEWA	3.40	0.26	15.00	60.00	4MI-08	GALKADAWALA WEWA	1.70	0.20	20.10	22.27
1MI-14	MAWATHA WEWA	1.19	0.22	14.00	32.00	4MI-09	RATHNADIUL WEWA	1.81	0.26	21.00	34.00
1MI-15	SEMBUK KULAMA	2.19	0.18	18.00	36.00	4MI-10	MANNAKKULAGAMA WEWA	1.14	0.18	16.05	20.23
1MI-16	PUNCHI KULAMA	3.38	0.21	16.00	66.00	4MI-11	EREYANA WEWA	1.18	0.13	15.20	13.75
1MI-17	GALLEWA	1.95	0.18	16.25	30.00	4MI-12	KALLANCHIYA WEWA	1.74	0.06	6.07	8.10
1MI-18	GALLEWA ULAKULAMA	1.70	0.07	4.50	28.00	4MI-13	ARTHIKULAMA	2.33	0.12	12.14	12.10
1MI-19	KIRIAMUNAKOLAWEWA	0.36	0.06	5.75	14.00	4MI-14	MAILEWA WEWA	2.85	0.15	13.30	22.00
1MI-20	KUTTIKULAMA WEWA	0.97	0.12	12.50	16.00	4MI-15	IHALAGAMAWEWA	4.22	0.22	20.26	29.00
1MI-21	INDIGAHA WEWA	0.49	0.03	3.25	8.00	4MI-16	THAMBARE WEWA	5.26	0.17	17.60	20.20
1MI-22	MAWATHA WEWA	3.64	0.39	40.00	60.00	4MI-17	GAMEWEWA(NANNERIYA)	7.12	0.14	13.32	26.00
1MI-23	KUDAGAMA WEWA	0.97	0.03	27.50	16.00	4MI-18	MOLEWA WEWA	3.89	0.64	43.47	52.00
1MI-24	RATHMALWETIYA	0.63	0.03	7.00	34.00	4MI-19	IDDAMALPITIYA WEWA	0.29	0.10	8.47	12.00
1MI-25	SELETHTHIMADUWA WEWA	1.46	0.25	18.50	24.00	4MI-20	NOCHIYA WEWA	7.64	0.43	29.20	48.00
1MI-26	HAMMILA KULAMA	6.22	0.15	15.75	182.00	4MI-21	WANNIKUDA WEWA	1.50	0.22	18.20	30.30
2MI-01	NIKA ATTEGAMA WEWA	0.98	0.21	14.36	20.70	5MI-01	YAKADAPOTHA WEWA	0.65	0.12	11.50	14.17
2MI-02	UDANEGAMA WEWA	2.43	0.20	23.40	26.70	5MI-02	UDAGIRILLA MAHAWEWA	1.53	0.21	14.97	17.80
2MI-03	NEGAMA WEWA	3.64	0.39	21.55	57.90	5MI-03	MAHAGIRILLA MAHAWEWA	2.07	0.16	14.16	17.80
2MI-04	KALANCHIYA WEWA	1.04	0.27	16.20	28.30	5MI-04	HINDOGAMA WEWA	1.38	0.18	18.10	40.48
2MI-05	MEDAWACHCHIYA WEWA	3.37	0.49	27.30	58.70	5MI-05	KARAWDENIYAWEWA	3.04	0.11	11.03	12.00
2MI-06	MAHAOTTAPAHUWA WEWA	3.99	0.16	13.25	23.50	5MI-06	KADEWELAGEDERA WEWA	2.30	0.35	36.00	64.00
2MI-07	KANDULUGAMUWA WEWA	1.89	0.27	10.30	36.40	5MI-07	HULAWA WEWA	1.24	0.10	12.02	17.00
2MI-08	DIKWWEWA	4.74	0.38	23.80	47.30	5MI-08	KOTUWATTAWALA WEWA	2.43	0.23	18.47	26.72
2MI-09	KUMBUKWWEWA	6.79	0.36	32.88	49.80	5MI-09	WANDURESSA MAHAWEWA	1.45	0.16	13.76	24.70
3MI-01	TUTTIRIWEWA	0.41	0.08	6.75	18.61	5MI-10	THUMBULLA MAHAWEWA	2.37	0.35	23.16	36.43
3MI-02	WERAGALAWATTA WEWA	0.27	0.05	4.50	11.33	6MI-01	DIKWWEWA	2.19	0.19	14.40	21.00
3MI-03	NABADAGAHAWATTA WEWA	1.13	0.28	18.75	36.61	6MI-02	MAHAWEWA	3.33	0.28	16.19	71.00
3MI-04	NIKEWEHERA WEWA	0.81	0.03	4.55	13.20	6MI-03	THAMBUWA MAHAWEWA	1.40	0.14	9.45	30.00
3MI-05	GALAPITIYA WEWA	1.21	0.04	4.60	22.00	6MI-04	HENAWA MAHAWEWA	0.99	0.08	6.88	17.00

Table 5.2.2 Assessment of Major and Medium Irrigation Scheme (1/2)

Name of Scheme	Area (Acres)	Water Resources			Existing Condition of Facilities			
		Cultivation	Spilling	Rank	Initial Construction / Rehabilitation Project	Rank		Necessity to be rehabilitated / Others
						Tank	Canal System	
Nachchaduwa (1MA-01)	5,337	Maha 100% Yala 50%	Once 10-years	B	<ul style="list-style-type: none"> ● Tank constructed in 1906 ● Rehabilitated in 1958 ● Rehabilitated by MIRP in 1989 	A	B	<ul style="list-style-type: none"> ● Replace of Gates (sluice, regulator, turnout, etc) ● Trimming and/or reforming of main canal, feeder canal and branch canals ● Replace of screen located in outlet of feeder canal) ● Installation of measuring devices on the basis of water management plan, etc.
Thuruwila (1ME-01)	535	Maha 100% Yala 100%	Every year	A	<ul style="list-style-type: none"> ● Rehabilitated in 1989 by MIRP 	A	A	<ul style="list-style-type: none"> ● Replace of sluice gate ● Trimming of main canal and branch canals
Nuwara-wewa (1MA-02)	2,399	Maha 100% Yala 0%	Unidentified	C	<ul style="list-style-type: none"> ● Tank constructed in B.C.400 ● Tank rehabilitated in 1988 to 90 by MIRP 	A	A	<ul style="list-style-type: none"> ● Desilting from reservoir ● Trimming of main canal and branch canals ● Domestic water supply ● Installation of farm road (farmers' request) ● Installation of measuring devices on the basis of water management plan
Tissawewa (1MA-03)	1,028	Maha 100% Yala 50%	Every year	B	<ul style="list-style-type: none"> ● Tank constructed in B.C.300 ● Tank and selected facilities rehabilitated in 1987 by MIRP 	B	A	<ul style="list-style-type: none"> ● Trimming of tank bund, rip rap lining ● Replace of gates (sluice, turnout, feeder canal sluice, etc.) ● Reforming of spillway apron ● Trimming of main canal and branch canals ● Installation of measuring devices on the basis of water management plan
Maha Bunankulama (1ME-06)	221	Maha 100% Yala 15%	Unidentified	C	<ul style="list-style-type: none"> ● Ancient tank ● Tank rehabilitated and canal constructed in 1877 ● Sluice gate replaced around 30 years ago 	C	C	<ul style="list-style-type: none"> ● Desilting from reservoir, trimming of tank band ● Replace of sluice gate ● Installation of water control facilities (regulator, turnout) ● Installation of farm road (farmers' request) ● Plan of feeder canal construction for supplemental water supply from upper stream tank
Uttimaduwa (1ME-03)	210	Maha 100% Yala 100%	Every year	A	<ul style="list-style-type: none"> ● Canal constructed 70 years ago ● No rehabilitation ● Sluice gate replaced around 30 years ago 	C	C	<ul style="list-style-type: none"> ● Main canal extension (farmers' request) ● Installation of water control facilities (regulator, turnout) ● Trimming of main canal and branch canals ● Drainage canal improvement
Eru Wewa (1ME-02)	180	Maha % Yala %	Unidentified			B	B	<ul style="list-style-type: none"> ● Replace of spillway gate, turnout gate ● Trimming of main canal, feeder canal and branch canals
Periyakulama (1ME-04)	200	Maha 100% Yala 70%	Unidentified	B	<ul style="list-style-type: none"> ● Tank rehabilitated in 1973 	A	C	<ul style="list-style-type: none"> ● Trimming of tank bund ● Trimming of main canal and branch canals ● Installation of water control facilities (regulator, turnout) ● Command area expansion (farmers' request)
Maminiyawa (1ME-05)	504	Maha 100% Yala 10%	Every year	C	<ul style="list-style-type: none"> ● Sluice gate replaced in 1958 	B	C	<ul style="list-style-type: none"> ● Improvement of retaining wall for drain seepage water ● Drainage canal improvement ● Installation of anicut for utilizing drainage water ● Trimming of main canal and branch canals ● Installation of water control facilities (regulator, turnout) ● Installation of farm road (farmers' request)
Maggalle Wewa (5MA-01)	6,000	Maha 100% Yala 67%	No spilling	B	<ul style="list-style-type: none"> ● Tank constructed in 1873 ● Canal constructed in 1958 to 60 ● Tank and selected facilities rehabilitated in 1994 by ISPM 	A	A	<ul style="list-style-type: none"> ● Improvement of turnout, regulator ● Installation and improvement of farm road ● Trimming of main canal and branch canals ● Installation of measuring devices on the basis of water management plan

Table 5.2.2 Assessment of Major and Minor Irrigation Scheme (2/2)

Name of Scheme	Area (Acres)	Water Resources			Existing Condition of Facilities			
		Cultivation	Spilling	Rank	Initial Construction / Rehabilitation Project	Rank		Necessity to be rehabilitated / Others
						Tank	Canal System	
Hulugallewewa (5ME-01)	208	Maha 100% Yala 100%		A	● Tank and selected facilities rehabilitated in 1994 by ADB fund	A	A	● Desilting from reservoir
Mahanan-neriya (4ME-01)	395	Maha 100% Yala 35%	Once 3 or 4- years	B	● Tank rehabilitated in 1939	B	B	● Trimming of tank bund, rip rap lining ● Replace of turnout gate ● Improvement of access road
Maha Galgamuwa (4ME-02)	404	Maha 100% Yala 50%	Once 30- years	B	● Tank constructed in more than 100 years ago ● Some anicuts rehabilitated	B	C	● Reforming of sluice ● Installation of water control facilities (anicut) ● Canal improvement ● Feeder canal construction for supplemental water supply from upper stream tank (farmers' request)
Palukadawela (4MA-01)	2,025	Maha 100% Yala 60%	Every year	B	● Tank and selected facilities rehabilitated in 1999 by ADB fund	A	A	● Trimming of main canal and branch canals ● Reforming of culverts
Attaragallewa (4MA-02)	1,050	Maha 100% Yala 50%	Once 3 or 4- years	B	● Tank and selected facilities rehabilitated in 1998 by ADB fund	A	A	● Replace of gate (turnout, regulator) ● Feeder canal connects Attaragallewa scheme and Abakolawewa scheme
Abakolawewa (4MA-03)	1,000	Maha 100% Yala 50%	Once 3 or 4- years	B	● Tank and selected facilities rehabilitated in 1998 by ADB fund	A	A	● Feeder canal connects Attaragallewa scheme and Abakolawewa scheme
Meddeketiya (6ME-01)	300	Maha 100% Yala 100%	Every year	A	● Sluice rehabilitated in 1994 by ADB fund ● Tank and selected facilities rehabilitated in 1999 by ADB fund	A	B	● Trimming of tank bund, rip rap lining ● Improvement of anicut, regulator ● Improvement drainage system (salinity problem) ● Trimming and/or reforming of main canal and branch canals
Moragada Anicut (6ME-02)	550	Maha 100% Yala 100%	Every year	A	● Anicut constructed in 1976 ● Tank and selected facilities rehabilitated in 1998 by ADB fund	A	A	● Small repair only ● Security improvement of sluice gate lock
Rajangana (2MA-01)	16,700	Maha 100% Yala 100%	Every year	A	● Tank constructed in 1965, Canal constructed in 65 ● Upland distribution system constructed in 1974 ~ 84 ● M, D-Canal and selected facilities rehabilitated in 1985 ~ 93 by MIRP ● Upland distribution system rehabilitated in 1999 by AWRMP	B	B	● Erosion or collapse of canal side-wall specially up and down stream of appurtenant facilities such as regulator or turnout ● Replace of sluice gate (LB) ● Improvement of spillway gate (lifting problem) ● Trimming of main canal and branch canals ● Reforming of regulator or turnout ● Improvement of spillway canal, specially installation of retaining wall ● F-Canal lining improvement (seepage problem area)
Angamuwa (6ME-012)	(7,100) *1	Maha 100% Yala 100%	Every year	A	● Ancient tank ● Tank rehabilitated in 1962 ~ 65	B	A	● Replace of spill-gate ● Grouting for masonry wall of Spillway

A : Functioning or deterioration of facilities are not remarkable/ abundant

B : Selected facilities are to be rehabilitated / not abundant

C : Deterioration of facilities are remarkable or improvement is necessary urgently / restricted

*1 : This value corresponds to RB command area of Rajangana.

Table 6.2.1 Problems of Community Identified b Farmers in Each Scheme (Results of RRA Workshop)

Code No.	Workshop				Major Problems in Communities																																			
	No. of workshops	Participants			Irrigation							Rural infrastructure							Agriculture						Land			Social problems												
		Male	Female	Total	Insufficient irrigation facilities	Irrigation water shortage	No water management	No maintenance of irrigation facilities	Rehabilitation of tank and canal	Siltation of tank	Low storage capacity of tank	Construction of tank	Lack of electricity	Road improvement & less road facilities/farm road	No proper maintenance of roads	No pre-school/lack of education facilities	Lack of proper drinking water facilities	Lack of health facilities, latrines, etc.	Low income due to high production cost	Poor extension services	Not enough OFC cultivation	Marketing problems for farm inputs & outputs	Lack of transport facilities	Lack of capital	Credit facilities	Land problems / Encroachment	Lack of lands	Elephant damage	No common place (building) to hold meeting	Low income for living	Social welfare programme	Lack of vocational training	Unemployment / Unemployment for youth	Alcohol / Illegal alcohol	Political victimization					
Major Scheme	1MA-01	5	22	17	39																																			
	1MA-02	4	30	17	47																																			
	1MA-03	3	44	24	68																																			
	2MA-01	4	68	16	84																																			
	4MA-01	2	26	12	38																																			
	4MA-02	3	11	3	14																																			
	4MA-03	3	27	6	33																																			
5MA-01	4	34	36	70																																				
Medium Scheme	1ME-01	3	25	34	59																																			
	1ME-02	1	8	-	8																																			
	1ME-03	1	1	4	5																																			
	1ME-04	3	18	10	28																																			
	1ME-05	2	8	10	18																																			
	1ME-06	2	33	69	102																																			
	2ME-01	3	62	31	93																																			
	4ME-01	1	2	2	4																																			
	4ME-02	3	19	11	30																																			
	5ME-01	2	15	33	48																																			
6ME-01	2	27	2	29																																				
6ME-02	3	32	15	47																																				
Minor Scheme (Hydrological Group)	I	7	70	57	127																																			
	II	4	29	23	52																																			
	III	7	84	53	137																																			
	IV	4	30	25	55																																			
	V	5	38	15	53																																			
	VI	5	48	47	95																																			
	VII	6	96	75	171																																			
	VIII	5	78	91	169																																			
	IX	3	38	10	48																																			
Major	28	262	131	393	-	63%	25%	25%	38%	25%	-	50%	50%	50%	-	63%	25%	13%	-	25%	38%	25%	13%	-	38%	50%	50%	25%	13%	13%	63%	88%	38%	13%						
Medium	26	250	221	471	25%	75%	17%	8%	17%	8%	-	8%	42%	17%	-	-	33%	17%	8%	17%	-	25%	33%	25%	8%	17%	-	50%	-	8%	8%	33%	42%	42%	-					
Minor	46	511	396	907	11%	100%	-	-	56%	33%	11%	-	44%	22%	44%	56%	33%	22%	22%	-	56%	56%	22%	56%	44%	22%	56%	-	-	-	44%	89%	44%	11%						
All Total	100	1,023	748	1,771	14%	79%	14%	10%	31%	24%	10%	3%	45%	28%	28%	17%	48%	24%	14%	14%	7%	38%	38%	21%	21%	31%	21%	52%	7%	7%	7%	45%	69%	41%	7%					
Remarks	Source: RRA workshop in 1999.																																							

Table 6.2.2 Problems of Community Identified by Farmers (Results of RRA Workshops)

Problems Identified by Farmers (RRA Workshop)	Ratio in each scheme				Feature of Problems	Problems Analysis			
	Whole	Major	Med.	Minor		Major Irrigation Scheme	Medium Irrigation Scheme	Minor Irrigation Scheme	
Irrigation					The largest problem is 'Shortage of irrigation water' throughout the workshops. However discussions of their causes were not active, such as water management, management of facilities, rehabilitation. It is able to consider that although farmers are not so mentioned about the causes, they put all related problems in the largest problems.	<p>Low income of farm family</p> <ul style="list-style-type: none"> Low income from crop cultivation <ul style="list-style-type: none"> Shortage of irrigation water Lack of water management No rehabilit. of tank and canal <ul style="list-style-type: none"> No water management Low storage capacity of tank Siltation of tank Marketing problems for farm inputs <ul style="list-style-type: none"> Lack of transport facilities Lack of capital High production cost No active OFC cultivation Marketing problem of OFC Lack of Transport facilities Lack of Land problems /Encroachment Unemployment Lack of vocational training 	<p>Low income of farm family</p> <ul style="list-style-type: none"> Low income from crop cultivation <ul style="list-style-type: none"> Shortage of irrigation water Lack of water management No rehabilit. of tank and canal <ul style="list-style-type: none"> Lack of water management Insufficient irrigation facilities Poor extension services Marketing problems for farm inputs <ul style="list-style-type: none"> Lack of transport facilities Lack of capital Lack of credit facilities High production cost Lack of Land problems /Encroachment Unemployment Lack of vocational training 	<p>Low income of farm family</p> <ul style="list-style-type: none"> Low income from crop cultivation <ul style="list-style-type: none"> Shortage of irrigation water No rehabilit. of tank and canal <ul style="list-style-type: none"> Lack of water management Insufficient irrigation facilities Low storage capacity of tank Siltation of tank Poor extension services Marketing problems for farm <ul style="list-style-type: none"> Lack of transport facilities Lack of capital Lack of credit facilities High production cost Lack of Land problems /Encroachment Unemployment Lack of vocational training 	
1) Shortage of irrigation water	79%	63%	75%	100%					
2) Rehabilitation of tank and canal	31%	25%	17%	56%					
3) Siltation of tank	24%	38%	8%	33%					
4) Insufficient irrigation facilities	14%	-	25%	11%					
5) No water management	14%	25%	17%	-					
6) No maintenance of irrigation facilities	10%	25%	8%	-					
7) Low storage capacity of tank	10%	25%	-	11%					
8) Construction of tank	3%	-	8%	-					
Agriculture					'Low productivity' of crops was not so discussed. However problems of extension services, marketing for farm inputs & products and capital are related to cultivation of crops, therefore these problems are reflecting 'low productivity' of crops.	<p>Undeveloped rural social</p> <ul style="list-style-type: none"> Lack of drinking water Lack of electricity Lack of road/farm road <ul style="list-style-type: none"> Less road/farm road facilities No road improvement Lack of health facilities/latrines 	<p>Undeveloped rural social infrastructure</p> <ul style="list-style-type: none"> Lack of drinking water Lack of road/farm road <ul style="list-style-type: none"> Less road/farm road facilities No road improvement Lack of electricity Luck of health facilities/latrines 	<p>Undeveloped rural social infrastructure</p> <ul style="list-style-type: none"> Lack of electricity Lack of road/farm road <ul style="list-style-type: none"> Less road/farm road facilities No road improvement Lack of drinking water Luck of health facilities/latrines No pre-school/luck of education facilities 	
9) Marketing problems for farm inputs & products	38%	38%	25%	56%					
10) Lack of transport facilities	38%	25%	33%	56%					
11) Lack of capital	21%	13%	25%	22%					
12) Lack of credit facilities	21%	-	8%	56%					
13) Low income due to high production cost	14%	13%	8%	22%					
14) Poor extension services	14%	-	17%	22%					
15) Not enough OFC cultivation	7%	25%	-	-					
Land					Land problems involved: one seasonal leasing, subdivision and scattering of farm lands.	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	
16) Land problems / Encroachment	31%	38%	17%	44%					
17) Lack of lands	21%	50%	-	22%					
Rural social infrastructure					Farmers especially mentioned about 'Electricity' and 'Drinking water.' Electricity are facilitated to obtain a service line around almost villages but the construction cost is high. Therefore electrification of houses is low. Almost houses have a well but they can not use it in dry season.	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	
18) Lack of proper drinking water	48%	63%	33%	56%					
19) Lack of electricity	45%	50%	42%	44%					
20) No farm road	28%	50%	17%	22%					
21) Road improvement / less road facilities	28%	50%	-	44%					
22) Lack of health facilities, latrines, etc.	24%	25%	17%	33%					
23) No pre-school/luck of education facilities	17%	-	-	56%					
Social					Unemployment and elephant problems are serious following drinking water. The problem of 'Drinking of alcohol' was presented by females, and it is social problems nowadays.	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	<p>Problems of rural social</p> <ul style="list-style-type: none"> Elephants damaged of crops Drinking of alcohol/illegal alcohol 	
24) Unemployment / Low employment opportunity	69%	88%	42%	89%					
25) Elephant damages	52%	50%	50%	56%					
26) Lack of vocational training	45%	63%	33%	44%					
27) Drinking of Alcohol / Illegal alcohol	41%	38%	42%	44%					
No. of Irrigation Schemes	100	8	12	80	Note: [] Reviewed by the team [] Problems pointed out more than 50%	It was clear by workshops that various problems are existing in the irrigation schemes. However discussed problems are not so different among Major, Medium and Minor irrigation schemes. Participants took a lot of time to discuss about 'shortage of irrigation water' and 'Unemployment'. Participants hardly discussed about problems of FO. Because it could be considered following causes: participants intend to avoid comment of FO leaders in their community, Discussed problems were mainly related with outside of community. Farmers identified 27 problems, however deep discussions of means-end relationship for the problems are not so			
No. of Implementation of workshops	100	28	26	46					
Participant Male	1,023	262	250	511					
Female	748	131	221	396					
Total	1,771	393	471	907					

Table 6.3.2 Needs for Improvement and Development of Community (Results of RRA Workshop)

Development Needs Identified by Farmers (RRA Workshop)	Ratio of each scheme				Feature of Needs	Analysis of Development Needs		
	Whole	Major	Med.	Minor		Major Irrigation Scheme	Medium Irrigation Scheme	Minor Irrigation Scheme
Irrigation					The highest needs was rehabilitation of irrigation facilities. It considered that the purpose of the needs is based on to increase irrigation water. The needs of construction of agro-wells and development of irrigation schemes are also aimed at increasing of water for irrigation.	Improving income of farm family Increasing income of crop cultivation To increase the supply of water Improving water management Rehabilitation of tank & canal Need maintain the irrigation systems Equipment for desilting Reserve land for common Settle. of encroachment Construction of agro-wells Develop. of irrigation schemes Introduce OFC cultivation To improve marketing (services & facilities) Develop transport & infrastructure facilities Provide lands for cultivation Improvement of Needs for increasing educational level	Improving income of farm family Increasing income of crop cultivation To increase the supply of water Improving water management Rehabilitation of tank & canal Need maintain the irrigation systems Construction of agro-wells Develop. of irrigation schemes Improvement of extension services / technical training Improvement of marketing services/facilities Credit facilities / introduce insurance system Improvement of Needs for increasing educational level	Improving income of farm family Increasing income of crop cultivation To increase the supply of water Rehabilitation of tank & canal Need to maintain the irrigation systems Equipment for desilting Reserve land for common Settle. of encroachment Construction of agro-wells Develop. of irrigation schemes Improvement of extension services / technical training Improvement of marketing services/facilities Credit facilities / introduce insurance Provide lands for cultivation Improvement of Needs for increasing educational level
1) Rehabilitation of tank and canal (desilting/rehabilitation of tank) (rehabilitation/construction of canals)	69%	88%	50%	78%				
2) To increase the supply of water	34%	13%	42%	44%				
3) Improvement of water management	28%	50%	33%	-				
4) Construction of agro-wells	17%	13%	17%	22%				
3) Development of irrigation schemes	14%	13%	8%	22%				
4) Equipment for desilting	10%	13%	-	22%				
5) Need to maintain the irrigation systems	7%	13%	8%	-				
Agriculture					It consider that needs for introduction of OFC is aimed at increase income from crop cultivation. And improvement of extension services / technical training & to improve marketing (services & facilities) is also aimed at increasing income by improving yield.	Improvement of Needs for increasing educational level	Improvement of Needs for increasing educational level	Improvement of Needs for increasing educational level
6) Credit facilities/introduce insurance system	38%	-	33%	78%				
7) Improve marketing (services & facilities)	34%	25%	33%	44%				
8) Improv. of extension services/technical training	10%	-	8%	22%				
9) Dev. transport & infrastructure facilities	10%	13%	-	22%				
10) Introduce OFC cultivation	7%	25%	-	-				
11) Obtain information on good quality animals	3%	-	8%	-				
Land					Although there are needs for settlement of land problems, active discussions were not done.	Improvement of Needs for increasing educational level	Improvement of Needs for increasing educational level	Improvement of Needs for increasing educational level
12) Provide lands for cultivation/reserve land for common	21%	38%	-	33%				
13) Settlement of land problems / encroachment	17%	25%	8%	22%				
Rural infrastructure					Needs of improvement / rehabilitation of roads are high. Above all farm roads for transportation of agricultural products is high. Although many schemes took up 'Provide drinking water facilities /well/ tube-well', needs of construction is low.	Improving Rural infrastructure Improvement / rehabilitation of roads Supply of electricity Provide drinking water facilities / well / tube-well Improvement/rehabilitation of roads Supply of electricity Provide / improve health facilities	Improving Rural infrastructure Improvement / rehabilitation of roads Supply of electricity Provide drinking water facilities / well / tube-well Provide / improve health facilities	Improving Rural infrastructure Improvement/rehabilitation of roads Supply of electricity Provide drinking water facilities / well / tube-well Provide / improve health facilities
14) Improvement / rehabilitation of roads	38%	25%	33%	56%				
15) Supply of electricity	31%	13%	42%	33%				
16) Provide drinking water facilities /well/ tube-well	28%	38%	17%	33%				
17) Improvement of infrastructure	21%	13%	25%	22%				
18) Provide / improve health facilities	10%	13%	-	22%				
19) Rural dispensary/common hall / telecommunication	10%	-	8%	22%				
Rural society					Needs for employment improvement is high as well as needs of irrigation water. Following needs is control of elephants damages.	Development of Rural Society Needs for anti-alcoholism Control of elephants damages Need for anti-alcoholism Organising CBO	Development of Rural Society Needs for anti-alcoholism Control of elephants damages Organizing CBO / community	Development of Rural Society Control of elephants damages Organizing CBO / community Needs for anti-alcoholism
20) Needs for employment improvement	86%	88%	75%	100%				
21) Control of elephants damages	41%	50%	25%	56%				
22) Needs for anti-alcoholism	24%	25%	33%	11%				
23) Needs for increasing educational level	24%	25%	25%	22%				
24) Organizing CBO/community development	24%	38%	17%	22%				
25) Needs for involving government and NGOs	21%	38%	-	33%				
No. of Irrigation Schemes	100	8	12	80	Note: [] Review by the [] Needs more than 50%	A large number of needs presented at the workshops, but differences of the needs were not observed among major, medium and minor irrigation schemes. The highest needs among participants of the workshops were increasing supply of water and improvement of employment. It could be considered that these needs are expected for improving income of farm family. Organizing of FO was not discussed at problem analysis, but the needs of organising CBO/community was mentioned. A large number of needs was presented, but countermeasures of each needs were not so discussed.		
No. of Workshop	100	28	26	46				
Participants Male	1,023	262	250	511				
Female	748	131	221	396				
Total	1,771	393	471	907				

Table 9.2.1 Outline of Implementation plan of Awareness Programme - Major Irrigation Scheme (1/2)

Programme	Puoropose/Expected Result	Target Group	Implement . Agency	Cooperative Agency	Schedule (Month)																		
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Preparation of Task Force	Establishment of Reserch and Advosory Team (RATPA)		IMD,PMU			■																	
Review and Preparation of Awareness Programme	Review and Development, Process Oriented Development Programme		RATPA	Divisional Secretariat		■																	
	·Review awareness programme for implementation			ASC		■																	
	·Review implementation programme for workshop			PMC/IMD (RPM Office)		■																	
	·Developing and preparing guideline and manual of workshop					■	■																
	·Develop syllabus for education/training programme					■	■	■															
·Making fo text for CCC, FOG & Sub-committee					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
Awareness Programme	Sharing of principals of participatory development approach	Senior Officials	RATPA	Divisional Secretariat				■															
		District/AC		ASC				■															
		Divisional/AC		PMC/IMD (RPM Office)				■															
		Field officers						■															
Workshop with Field Officers	Fog is established in each divisional secretariat ·Build network (mutual cooperation, lerning)	Divisional A/C	RATHPA	Divisional Secretariat				■															
		Field officers		ASC				■															
Education and Training Programme	Capacity buildings	FOG	RATPA	DAS, DOI, DOA				■	■	■	■	■	■	■	■	■	■	■	■	■	■		
				KARTI, IMD				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Joint FO general meeting in each	Explanation of development outline	FO / ASC	RATPA	Divisional Secretariat					■														
	·Explanation of development approach and each organisation'	FO /PMC	RATHPA	ASC					■														
	·Explain extent of project and its budget			PMC/IMD (RPM Office)					■														
Joint meeting - CBOs and FO in each community	Explanation of development outline	Community	RATPA	Divisional Secretariat					■														
	·Explanation of development approach and each organisation'		RATPA	ASC					■														
	·Proposal fo establishing of CCC								■														
Community General Meeting (Representatives of CBOs, village other resources pperson/elders etc.)	Establishment of CCC	Community	RATPA	Divisional Secretariat					■														
	·Orgnizing of CCC and making its rules and objectives	(community &		ASC					■														
	·Explanation of strengthening programme of CBOs	Representatives							■														
	Explanation of Process oriented development approach	of community)							■														
Seminar for Participatory Development - Awareness Programme - Education and Training Programme	Education and Training for basic knowledge and techniques	CCC and	RATPA	DAS, DOI, DOA					■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	·Agrarian services act & Irrigation ordinance	FC groups)		DOI					■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	·Function and Role of organization related to rural community								■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	·Necessary procedure to establish FO								■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	·FO constitution and iits amendment								■	■	■	■	■	■	■	■	■	■	■	■	■	■	
·Group discussion and decision-making process								■	■	■	■	■	■	■	■	■	■	■	■	■	■		
·Participatory approach and development								■	■	■	■	■	■	■	■	■	■	■	■	■	■		
Participatory Reserch in the community	Preparation of CAP workshop	CCC and	RATPA	Divisional Secretariat																			
	·Explanation of development project	FC groups		GN																			
	·Reserch for community resources																						
	Conduct an attitude survey (Ex. Conduct pocket-meeting by CCC)																						
·Irrigation - workshop and others																							
Monitoring and Evaluation	Evaluation of CCC, FOG	FOG, CCC	RATPA	Divisional Secretariat																			
CAP workshop	Making Coomunity Action Plan	Rural community	RATPA	Divisional Secretariat																			
	·Problem & objective analysis and making draft action plan	(representatives		GN																			
	·Aetting up sub-committee and reorgnizing of FO	of community)																					
	·Organizing multifunctional FO																						
Joint General Meeting with all CBOs in the community	Confirmation of development procedure and objectives	Rural community	Representati	Divisional Secretariat																			
	·Presentation of result of activities by CCC		of CBOs and	GN																			
	·Confirmation of overall goal by the project		FO																				
·Explanation of CAP, set up excutive committee for CAP																							
Implementation of Action Plan (implementation of Dev. Component)	·Plan and implementation of each draft action plan	Each sub-commi	FO	Divisional Secretariat																			
	·(Strengthening of FO)		(RATPA)	related organizations to the action plan																		→	

Fig. 9.2.1 Outline of Implementation plan of Awareness Programme - Medium & Minor Irrigation Scheme (2/2)

Programme	Puoropose/Expected Result	Target Group	Implement . Agency	Cooperative Agency	Schedule (Month)																		
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Preparation of Task Force	Establishment of Reserch and Advosory Team (RATPA)		IMD,PMU		█																		
Review and Preparation of Awareness Programme	Review and Development, Process Oriented Development Programme ·Review awareness programme for implementation ·Review implementation programme for workshop ·Developing and preparing guideline and manual of workshop ·Develop syllabus for education/training programme ·Making fo text for CCC, FOG & Sub-committee		RATPA	Divisional Secretariat ASC PMC/DOI (for Medium)	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
Awareness Programme	Sharing of principals of participatory development approach	Senior Officials District/AC Divisional/AC Field officers	RATPA	Divisional Secretariat ASC		█	█	█															
Workshop with Field Officers	Fog is established in each divisional secretariat ·Build network (mutual cooperation, lerning)	Divisional/AC Field officers	RATHPA	Divisional Secretariat ASC			█																
Education and Training Programme	Capacity buildings	FOG	RATPA	DAS, DOI, DOA KARTI, IMD				█	█	█	█												
Joint FO general meeting in each	Explanation of development outline ·Explanation of development approach and each organisation' ·Explain extent of project and its budget	FO / ASC FO /PMC	RATPA RATHPA	Divisional Secretariat ASC PMC/DOI (for Medium)					█														
Joint meeting - CBOs and FO in each community	Explanation of development outline ·Explanation of development approach and each organisation' ·Proposal fo establishing of CCC	Community	RATPA RATPA	Divisional Secretariat ASC					█														
Community General Meeting (Representatives of CBOs, village other resources pperson/elders etc.)	Establishment of CCC ·Orgnizing of CCC and making its rules and objectives ·Explanation of strengthening programme of CBOs Explanation of Process oriented development approach ·Participatory development and CAP workshop	Community (community & Representatives of community)	RATPA	Divisional Secretariat ASC						█													
Seminar for Participatory Development - Awareness Programme - Education and Training Programme	Education and Training for basic knowledge and techniques ·Agrarian services act & Irrigation ordinance ·Function and Role of organization related to rural community ·Necessary procedure to establish FO ·FO constitution and iits amendment ·Group discussion and decision-making process ·Participatory approach and development	CCC and FC groups)	RATPA	DAS, DOI, DOA DOI							█	█	█	█									
Participatory Reserch in the community	Preparation of CAP workshop ·Explanation of development project ·Reserch for community resources Conduct an attitude survey (Ex. Conduct pocket-meeting by CCC) ·Irrigation - workshop and others	CCC and FC groups	RATPA	Divisional Secretariat GN								█	█	█	█								
Monitoring and Evaluation CAP workshop	Evaluation of CCC, FOG Making Coomunity Action Plan ·Problem & objective analysis and making draft action plan ·Aetting up sub-committee and reorgnizing of FO ·Organizing multifunctional FO	FOG, CCC Rural community (representatives of community)	RATPA	Divisional Secretariat GN																			
Joint General Meeting with all CBOs in the community	Confirmation of development procedure and objectives ·Presentation of result of activities by CCC ·Confirmation of overall goal by the project ·Explanation of CAP, set up excutive committee for CAP	Rural community of CBOs and FO	Representati of CBOs and FO	Divisional Secretariat GN																			
Implementation of Action Plan (implementation of Dev. Component)	·Plan and implementation of each draft action plan ·(Strengthening of FO)	Each sub-commi	FO (RATPA)	Divisional Secretariat related organizations to the action plan																	█		

Table 9.2.2 Curriculum and Expected Results of Awareness Programme (1/3)

1. Target Group: Senior Officials in Head Office

Duration: 2days Style of the programme: Residential training			
Programme/Curriculum	Expected Results	Materials	Method
Seminars on Participatory Development	Importance of the Participatory development approach is aware by High officials.	1) Text Book on PCM/LFA	Seminar
1. Historical background of rural development	Understanding the present development trends	2) PRA Text book	
2. Rural development principles and the participatory development approach	Understanding and sharing of concepts and principles of participatory rural development	3) CAP Manual, 4) Group Savings Manual,	Workshop
3. Introduce models of participatory development systems in Sri Lanka	To display and explain the use of the participatory development approach in Sri Lanka through the Farmers' Organization in Gal Oya and on-site development of low-income communities in Colombo and their outcomes, in order to understand the practical and ground realities	5) Report on Gal Oya, 6) Report on Community Development (low-income community)	Seminar and Group discussion
4. Effectiveness of organizational development and its method of utilization (Organizational development and its evaluation, RRA)	Understand present issues and the real situation in the rural community. Understand the necessity of the following: Community derived organizations, Institutional development and organizational strengthening, Record keeping, Participatory monitoring and evaluation, Networking, Constitutions, Role of financial management etc.	7) Video Tape of CAP, 8) Format for survey of organizational improvement	Group work
5. Present conditions in each scheme	Comprehend local specific issues		Seminar
6. Participatory survey in each organisation	Implementing participatory survey to recognize necessity of organizational change in each organisation		Participatory Survey

2. District Based Awareness Programme / Anuradhapura and Kurunegala

Duration: 2days Style of the programme: Not residential			
Programme/Curriculum	Expected Results	Materials	Method
1. Historical background of rural development	Understanding the present development trends	1) Text Book on PCM/LFA	Seminar
2. Rural development principles and the participatory development approach	Understanding and sharing of concepts and principles of participatory rural development	2) PRA Text book,	Seminar
3. Introduce models of participatory development systems in Sri Lanka	To display and explain the use of the participatory development approach in Sri Lanka through the Farmers' Organization in Gal Oya and on-site development of low-income communities in Colombo and their outcomes, in order to understand the practical and ground realities	3) CAP Manual, 4) Group Savings Manual,	Seminar, Group discussion
4. Effectiveness of organizational development and its method of utilization (Organizational development and its evaluation, RRA)	Understand present issues and the real situation in the rural community. Understand the necessity of the following: Community derived organizations, Institutional development and organizational strengthening, Record keeping, Participatory monitoring and evaluation, Networking, Constitutions, Role of financial management etc.	5) Report on Gal Oya, 6) Report on Community Development (low-income community), 7) Video Tape of CAP	
5. Presentation by Farmer Animators who joined PCM workshop and other participatory style workshops during the JICA study.	Understand the practical method of participatory approach that implemented at study. Become aware of the importance of government officials activities as Catalyst.	8) Format for survey of organizational improvement	Seminar and Group discussion

Table 9.2.2 Curriculum and Expected Results of Awareness Programme (2/3)

3. Divisional Based Awareness Programme

Contents of Seminars	Expected Results	Materials	
1. Historical background of rural development	Understanding the present development trends	1) Text Book on PCM/LFA	Seminar
2. Rural development principles and the participatory development approach	Understanding and sharing of concepts and principles of participatory rural development	2) PRA Text book	Seminar
3. Introduce models of participatory development systems	To display and explain the use of the participatory development approach in Sri Lanka through the Farmers' Organization in Gal Oya and on-site development of low-income communities in Colombo and their outcomes, in order to understand the practical and ground realities	3) CAP Manual, 4) Group Savings Manual, 5) Report on Gal Oya, 6) Report on Community Development (low-income community)	Seminar, Group discussion
4. Effectiveness of organizational development and its method of utilization (Organizational development and its evaluation, RRA)	Understand present issues and the real situation in the rural community. Understand the necessity of the following: Community derived organizations, Institutional development and organizational strengthening, Record keeping, Participatory monitoring and evaluation, Networking, Constitutions, Role of financial management etc.	7) Video Tape of CAP 8) Format for survey of organizational improvement	Seminar Workshop
5. Presentation by Farmer Animators who joined PCM workshop and other participatory style workshops during the JICA study.	Understand the practical method of participatory approach that implemented at study. Become aware of the importance of government officials activities as Catalyst.		Seminar and Group discussion
6. Explanation and make consensus to make a Field Officers Group (FOG).	Recognizing the importance of field officers' function and manners for sustainable development. Recommend to set up Field officers Group in the Divisional secretariat and obtain agreement for it.		

4. Education and Training Programme for Field Officers Group (FOG)

Contents of Seminars	Expected Results		
1. Learning of Laws and Articles	Understand both the Act and the Ordinance. Understand By-laws of Farmers' Organizations and other agricultural and irrigation activities based on the Act and the Ordinance.	1) Agrarian Services Act 2) Irrigation Ordinance	Seminar
2. Farmers' Organization and its activities (Policy, Procedures and institutions and agencies)	1) Understand all necessary procedures of how to establish a Farmers' Organization. 2) Especially, to enhance their capabilities to prepare By-laws for the Farmers' Organization. 3) Understand about the agencies of DAS, PCM and institutions such as the Agriculture committee, at District and Divisional level.	1) Model of by-laws of FO 2) Constitution issued by DOI 3) List of relevant agencies	Seminar Group study
3. Participatory Approach (PRA, CAP, PCM)	Understand how to apply PRA to assess local needs and potential with farmers; in order to initiate a Community Action Planning process. Understand the necessary tools and techniques to carry on the participatory workshop as a facilitator.	1) Handbook of PRA – Sinhala & Tamil 2) Handbook of CAP 3) VIDEO-CAP	Seminar Group activities
4. Prepare for Community Action Planning (CAP)	Understand the purpose of the CAP workshop and the action plan	1) Model of action plan	Workshop Group study

Table 9.2.2 Curriculum and Expected Results of Awareness Programme (3/3)

5. Awareness Programme and Education/Training Programme for Community Co-ordinating Committees (CCC)

Contents of programmes	Expected Results		
1. Historical background of rural development	Understanding the changing of village in the hydrological areas and situation of rural areas	1) Summary note	Seminar Group discussion
2. Rural development principles and the participatory development approach by government	Understanding the principles of participatory rural development approach by the community and the role of relevant organizations. Relationship with NGO and other resources organizations for rural development.	2) Handbook of participatory project – Sinhala & Tamil	Group discussion
3. Introduce models of participatory development in Sri Lanka and participation of young generation.	To display and explain the use of the participatory development approach in Sri Lanka through the Farmers' Organization in Gal Oya and on-site development of low-income communities in Colombo & Hanbantota women's bank and their outcomes, in order to understand the practical and ground realities.	3) Report on galoya project, hanbantota WB 4) Video and slide of community development	Group discussion
4. Community Based Organizations and its objectives and responsibilities	Understand present issues and the real situation in the rural community and relation of existing CBOs in the community. Understand relationship between CBO & government institutions	5) Hand-out – list of CBOs in the rural area	Seminar
5. Effectiveness of Farmers' organization and its method of utilization	Understand present issues and the real situation in the rural community. Understand the necessity of the following: Community derived organizations, Institutional development and organizational strengthening, necessity of Record keeping, Participatory monitoring and evaluation, Networking, Constitutions, Role of financial management etc.	6) Handbook for the community management 7) Agrarian services Act 8) Irrigation Ordinance 9) Model of by-laws	Seminar Group discussion

6. Contents of Education/Training programmes and expected results

Contents of Programme	Expected Results		
1. Learning of Laws and Articles (Agrarian Services Act and Irrigation Ordinance, Company Act)	Roughly understand each law's characteristic and availability. Understand By-laws of Farmers' Organizations and other agricultural and irrigation activities based on the Act and the Ordinance.	3) Agrarian Services Act 4) Irrigation Ordinance	
2. Farmers' Organization and its activities (Policy, Procedures and institutions and agencies)	1) Understand all necessary procedures of how to establish a Farmers' Organization. 2) Especially, to enhance their capabilities to prepare By-laws for the Farmers' Organization. 3) Understand about the agencies of DAS, PCM and institutions such as the Agriculture committee, at District and Divisional level.	4) Model of by-laws of FO 5) Constitution issued by DOI 6) List of relevant agencies	
3. System of decision-making. (process of decision, collection of information and development, sharing of information and available knowledge)	Understand the democratic discussion and decision –making system and community action planning process. Understand the necessary systems to carry on the participatory workshop in the community.	4) Handbook of PRA – Sinhala & Tamil 5) Handbook of CAP 6) VIDEO-CAP	
4. Prepare for Community Action Planning (CAP)	Understand the purpose of the CAP workshop and the action plan	1) Model of action plan	

Table 9.7.1 Irrigation Water Requirement (1/3)

Item	1		2		3		4		5		6		7		8		9		10		11		12		Total				
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6		1	2	3	4
Cropping Calendar-1 (Area 30%)	Lowland Paddy (135days) 100%						Lowland Paddy (105days) 100%						Lowland Paddy (135days) 100%																
Cropping Calendar-2 (Area 30%)	Lowland Paddy (135days) 100%						Lowland Paddy (105days) 100%						Lowland Paddy (135days) 100%																
Cropping Calendar-3 (Area 40%)	Lowland Paddy (135days)				Lowland Paddy (105days) 100%						Lowland Paddy (135days) 100%																		
Kc1 (Paddy)	1.15	1.20		0.90		1.00		1.15		1.20		0.90		1.00		1.15													
Kc2 (Paddy)	1.20		0.90		1.00		1.15		1.20		0.90		1.00		1.15														
Kc3 (Paddy)	1.20	0.90		1.00		1.15		1.20		0.90		1.00		1.15		1.20													
ET0 (mm/month)	119.4	127.0		157.5		149.9		162.6		175.3		190.5		193.0		190.5		157.5		109.2		114.3							
Crop W. Require. Paddy-1 (m3/ha/mon)	1,413	1,483		709		0		1,778		813		1,972		2,271		1,831		0		1,778		1,092		1,314		16,454			
Crop W. Require. Paddy-2 (m3/ha/mon)	1,433	1,279		0		1,778		1,712		2,045		2,083		869		0		1,778		787		1,174		1,326		16,263			
Crop W. Require. Paddy-3 (m3/ha/mon)	1,363	572		0		1,778		749		1,830		2,089		1,807		0		1,778		1,575		1,256		1,353		16,149			
Effective Rainfall	DL1 (m3/ha/month)	340	0		170		681		170		0		0		0		681		851		681		3,574						
	IL1 (m3/ha/month)	85	0		340		681		511		425		170		0		170		1,106		851		340		4,680				
	IL3 (m3/ha/month)	170	85		170		511		170		85		0		0		85		1,106		936		425		3,744				
Net W. R. 1	1,073	1,483		538		0		2,421		1,972		2,271		1,831		0		1,438		241		634		13,901					
Net W. R. 2	1,092	1,279		0		1,438		1,542		2,045		2,083		869		0		1,885		323		645		13,200					
Net W. R. 3	1,023	572		0		1,847		1,660		2,089		1,807		0		1,778		894		405		672		12,746					
Net W. R. 1	1,328	1,483		538		0		2,080		1,546		2,100		1,831		0		1,225		241		974		13,348					
Net W. R. 2	1,347	1,279		0		1,438		1,202		1,619		1,913		869		0		1,459		323		985		12,434					
Net W. R. 3	1,278	572		0		1,847		1,320		1,663		1,636		0		1,693		469		405		1,013		11,895					
Net W. R. 1	1,243	1,398		624		0		2,421		1,887		2,271		1,831		0		1,225		156		889		13,944					
Net W. R. 2	1,262	1,194		0		1,523		1,542		1,960		2,083		869		0		1,459		238		900		13,030					
Net W. R. 3	1,193	486		0		2,017		1,660		2,003		1,807		0		1,735		469		320		928		12,618					
Total of Net	1,059	1,057		162		1,170		1,853		2,040		2,029		810		711		1,354		331		653		13,229					
Water Requirement	1,314	1,057		162		1,170		1,512		1,615		1,859		810		677		993		331		993		12,493					
Requirement	1,229	972		187		1,264		1,853		1,955		2,029		810		694		993		246		908		13,139					
Ea (Minor Scheme)																									60%				
Ea (Medium Scheme)																									50%				
Ea (Major Scheme)																									40%				
MI, Gross W. R.	1,764	1,762		269		1,950		3,088		3,401		3,381		1,350		1,185		2,257		552		1,088		22,048					
ME, Gross W. R.	2,117	2,115		323		2,340		3,705		4,081		4,058		1,620		1,422		2,709		663		1,305		26,457					
MA, Gross W. R.	2,647	2,643		404		2,925		4,632		5,101		5,072		2,025		1,778		3,386		829		1,631		33,072					
MI, Gross W. R.	2,190	1,762		269		1,950		2,521		2,691		3,098		1,350		1,129		1,654		552		1,655		20,821					
ME, Gross W. R.	2,628	2,115		323		2,340		3,025		3,230		3,717		1,620		1,354		1,985		663		1,986		24,985					
MA, Gross W. R.	3,285	2,643		404		2,925		3,781		4,037		4,647		2,025		1,693		2,482		829		2,482		31,231					
MI, Gross W. R.	2,048	1,620		312		2,106		3,088		3,259		3,381		1,350		1,157		1,654		411		1,513		21,899					
ME, Gross W. R.	2,458	1,944		374		2,527		3,705		3,910		4,058		1,620		1,388		1,985		493		1,816		26,279					
MA, Gross W. R.	3,072	2,430		468		3,159		4,632		4,888		5,072		2,025		1,735		2,482		616		2,270		32,848					

Table 9.7.1 Irrigation Water Requirement (2/3)

Item	1		2		3		4		5		6		7		8		9		10		11		12		Total				
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6		1	2	3	4
Cropping Calendar-1 (Area 30%)	Lowland Paddy (135days) 100%						Loawland Paddy (105days) 90%						Lowland Paddy (135days) 100%																
							OFC (150days) 10%																						
Cropping Calendar-2 (Area 30%)	Lowland Paddy (135days) 100%						Loawland Paddy (105days) 90%						Lowland Paddy (135days) 100%																
							OFC (150days) 10%																						
Cropping Calendar-3 (Area 40%)	Lowland Paddy (135days)				Lowland Paddy (105days) 90%						Lowland Paddy (135days) 100%																		
							OFC (150days) 10%																						
Kc1 (Paddy)	1.15	1.20		0.90				1.00		1.15	1.20		0.90				1.00		1.15										
Kc2 (Paddy)	1.20		0.90		0.90				1.00		1.15	1.20		0.90				1.00		1.15									
Kc3 (Paddy)	1.20		0.90				1.00		1.15	1.20		0.90				1.00		1.15		1.20									
Kc (OFC, Chillies)							0.65		0.85		1.00		0.90																
ET0 (mm/month)	119.4	127.0		157.5		149.9		162.6		175.3		190.5		193.0		190.5		157.5		109.2		114.3							
Crop W. Require. Paddy-1 (m3/ha/mon)	1,413	1,483		709		0		1,600		732	1,472		2,044		1,648		0		1,778	1,092		1,314		15,285					
Crop W. Require. Paddy-2 (m3/ha/mon)	1,433	1,279		0		1,600		1,541		1,840		1,875		782		0		1,778		787	1,174		1,326		15,415				
Crop W. Require. Paddy-3 (m3/ha/mon)	1,363	572		0		1,600		674		1,647		1,880		1,626		0		1,778		1,575		1,256		1,353		15,324			
Crop W. Require. OFC-1 (m3/ha/month)							102		147		175		191		177														
Crop W. Require. OFC-2 (m3/ha/month)							102		147		175		191		177														
Crop W. Require. OFC-3 (m3/ha/month)							102		147		175		191		177														
Effective Rainfall	DL1 (m3/ha/month)	340	0		170		681		170		0		0		0		681		851		681		3,574						
	IL1 (m3/ha/month)	85	0		340		681		511		425		170		0		170		1,106		851		340		4,680				
	IL3 (m3/ha/month)	170	85		170		511		170		85		0		85		1,106		936		425		3,744						
Net W. R. 1	DL1 (m3/ha/month)	1,073	1,483		538		0		2,308		1,647		2,234		1,825		0		1,438		241		634		13,422				
Net W. R. 2	IL1 (m3/ha/month)	1,092	1,279		0		1,022		1,518		2,015		2,065		959		0		1,885		323		645		12,803				
Net W. R. 3	IL3 (m3/ha/month)	1,023	572		0		1,696		1,624		2,055		1,817		177		1,778		894		405		672		12,712				
Net W. R. 1	DL1 (m3/ha/month)	1,328	1,483		368		0		1,968		1,222		2,064		1,825		0		1,225		241		974		12,698				
Net W. R. 2	IL1 (m3/ha/month)	1,347	1,279		0		1,022		1,177		1,590		1,895		959		0		1,459		323		985		12,037				
Net W. R. 3	IL3 (m3/ha/month)	1,278	572		0		1,696		1,283		1,629		1,646		177		1,608		469		405		1,013		11,776				
Net W. R. 1	DL1 (m3/ha/month)	1,243	1,398		538		0		2,308		1,562		2,234		1,825		0		1,225		156		889		13,379				
Net W. R. 2	IL1 (m3/ha/month)	1,262	1,194		0		1,192		1,518		1,930		2,065		959		0		1,459		238		900		12,718				
Net W. R. 3	IL3 (m3/ha/month)	1,193	486		0		1,866		1,624		1,970		1,817		177		1,693		469		320		928		12,542				
Total of Net	DL1 (m3/ha/month)	1,059	1,057		162		985		1,797		1,921		2,016		906		711		1,354		331		653		12,952				
Water Requirement	IL1 (m3/ha/month)	1,314	1,057		110		985		1,457		1,495		1,846		906		643		993		331		993		12,131				
	IL3 (m3/ha/month)	1,229	972		162		1,104		1,797		1,836		2,016		906		677		993		246		908		12,846				
Ea (Minor Scheme)																													
Ea (Medium Scheme)																													
Ea (Major Scheme)																													
MI, Gross W. R.																													
ME, Gross W. R.	DL1 (m3/ha/month)	1,764	1,762		269		1,642		2,995		3,201		3,361		1,510		1,185		2,257		552		1,088		21,587				
MA, Gross W. R.	IL1 (m3/ha/month)	2,117	2,115		323		1,970		3,595		3,842		4,033		1,811		1,422		2,709		663		1,305		25,905				
MI, Gross W. R.	IL3 (m3/ha/month)	2,647	2,643		404		2,463		4,493		4,802		5,041		2,264		1,778		3,386		829		1,631		32,381				
ME, Gross W. R.	DL1 (m3/ha/month)	2,190	1,762		184		1,642		2,428		2,492		3,077		1,510		1,072		1,654		552		1,655		20,219				
MA, Gross W. R.	IL1 (m3/ha/month)	2,628	2,115		221		1,970		2,914		2,991		3,693		1,811		1,286		1,985		663		1,986		24,262				
MI, Gross W. R.	IL3 (m3/ha/month)	3,285	2,643		276		2,463		3,642		3,738		4,616		2,264		1,608		2,482		829		2,482		30,328				
ME, Gross W. R.	DL1 (m3/ha/month)	2,048	1,620		269		1,840		2,995		3,060		3,361		1,510		1,129		1,654		411		1,513		21,410				
MA, Gross W. R.	IL1 (m3/ha/month)	2,458	1,944		323		2,208		3,595		3,672		4,033		1,811		1,354		1,985		493		1,816		25,692				
MI, Gross W. R.	IL3 (m3/ha/month)	3,072	2,430		404		2,760		4,493		4,589		5,041		2,264		1,693		2,482		616		2,270		32,115				

Table 9.7.1 Irrigation Water Requirement (3/3)

Item	1		2		3		4		5		6		7		8		9		10		11		12		Total					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6		1	2	3	4	5
Cropping Calendar-1 (Area 30%)	Lowland Paddy (135days) 90%						Loawland Paddy (105days) 80%						Lowland Paddy (135days) 90%																	
	OFC (150days) 10%						OFC (150days) 20%						OFC (150days) 10%																	
Cropping Calendar-2 (Area 30%)	Lowland Paddy (135days) 90%						Loawland Paddy (105days) 80%						Lowland Paddy (135days) 90%																	
	OFC (150days) 10%						OFC (150days) 20%						OFC (150days) 10%																	
Cropping Calendar-3 (Area 40%)	Lowland Paddy (135days)						Lowland Paddy (105days) 80%						Lowland Paddy (135days) 90%																	
	OFC (150days) 10%						OFC (150days) 20%						OFC (150days) 10%																	
Kc1 (Paddy)	1.15					1.20	0.90						1.00	1.15	1.15	1.20	1.20	0.90	0.90						1.00	1.15	1.15			
Kc2 (Paddy)		1.20				0.90						1.00	1.00	1.15	1.15	1.20	1.20	0.90	0.90						1.00	1.00	1.15	1.15		
Kc3 (Paddy)		1.20	0.90								1.00	1.15	1.15	1.20	1.20	0.90	0.90							1.00	1.00	1.15	1.15	1.20		
Kc (OFC, Chillies)		1.00				0.90					0.65	0.85	1.00	1.00	1.00	1.00	0.90	0.90						0.65	0.85	1.00	1.00	1.15	1.20	
ET0 (mm/month)	119.4					127.0	157.5				149.9	162.6	175.3	190.5	193.0	190.5	190.5	190.5						157.5	109.2	114.3				
Crop W. Require. Paddy-1 (m3/ha/mon)	1,272					1,335	638					1,422	650	1,309	1,817	1,465			0	1,600				983	1,183				13,673	
Crop W. Require. Paddy-2 (m3/ha/mon)	1,289					1,151		0	1,422			1,370	1,636	1,667	695	0			1,600	709				1,057	1,193				13,788	
Crop W. Require. Paddy-3 (m3/ha/mon)	1,227	514	0				1,422	599	1,464	1,671	1,445				0	1,600			1,417					1,130	1,218				13,709	
Crop W. Require. OFC-1 (m3/ha/month)	119					116			205	294	351			354										108	98	114			2,140	
Crop W. Require. OFC-2 (m3/ha/month)	119					116			205	294	351			354										108	98	114			2,140	
Crop W. Require. OFC-3 (m3/ha/month)	119					116			205	294	351			354										108	98	114			2,140	
Effective Rainfall	DL1 (m3/ha/month)	340				0	170			681	170			0	0	0								681	851	681			3,574	
	IL1 (m3/ha/month)	85				0	340			681	511			425	170	0				170				1,106	851	340			4,680	
	IL3 (m3/ha/month)	170				85	170			511	170			85	0	85				1,106				936	425				3,744	
Net W. R. 1	1,051					1,451	468			0	2,196	1,659	2,198	1,818	0	0			1,028					230	617				12,715	
Net W. R. 2	1,068					1,267	0	946			1,493	1,986	2,048	1,049	0	0			1,737					304	627				12,525	
Net W. R. 3	1,006					630	0	1,546			1,588	2,021	1,826	354	1,600	845								378	651				12,445	
Net W. R. 1	1,306					1,451	297	0			1,856	1,234	2,027	1,818	0	0			602					230	957				11,779	
Net W. R. 2	1,324					1,267	0	946			1,153	1,561	1,877	1,049	0	0			1,311					304	967				11,759	
Net W. R. 3	1,261					630	0	1,546			1,247	1,596	1,656	354	1,430	420								378	992				11,509	
Net W. R. 1	1,221					1,365	468	0			2,196	1,574	2,198	1,818	0	0			602					145	872				12,460	
Net W. R. 2	1,239					1,182	0	1,117			1,493	1,901	2,048	1,049	0	0			1,311					219	882				12,439	
Net W. R. 3	1,176					545	0	1,716			1,588	1,936	1,826	354	1,515	420								293	907				12,275	
Total of Net Water Requirement	DL1 (m3/ha/month)	1,038				1,067	140	902			1,742	1,902	2,004	1,002	640	1,167								311	634				12,550	
	IL1 (m3/ha/month)	1,293				1,067	89	902			1,401	1,477	1,834	1,002	572	742								311	974				11,665	
	IL3 (m3/ha/month)	1,208				982	140	1,021			1,742	1,817	2,004	1,002	606	742								226	889				12,380	
Ea (Minor Scheme)													60%																	
Ea (Medium Scheme)													50%																	
Ea (Major Scheme)													40%																	
MI, Gross W. R.	1,730					1,779	234	1,504			2,903	3,170	3,340	1,669	1,067	1,946								519	1,056				20,917	
ME, Gross W. R.	2,076					2,134	281	1,805			3,484	3,804	4,008	2,003	1,280	2,335								623	1,267				25,100	
MA, Gross W. R.	2,595					2,668	351	2,256			4,355	4,755	5,010	2,504	1,600	2,918								779	1,584				31,375	
MI, Gross W. R.	2,156					1,779	149	1,504			2,336	2,461	3,056	1,669	953	1,237								519	1,623				19,442	
ME, Gross W. R.	2,587					2,134	178	1,805			2,803	2,953	3,668	2,003	1,144	1,484								623	1,948				23,330	
MA, Gross W. R.	3,234					2,668	223	2,256			3,504	3,692	4,585	2,504	1,430	1,855								779	2,435				29,163	
MI, Gross W. R.	2,014					1,637	234	1,702			2,903	3,028	3,340	1,669	1,010	1,237								377	1,481				20,633	
ME, Gross W. R.	2,417					1,964	281	2,043			3,484	3,634	4,008	2,003	1,212	1,484								453	1,778				24,760	
MA, Gross W. R.	3,021					2,455	351	2,554			4,355	4,543	5,010	2,504	1,515	1,855								566	2,222				30,950	

Table 9.7.2 Summary of Water Balance Study

Cluster	Code No.	Name of Scheme	Case	Gross Command Area (ha)	Result of Water Balance Study									
					(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
					Irrigatio Area			Inflow (MCM)	Intake (MCM)	Seepage (MCM)	Evaporation (MCM)	Spilling (MCM)	Balance (MCM)	
					Maha (ha)	Yala (ha)	Total (ha)							
Major Schemes	Nachchaduwa	1MA-01	Nachchaduwa	B	2,540	2,540	2,540	5,080	109.269	79.693	2.330	12.546	14.700	0.000
	Nachchaduwa	1MA-02	Nuwarawewa	B	1,134	1,134	326	1,460	29.138	20.323	0.403	8.413	0.000	0.000
	Nachchaduwa	1MA-03	Tissawewa	B	365	365	42	407	6.901	5.349	0.058	1.494	0.000	0.000
	Kala Oya 1	2MA-01	Rajangana	B	5,668	5,668	2,838	8,506	141.309	124.410	2.078	14.822	0.000	0.000
	Kala Oya 1	2ME-01	Angamuwawewa											
	Mi Oya	4MA-01	Palukadawewla	B	1,828	1,828	882	2,710	47.017	39.488	0.676	5.980	0.873	0.000
	Mi Oya	4MA-02	Attaragallewea											
Mi Oya	4MA-03	Abakolawewa												
Deduru Oya 1	5MA-01	Magalle Wewa	B	2,632	968	0	968	13.713	11.602	0.110	2.000	0.000	0.000	
Medium Schemes	Nachchaduwa	1ME-01	Thruwila	B	227	227	121	348	6.455	4.076	0.102	2.277	0.000	0.000
	Nachchaduwa	1ME-02	Eru Wewa	B	34	34	34	68	29.885	0.851	0.044	0.884	28.106	0.000
	Nachchaduwa	1ME-03	Uttimaduwa	A	93	93	74	167	3.993	2.125	0.057	0.820	0.991	0.000
	Nachchaduwa	1ME-04	Periyakulawa	B	91	91	52	143	2.530	1.683	0.042	0.804	0.000	0.000
	Nachchaduwa	1ME-05	Maminiyawa	B	211	211	90	301	5.060	3.454	0.063	0.757	0.785	0.000
	Nachchaduwa	1ME-06	Maha bunankulama	B	90	90	40	130	2.180	1.493	0.033	0.655	0.000	0.000
	Mi Oya	4ME-01	Mahananneriya	A	158	158	155	313	5.874	4.048	0.091	0.951	0.785	0.000
	Mi Oya	4ME-02	Maha galgamuwa	B	193	44	0	44 *	1.728	0.432	0.028	1.267	0.000	0.000
	Deduru Oya 1	5ME-01	Hulugallawewa	A	121	121	121	243	6.597	3.120	0.075	0.701	2.701	0.000
	Deduru Oya 2	6ME-01	Meddeketiya	A	98	98	98	195	3.260	2.376	0.038	0.324	0.522	0.000
	Deduru Oya 2	6ME-02	Moragada Anicut	B	194	194	115	309	25.577	3.589	0.000	0.000	21.988	0.000
Minor Schemes	Nachchaduwa	I	8 Schemes	B	303	206	8	214 *	3.316	1.803	0.038	1.474	0.000	0.000
	Nachchaduwa	II	8 Schemes	A	278	211	0	211 *	2.727	1.872	0.028	0.819	0.007	0.000
	Nachchaduwa	III	10 Schemes	B	412	250	2	252 *	3.365	2.095	0.028	0.960	0.283	0.000
	Kala Oya 1	IV	9 Schemes	A	349	292	63	355	5.292	3.393	0.057	1.287	0.553	0.000
	Kala Oya 2	V	10 Schemes	B	179	135	24	159 *	3.065	1.379	0.022	0.498	1.166	0.000
	Mi Oya	VI	11 Schemes	B	318	263	10	273 *	3.721	2.298	0.042	1.379	0.000	0.000
	Mi Oya	VII	10 Schemes	A	260	215	105	320	8.142	3.240	0.063	1.256	3.583	0.000
	Deduru Oya 1	VIII	10 Schemes	A	271	241	63	304	4.821	2.883	0.055	1.225	0.657	0.000
	Deduru Oya 2	IX	4 Schemes	A	139	139	27	166	1.954	1.541	0.020	0.330	0.063	0.000

Note: 1) Additional inflow from feeder canal dose not include in Magalle Wewa 3) (9) = (4) - (5) - (6) - (7) -(8)
 2) * means that total irrigable area is smaller than gorss command area 4) Case A : Cropping Patterns (Paddy), Case B : Cropping Pateerns (OFC)

Table 9.7.3 Existing Conditions of Major and Medium Irrigation Schemes

Code	Name of Scheme	Existing Condition		
		Initial Construction /Rehabilitation Project	Tank	Canal System
1MA-01	Nachchaduwa	Tank constructed in 1906 Rehabilitated in 1958 Rehabilitated by MIRP in 1989	A	B
1MA-02	Nuwarawewa	Tank constructed in B.C.400 Tank rehabilitated in 1988 to 90 by MIRP	A	A
1MA-03	Tissawewa	Tank constructed in B.C.300 Tank and selected facilities rehabilitated in 1987 by MIRP	B	A
2MA-01	Rajangana	Tank and Canal constructed in 1965 Upland distribution system constructed in 1974 ~ 84 M, D-Canal and selected facilities rehabilitated in 1985 ~ 93 by MIRP Upland distribution system rehabilitated in 1999 by AWRMP	A	B
4MA-01	Palukadawela	Tank and selected facilities rehabilitated in 1999 by ADB fund	A	A
4MA-02	Attaragallewa	Tank and selected facilities rehabilitated in 1998 by ADB fund	A	A
4MA-03	Abakolawewa	Tank and selected facilities rehabilitated in 1998 by ADB fund	A	A
5MA-01	Maggalle Wewa	Tank constructed in 1873 Canal constructed in 1958 to 60 Tank and selected facilities rehabilitated in 1994 by ISPM	A	A
1ME-01	Thuruwila	Rehabilitated in 1989 by MIRP	B	A
1ME-02	Eru Wewa	No Rehabilitation	B	C
1ME-03	Uttimaduwa	Canal constructed around 70 years ago Sluice gate replaced around 30 years ago	B	C
1ME-04	Periyakulama	Tank rehabilitated in 1973	B	C
1ME-05	Maminiyawa	Sluice gate replaced in 1958	B	C
1ME-06	Maha Bunankulama	Ancient tank Tank rehabilitated and canal constructed in 1877 Sluice gate replaced around 30 years ago	B	C
4ME-01	Mahananneriya	Tank rehabilitated in 1939	B	C
4ME-02	Maha Galgamuwa	Tank constructed in more than 100 years ago Some anicuts rehabilitated	B	C
5ME-01	Hulugallewewa	Tank and selected facilities rehabilitated in 1994 by ADB fund	B	A
6ME-01	Meddeketiya	Sluice rehabilitated in 1994 by ADB fund Tank and selected facilities rehabilitated in 1999 by ADB fund	A	A
6ME-02	Moragada Anicut	Anicut constructed in 1976 Tank and selected facilities rehabilitated in 1998 by ADB fund	A	A

Table 9.7.4 Rehabilitaiton Plan for Respective Projects (1/3)

Code No.	Name of Scheme	Tank Rehabilitation										Canal System Rehabilitation							
		Bund Earth Works	Clearing	Raising	Desilting or Remove Waterglass	Lip Rap Lining	Sluice	Sluice Gate		Spillway	Length of Canal Rehabilitation					Others			
								Description	Nec.		Description	nos	Description	Main	Branch		D-Canal	F-Canal	Total
Major	1MA-01	Nachchaduwa	4,690	82,000	0	0	0		1	1.50x1.00	8	Small Repair	40,000		33,200		73,200		
	1MA-02	Nuwarawewa	5,223	276,000	0	0	0		0			Spill Planks RB	18,650		10,000	18,000	46,650	F. Road(L=2,000m)	
	1MA-03	Tissawewa	3,110	61,000	0	0	3,400		2	1.50x1.00	6	Replace of Planks	2,500		3,425	18,000	23,925		
	2MA-01	Rajangana	7,443	390,000	0	0	0		2	1.50x1.00	3	Gates Electricity Operation	33,800	10,000		317,000	360,800		
	4MA-01	Palukadawewla	1,460	33,000	0	0	0		0				16,500		6,000		22,500		
	4MA-02	Attaragallewea	0	71,000	0	0	0		0								0		
	4MA-03	Abakolawewa	1,110	25,000	0	0	0		1	1.50x1.00	4		4,250			0	4,250	Drainage Canal	
	5MA-01	Magalle Wewa	0	662,000	0	0	0		0				28,460	9,100			37,560	F. Road(L=5,000m)	
Medium	1ME-01	Thruwila	2,080	92,000	0	0	3,400		2	1.50x1.00	2	Downstream Protection	1,700		1,400	9,000	12,100		
	1ME-02	Eru Wewa	1,970	69,000	0	0	0		0			Replace Gate & Others	1,825				1,825		
	1ME-03	Uttimaduwa	1,140	12,000	0	0	0		2	Dia. 600mm	3		2,713				2,713	Drainage Canal	
	1ME-04	Periyakulawa	2,040	22,000	0	0	1,300		2	Dia. 600mm	2	Small Repair	1,798			2,438	4,236		
	1ME-05	Maminijawa	1,410	60,000	0	0	2,700	LB & RB	2	Dia. 600mm	2	Tail Canal Improvement	6,705			9,144	15,849	F. Road(L=3,000m), Anicut	
	1ME-06	Maha bunankulama	2,160	24,000	0	1	0	LB & RB	2	Dia. 600mm	2	Inter Connection RB & LB	2,414			6,415	8,829	F. Road(L=1,000m)	
	2ME-01	Angamuwawewa	0	110,000	0	0	0		0			Replace Radial Gates Cable					0		
	4ME-01	Mahananneriya	3,000	22,000	0	0	1,300		0			Spill Extention	3,280			3,000	6,280	F. Road(L=1,000m)	
	4ME-02	Maha galgamuwa	0	14,000	0	0	0	RB	2	1.50x1.00	1		5,630			3,000	8,630	Anicut	
	5ME-01	Hulugallawewa	1,320	32,000	0	0	0		0								0	Seepage Protection	
	6ME-01	Meddeketiya	0	11,000	0	0	700		0									0	
	6ME-02	Moragada Anicut	0	0	0	0	0		0									0	
Minor-I	1MI-01	Illuppukanniya	510	9,000	0	0	0		0				570				570		
	1MI-02	Nelumkanniya Wewa	0	12,000	0	0	0	RB	2	Dia. 600mm	1						0	Bathing Spot	
	1MI-03	Thariyan Kulama	0	16,000	0	0	0		0								0		
	1MI-04	Kuda Kalattawa Wewa	690	11,000	0	0	0	LB	2	Dia. 600mm	1	Small Repair	1,100			300	1,400	Bathing Spot	
	1MI-05	Kammalak Kulama	720	8,000	0	0	0		2	Dia. 600mm	1	Tail Canal Improvement	1,500				1,500		
	1MI-06	Halmillawe Wewa	810	11,000	0	0	0		2	Dia. 600mm	3		600				600	Bathing Spot	
	1MI-07	Maha Kalattawe Wewa	420	14,000	0	0	0		2	Dia. 600mm	2	Small Repair	800				800	Bathing Spot	
	1MI-08	Bandialan Kulama	240	3,000	0	0	0		2	Dia. 600mm	1	Earth Works & Others	800				800	Bathing Spot	
	1MI-09	Ihala Amanakattuwa	0	6,000	0	0	0		2	Dia. 600mm	2		950				950	Bathing Spot	
Minor-II	1MI-10	Walagambahuwa Wewa	480	6,000	0	0	0		2	Dia. 600mm	2						0	Earth Works LB	
	1MI-11	Pahala Wewa	420	6,000	0	0	0		2	Dia. 600mm	2	Provide Crest Wall	610				610		
	1MI-12	Marikkaragama Wewa	210	6,000	0	0	0		2	Dia. 600mm	3		2,250				2,250	Bathing Spot	
	1MI-13	Paindikulama Wewa	450	5,000	0	0	0		0			Small Repair	1,600				1,600	Bathing Spot	
	1MI-14	Mawatha Wewa	150	1,000	0	0	100		2	Dia. 600mm	1		1,500				1,500	Seepage Protection	
	1MI-15	Sembuk Kulama	0	4,000	0	0	0		0			Tail Canal Improvement	50				50		
	1MI-16	Punchi Kulama	0	24,000	0	0	0		0								0	Excavate A Canal	

Table 9.7.4 Rehabilitaiton Plan for Respective Projects (2/3)

Code No.	Name of Scheme	Tank Rehabilitation										Canal System Rehabilitation						
		Bund Earth Works	Clearing	Raising	Desilting or Remove Waterglass	Lip Rap Lining	Sluice	Sluice Gate		Spillway	Length of Canal Rehabilitation					Others		
								Description	Nec.		Description	nos	Description	Main	Branch		D-Canal	F-Canal
(m3)	(m2)	Necessity	Necessity	(m2)	Description	Nec.	Description	nos	Description	(m)	(m)	(m)	(m)	(m)	Description			
Minor-III	1MI-17	Gallewa	60	0	0	0	0		2	Dia. 600mm	1	Tail Canal Improvement	2,000				2,000	Bathing & Anicut
	1MI-18	Gallewa Ulakula,a	180	4,000	0	0	0		2	Dia. 600mm	4	Crest Wall Improvement	1,500				1,500	Bathing Spot
	1MI-19	Kiriamunakola Wewa	360	4,000	0	0	0	LB	2	Dia. 600mm	1	Crest Wall Improvement	500				500	
	1MI-20	Kuttikulama Wewa	480	5,000	0	0	0	LB & Cent.	2	Dia. 600mm	3	Repair Spill	500				500	Bathing Spot
	1MI-21	Indigaha Wewa	150	2,000	0	0	0	LB & Cent.	2	Dia. 600mm	2		750				750	Bathing Spot
	1MI-22	Mawatha Wewa	1,170	13,000	0	0	0		2	Dia. 600mm	2	Tail Canal Improvement	2,950				2,950	Bathing Spot
	1MI-23	Kudagama Wewa	90	2,000	0	0	0		0			Rubble Pitching	100				100	
	1MI-24	Rathmalwetiya	0	4,000	0	0	0		2	Dia. 600mm	4	Rubble Pitching	80				80	
	1MI-25	Selethhimaduwa Wewa	1,320	12,000	0	0	0		2	Dia. 600mm	3		1,100				1,100	Bathing Spot
1MI-26	Hammila Kulama	330	6,000	0	0	0		2	Dia. 600mm	4	Repair Spill	8,000				8,000	Bathing Spot	
Minor-IV	2MI-01	Nika Attegana Wewa	510	7,000	0	0	0		2	Dia. 600mm	3		700				700	
	2MI-02	Udanegama Wewa	210	4,000	0	0	0		2	Dia. 600mm	3	Earth Works Tail Canal	525				525	
	2MI-03	Negama Wewa	0	12,000	0	0	0		2	Dia. 600mm	3		200				200	
	2MI-04	Kalanchiya Wewa	900	15,000	0	0	0		2	Dia. 600mm	4	Culvert Improvement	0				0	
	2MI-05	Medawachchiya Wewa	0	9,000	0	0	0		2	Dia. 600mm	2	Repair Cushion	1,520				1,520	
	2MI-06	Mahaottapahuwa Wewa	330	4,000	1	1	0		2	Dia. 600mm	2	Repair Spill	800			300	1,100	
	2MI-07	Kandulugamuwa Wewa	0	23,000	0	0	0		0								0	
	2MI-08	Dikwewa	1,050	11,000	0	0	0		2	Dia. 600mm	3		1,095				1,095	
	2MI-09	Kumbukwewa	0	10,000	0	0	0		2	Dia. 600mm	4				0			0
Minor-V	3MI-01	Tuttiriwewa	510	6,000	0	0	0		2	Dia. 600mm	1		0				0	Feeder Canal
	3MI-02	Weragalawatta Wewa	270	3,000	0	0	0		2	Dia. 600mm	3	Minor Repair	244	183			427	
	3MI-03	Nabadagahawatta Wewa	1,140	15,000	0	0	0		2	Dia. 600mm	4						0	
	3MI-04	Nikewehera Wewa	0	1,000	0	0	0		0					407			407	
	3MI-05	Galapitiya Wewa	270	4,000	0	0	0		2	Dia. 600mm	2	Repair Spill	1,290				1,290	
	3MI-06	Bathalakotuwa Wewa	510	6,000	0	0	0	RB	2	Dia. 600mm	1	Repair Spill	153				153	
	3MI-07	Damunumulla Gama	0	6,000	0	0	0		0				2,000				2,000	Bathing Spot
	3MI-08	Yatigalpotta Gama	0	13,000	0	0	0		0						650		1,130	
	3MI-09	Kudawewa	270	5,000	0	0	0		2	Dia. 600mm	2	Construction of Crest Wall	100				100	Seepage Protection
	3MI-10	Disawage Wewa	0	10,000	0	0	0		2	Dia. 600mm	3	Repair Spill	1,300				1,300	
Minor-VI	4MI-01	Pahala Embogama Wewa	990	10,000	0	0	0		0			Paving Concrete	100	600			700	Bathing Spot
	4MI-02	Galketiyyagama Wewa	0	6,000	0	0	0		2	Dia. 600mm	2						0	
	4MI-03	Maha Embogama Wewa	900	9,000	0	0	600		0					0			0	
	4MI-04	Kaduruwewa Mahawewa	840	6,000	0	0	0		2	Dia. 600mm	2	Repair Spill	2,500		300	7,000	9,800	
	4MI-05	Kumbukkadawela Wewa	0	5,000	0	0	0		0								0	
	4MI-06	Ehetuwewa	0	13,000	0	1	0		2	Dia. 600mm	2		200			1,000	1,200	
	4MI-07	Aluthwewa Mahawewa	360	5,000	0	0	0		0								0	Bathing Spot
	4MI-08	Galkadawala Wewa	0	7,000	0	1	0		0								0	
	4MI-09	Rathnadiul Wewa	0	12,000	0	0	0		2	Dia. 600mm	2		20				20	
	4MI-10	Mannakulagama Wewa	0	10,000	0	1	0		0								0	
	4MI-11	Ereyana Wewa	0	3,000	0	0	0		2	Dia. 600mm	2		700				700	

Table 9.7.4 Rehabilitaiton Plan for Respective Projects (3/3)

Code No.	Name of Scheme	Tank Rehabilitation										Canal System Rehabilitation						
		Bund Earth Works	Clearing	Raising	Desilting or Remove Waterglass	Lip Rap Lining	Sluice	Sluice Gate		Spillway	Length of Canal Rehabilitation					Others		
								Description	Nec.		Description	nos	Description	Main	Branch		D-Canal	F-Canal
																(m3)		
Minor-VII	4MI-12	Kallanchiya Wewa	450	5,000	0	0	0	LB	2	Dia. 600mm	1		110				110	
	4MI-13	Arthikulama	240	3,000	0	1	0		2	Dia. 600mm	2						0	
	4MI-14	Mailewa Wewa	0	5,000	0	0	0		0								0	
	4MI-15	Ihalagama Wewa	930	11,000	0	0	0	Centre	2	Dia. 600mm	1		40			2,600	2,640	
	4MI-16	Thambare Wewa	120	1,000	0	0	0		0			Tail Canal Improvement	300			1,000	1,300	
	4MI-17	Gamewewa (Nanneriya)	1,020	11,000	0	0	0		2	Dia. 600mm	1	Repair Spill	800				800	
	4MI-18	Molewa Wewa	0	15,000	0	0	0		0								0	
	4MI-19	Iddamalpitiya Wewa	0	14,000	0	0	0		2	Dia. 600mm	2						0	
	4MI-20	Nochiya Wewa	1,530	16,000	0	0	0		2	Dia. 600mm	1		1,000				1,000	
	4MI-21	Wannikuda Wewa	330	4,000	0	0	0		0			Repair Spill & Tail Canal	1,600				1,600	
Minor-VIII	5MI-01	Yakadapotha Wewa	0	8,000	0	0	0		0								0	
	5MI-02	Udagirilla Mahawewa	780	8,000	0	0	0		0				1,000				1,000	
	5MI-03	Mahagirilla Mahawewa	690	7,000	0	0	500		2	Dia. 600mm	1		1,200				1,200	Bathing Spot
	5MI-04	Hindogama Wewa	510	10,000	0	0	0		2	Dia. 600mm	2		760				760	Bathing Spot
	5MI-05	Karawdeniya Wewa	240	5,000	0	0	0		0			RB Spill Reconstruction	400				400	Anicut & Bathing
	5MI-06	Kadewelagedera Wewa	0	8,000	0	0	0		0								0	
	5MI-07	Hulawa Wewa	450	6,000	0	1	0		2	Dia. 600mm	1	Tail Canal Improvement	365				365	
	5MI-08	Kotuwattawala Wewa	0	10,000	0	1	0		0					75			75	
	5MI-09	Wanduressa Mahawewa	990	9,000	0	1	0		2	Dia. 600mm	2		610				610	
	5MI-10	Thumbulla Mahawewa	570	7,000	0	0	400		2	Dia. 600mm	2	Reduce Side Slope	400				400	
Minor-IX	6MI-01	Dikwewa	750	9,000	0	0	0		0								0	
	6MI-02	Mahawewa	480	4,000	0	0	0		2	Dia. 600mm			1,734				1,734	
	6MI-03	Thambuwa Mahawewa	480	5,000	0	0	0		0					500	500		1,000	
	6MI-04	Henawa Mahawewa	0	8,000	0	0	0		0								0	

Table 9.1 Farming Constraints and Needs for Crop Sub-sector Support Programmes Identified by Extension Agencies

Scheme	Command Area (ha)	Annual Cropping 1/ Intensity (%)		With Project Cropping Pattern		Paddy Yield (t/ha) 2/		Target Paddy Yield (t/ha) 3/		Responsible Extension Agencies	Agricultural Constraints & Requirements of Extension Programs Identified by Extension Agencies & Study Team	
		Present	With Project	Paddy	OFC	Maha	Yala	Maha	Yala		Constraints	Requirements of Extension Programs
Major Schemes	Nachchaduwa Nuwarawewa Tissawewa Rajangana	2,540 1,134 365 5,668	160 119 98 -	200 129 112 154	170 113 99 133	30 16 12 21	4.4 4.1 4.0 4.0	3.8 2.6 4.1 4.1	5.0 5.0	IPEU 4/	- Insufficient skills of extension staff - Poor logistic support - OFC & vegetable seed supply - Inadequate deployment of field staff - Irrigation water shortage(sometimes) - Access to farm credit	- Paddy yield increase demonstration block with credit component - Seed production program - Yield maximization program/trial - Upland on-farm water management trial/demonstration - Improvement of logistic support - Field staff training
Medium Schemes	Thuruwila Eru Wewa Uttimaduwa Periyakulawa Maminiyawa Maha Bulankulama	227 34 93 91 211 90	157 200 100 121 110 103	180 200 180 157 143 145	154 170 172 146 124 126	26 30 8 11 19 19	4.6 3.6 3.2 4.2 4.4 2.6	3.6 3.6 2.5 3.6 1.7 3.8	5.0 5.0	PDOA, NCP	- Irrigation water shortage - Insufficient skills of extension staff - Inadequate deployment of field staff - Farmers having less interest on OFC - Poor logistic support	- Large scale demonstration (Large scale demonstration in a selected tank of a cascade) - Demonstration of OFC, vegetables in paddy (crop diversification) - IPM - Seed production program - Adaptive trials by extension agencies - Agro-well - Soil conservation program(upland area) - Introduction of mobile extension services - Improvement of logistic support - Staff training
Minor Schemes	Cascade I Cascade II Cascade III Cascade IV	303 278 412 350	77 49 133 51	87 76 164 107	79 76 141 104	9 0 23 2	3.9 4.0 3.8 2.8	3.2 3.7 2.9	5.0 5.0			
Major Schemes	Palukadawela Attaragalla Abakolawewa Magalle Wewa	956 462 410 2,632	145 145 150 152	148 148 150 149	128 128 130 128	20 20 20 21	3.6 4.1 4.3 4.3	2.7 4.4 4.2 4.8	5.0 5.0	PDOA, NWP	- Irrigation water shortage - Increase of production cost(paddy) - Seed supply(paddy) - Land fragmentation(paddy) - Weed problem - Yield decline(upland) - Decline of or poor soil fertility (upland) - Soil erosion(upland) - Market price fluctuation(upland) - Labor shortage - Inadequate deployment of field staff - Poor logistic support	- Large scale demonstration(paddy & crop diversification) - Demonstration of integrated farming system - Demonstration on application of compost - Water management demonstration - Field program with training component - IPM - Water saving culture/trial - Seed production program - Agro-well & new irrigation method - Improvement of logistic support - Staff training
Medium Schemes	Angamuwa 5/ Mahananneriya Maha Galgamuwa Hulugallawewa Meddeketiya Moragoda Anicut	158 193 121 98 194	100 - 150 100 211	198 51 200 200 226	188 44 190 190 192	10 7 10 10 34	4.5 2.7 2.9 3.1 3.8 3.4	4.4 2.7 3.6 3.7 2.5	5.0 5.0			
Minor Schemes	Cascade VI Cascade VII Cascade VIII Cascade IX Cascade V	318 259 271 139 180	86 63 103 136 101	103 123 141 166 112	91 119 137 159 99	12 4 4 7 13	3.2 3.2 3.8 2.8 3.1	4.6 4.4 4.3 2.9 3.0	5.0 5.0	PDOA, CP		

1/: Present - average annual cropping intensity of 5 years from 1994 to 1998, results of Inventory Survey; With Project - proposed annual cropping intensity under the Project

2/: Irrigated paddy yield; results of Questionnaire Survey on 100 schemes by the Study Team, 1999

3/: Target paddy yields under the Project

4/: IPEU = Inter-provincial Extension Unit, Anuradhapura, DOA

5/: Command area included in Rajangana Scheme

Table 9.2 Needs for Support Programmes in Crop Sub-sector by Scheme

Scheme Category	Agricultural Production Plan proposed in the Master Plan						Needs for Support Programs: 1 --- 1st Priority Program 2 --- 2nd Priority Program																				
							1. Trial Programs		2. Field Programs								3. Farmer Training Programs							4. Seed Production Programs		5. Credit Programs	
	Scheme	Command Area (ha)	Cropping Intensity 1/		With Project Cropping Pattern (%)		Adaptive Trials, Paddy	Adaptive Trials, OFC & Vegetables	Demonstration Plots, Paddy	Demonstration Plots, OFC & Vegetables	Cropping Pattern Demonstration	Demonstration Block/Farm, Paddy	Demonstration Farm, OFC	Paddy Productivity Increase Program	IPM, Paddy	IPM, OFC	Induction Training on Project Approaches	Induction Farmer Guidance	Farmer Training	Workshop/Mass Guidance	Rat/Wild Pig Control Campaign	Seed Campaign	Study Tour	Paddy Seed Production Program	OFC Seed Production Program	Cultivation Loans (Paddy)	Cultivation Loans (OFC & vegetables)
			Present	With Project	Paddy	OFC	1-1	1-2	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	3-1	3-2	3-3	3-4	3-5	3-6	3-7	4-1	4-2	5-1	5-2
Major Schemes	Nachchaduwa	2,540	160	200	170	30	2	1	2	1	1	1	1	1	1	1	1	2	1		1	2	1	1	2	1	
	Nuwarawewa	1,134	119	129	113	16	2	1	2	1		1	1	1	2	1	1	2	1		1	2	1		2	2	
	Tissawewa	365	98	112	99	12		2	2	2		1		2	1		1	1	2	1		1	2			2	2
	Rajangana	5,668	-	154	133	21	2	1	2	1	1	1	1	1	1	1	1	1	2	1		1	2	1	1	2	1
	Palukadawela	956	145	148	128	20	2	1	1	1	1	1	1	1	2	1	1	2	1		1	2	2	2	2	2	
	Attaragalla	462	145	148	128	20		2	2	2	2	1		2	1		1	1	2	1		1	2	2		2	2
	Abakolawewa	410	150	150	130	20		2	2	2	2	2	1	2	1		1	1	2	1	2	1	2	2		2	2
Magalle Wewa	2,632	152	149	128	21	2	1	2	1	1	1	1	1	1	1	1	1	2	1		1	2	1	1	2	1	
Medium Schemes	Thuruwila	227	157	180	154	26			2	2		1		2	1		1	1	2	1		1	2			2	2
	Eru Wewa	34	200	200	170	30				2		2		2	1		1	1	2	1		1	2			2	
	Uttimaduwa	93	100	180	172	8			1	2		2		1	1		1	1	2	1	1	1	2			1	
	Periyakulawa	91	121	157	135	11			2	2		2		2	1		1	1	2	1		1	2			1	2
	Maminiyawa	211	110	143	124	19			2	2		1		2	1		1	1	2	1	1	1	2	2		1	2
	Maha Bulankulama	90	103	145	126	19			2	2		2		1	1		1	1	2	1		1	2			2	
	Mahananneriya	158	100	198	188	10	1		1	2		2		1	1		1	1	2	1		1	2	2		2	
	Maha Galgamuwa	193	-	51	44	7	1		1	2		2		1	1		1	1	2	1		1	2	2		2	
	Hulugallawewa	121	150	200	190	10			1	2		2		2	1		1	1	2	1		1	2	2		2	
	Meddeketiya	98	100	200	190	10			2	2		2		2	1		1	1	2	1	2	1	2			2	
Moragoda Anicut	194	211	226	192	34	2	2	1	1	2	1		1	1		1	1	2	1		1	2	2		2	2	
Minor Schemes	Cascade I	303	77	87	79	9	2		2	2		1		2	1		1	1	2	1		1	2	2		2	2
	Cascade II	278	49	76	76	0	2		2			1		2	1		1	1	2	1		1	2	2		1	
	Cascade III	412	133	164	141	23	2		2	1	2	1		2	1		1	1	2	1		1	2	2		1	1
	Cascade IV	350	51	107	104	2	1		1	2		1		1	1		1	1	2	1		1	2	2		1	1
	Cascade V	180	101	112	99	13	2	2	1	2		1		1	1		1	1	2	1		1	2	2		2	2
	Cascade VI	318	86	103	91	12	2	2	2	2		1		2	1		1	1	2	1		1	2	2		1	2
	Cascade VII	259	63	123	119	4	2		2	2		1		2	1		1	1	2	1		1	2	2		1	
	Cascade VIII	271	103	141	137	4			2	2		1		2	1		1	1	2	1		1	2	2		2	
	Cascade IX	139	136	166	159	7	1		1	2		1		1	1		1	1	2	1		1	2			2	

1/: Present - average annual cropping intensity of 5 years from 1994 to 1998; With Project - target annual cropping intensity under the Project

Table 9.9.3 Proposed Support Programmes under the Project (1/3)

I. Agricultural Support Programs - 1/2

Program Category / Program	Program Description	Primary Objectives	Primary Target Areas/Group	Program Cost (Rs.000)	Implementation Agency
I-1. Extension Programs - Field Program					
1. Adaptive Trials	Adaptive trials of site specific package or element technologies on paddy, OFC & vegetables	To develop site specific technologies to improve productivity	Selected target schemes on need basis	30/unit	PDOAs/IPEU
2. Small-scale Demonstration Program (Demonstration Plot)	Demonstration of recommended package or element technologies on paddy, OFC & vegetables; Paddy : 1.0 ha OFC/vegetables: 0.1 & 1.0 ha	To demonstrate recommended practices operated by farmers & potential for productivity increase	Schemes where still exist substantial yield gaps	16/unit(paddy) 10/unit(OFC)	PDOAs/IPEU
3. Cropping Pattern Demonstration Program	Demonstration of proposed cropping pattern of paddy-OFC Paddy-OFC: 5 ha	To demonstrate crop diversification To improve cropping intensity and rationalization of land & water use	Schemes still have substantial room to improve cropping intensity	64/unit	PDOAs/IPEU
4. Large-scale Demonstration Program (Demonstration Block/Farm)	Large scale demonstration for improvement of productivity through introduction of recommended or appropriate technologies on paddy & OFC Block: Paddy 20 - 30 ha or 1 minor scheme Farm: Paddy & OFC: 5 ha	To promote adoption of recommended or appropriate technologies by FO or farmer group	Schemes where still exist substantial room for productivity increase	130/unit(block) 40/unit(farm/paddy) 30/unit(farm/OFC)	PDOAs/IPEU
5. Productivity Increase Program	Large scale package program for improvement of paddy productivity; (integrated with cultivation loan) 25 ha or 1 minor scheme	To promote adoption of package technology to increase productivity	FOs/farmer groups having intention to adopt package technology	20/unit	PDOAs/IPEU
6. Integrated Pest Management (IPM)	Large scale operation of IPM (Integrated Pest Management) on paddy & OFC 20 - 30 ha or 1 minor scheme	Introduction of IPM for pest & disease control	Selected target schemes on need basis	100/unit	PDOAs/IPEU
I-2. Extension Programs - Farmer Training Program					
1. Induction Farmer Training	Guidance on supporting services under the Project to representatives of FOs/farmer groups	Dissemination of approaches taken under the Project; farmer to farmer	Representatives FOs/farmer groups of target schemes of the Project	28/unit	PDOAs/IPEU
2. Induction Farmer Guidance	Guidance by representatives participated in induction training on supporting services under the Project	Dissemination of approaches taken under the Project	All beneficiaries or representatives of them of target schemes	8/unit	PDOAs/IPEU
3. Farmer Training	Farmer training on specific subjects; representatives of FOs/farmer groups; (on need basis)	Training of farmer representatives on specific subjects	Selected target schemes on need basis	30/unit	PDOAs/IPEU
4. Workshop/Mass Guidance	Workshop on program formulation(seasonal) Mass guidance on specific subjects(on need basis)	Participatory planning of programs Guidance on specific subjects	All target schemes on need basis Workshop for initial 2 years	5/unit	PDOAs/IPEU
5. Campaign (seed, wild animal control etc.)	Village level campaign for quality seed adoption or rat/wild pig control	Dissemination of adoption of quality seed or cooperative rat/wild pig control	Schemes with low adoption rate of quality seed or suffering rat/wild pig	10/unit	PDOAs/IPEU
6. Study Tour	Field visits to advanced schemes	To learn from advanced farmers/FOs	Representatives of FOs/farmer groups	13/unit	PDOAs/IPEU

Note: Program cost estimates are detailed in Table R 3.2 of Appendix R of Volume II Appendixes-2 Feasibility Study

Table 9.9.3 Proposed Support Programmes under the Project (2/3)

I. Agricultural Support Programs - 2/2

Program Category / Program	Program Description	Primary Objectives	Primary Target Areas/Group	Program Cost (Rs.000)	Implementation Agency
I-3. Seed Production Program					
1. Seed Production Program (paddy & OFC)	Self production & supply of quality paddy or OFC seed within schemes or FOs	To improve & ensure quality seed supply through self production program	Selected target schemes on need basis Preferably, advanced farmers	7/unit	PDOA/IPEU
I-4. Agricultural Credit Program					
1. Cultivation Loan Program (paddy & OFC)	Provision of cultivation loans with group loan arrangement & under revolving arrangement; to be implemented in an integrated manner with "productivity increase program"	To support adoption of package technology to increase productivity	FOs/farmers groups having intention to adopt package technology	15/ha	PMU, DAS
2. Medium Term Credit Program	Provision of credit with group loan arrangement for purchasing farm machinery/equipment & animal and construction of farm facilities	To support FO/farmer group by providing capital for procurement & construction	FOs/farmers groups	500/unit handtractor assumed	Banks/PMU
I-5. Institutional Strengthening Program					
1. Logistic Support Strengthening Program					
1) Provision of Motor Cycle	Provision of motor cycles to PDOA/IPEU	Improvement of logistic support status	PDOA, NCP & NWP & IPEU	1,200/unit	PDOAs/IPEU
2) Provision of Computer Set	Provision of computer sets to PDOA/IPEU for monitoring supporting programs under the Project	To support establishment of project monitoring & evaluation activities	PDOA, NCP & NWP & IPEU	200/set	PDOAs/IPEU
2. Staff Training Program					
1) Induction Staff Training	Induction training of PDOA/IPEU staff & AI	Guidance on the Project & training of target groups on Project activities	All staffs & AIs concerned with the Project	42/unit	PDOAs/IPEU
2) Refresher Training/In-service Training	In-service training of PDOA/IPEU staff & AI	Training/guidance on specific subjects	Staffs & AIs on need basis	42/unit	PDOAs/IPEU
3. Institutional Strengthening					
1) Strengthening of Guidance, Supervision & Coordination	Allocation of costs for guidance, supervision, coordination & field operations	Improvement of logistic support status	PDOA, NCP & NWP & IPEU		PDOAs/IPEU
2) Strengthening of Research-Extension-Farmer Linkage	Provision of budget for strengthening of PTWG & Diagnostic Teams	To strengthen of Research-Extension-Farmer Linkage	PDOA, NCP & NWP & IPEU		PDOAs/IPEU
4. Upgrading of ISTI, Maha Illuppallama	Provision of training equipment & transport vehicle Components: training equipment & 1 vehicle(bus)	To improve & strengthen training services of ISTI	ISTI, Maha Illuppallama	9,900/program	PDOA, NCP

II. Strengthening of Farmers & FOs Support Institutions & Facilities -1/2

Program Category / Program	Program Description	Primary Objectives	Primary Target Areas/Group	Program Cost (Rs.000)	Implementation Agency
II-1. Strengthening of Farmers/FOs Support Facilities					
1. Establishment of "Farmer Center"	Establishment of multipurpose farmer centers at related GN divisions; Center with rooms for FO & FA/ADPA office & store, space for meeting, temporary storage of inputs & collection/selection of farm products etc.	Deployment of multipurpose center to support FOs/farmer groups/farmers	Project related FOs	1,320/center	DAS

Note: Program cost estimates are detailed in Table R 3.2 of Appendix R of Volume II Appendixes-2 Feasibility Study

Table 9.9.3 Proposed Support Programmes under the Project (3/3)

II. Strengthening of Farmers & FOs Support Institutions & Facilities - 2/2

Program Category / Program	Program Description	Primary Objectives	Primary Target Areas/Group	Program Cost (Rs.000)	Implementation Agency
II-1. Strengthening of Farmers/FOs Support Facilities - continued					
2. AS Center Strengthening Program					
1) Provision of Motor Cycles	Provision of motor Cycles to project related ASCs;	Strengthening ASC activities	Project related 3 ASCs	1,200/unit	PMU
2) Renovation of AS Center Building and/or Provision office/Training Equipment	Renovation of project related ASC Centers Provision office equipment to project related ASCs	Strengthening ASC activities	Project related 4 ASCs	600/center	PMU
II-2. Strengthening of Farmers/FOs Support Institutions					
1. Provision of Vehicles/DAS	Provision of vehicles to project related DASs	Strengthening of activities of DAS	Project related 2 DAS district offices	1,200/unit	DAS
2. Staff Training					
1) Induction Training of DO	Induction Training of DOs in project related ASCs	To provide guidance on Project & support programs	DOs stationed in project related ASCs	42/unit	DAS
2) Induction Training of ADPA	Induction Training of ADPAs assigned to project related GN divisions	To provide guidance on Project & technical & extension skills	ADPAs in project related GN divisions	42/unit	DAS
3) Refresher Training	Seasonal refresher training of DOs & ADPAs in project related ASCs or GN divisions	To improve management & technical skills & M&E of support programs	DOs & ADPAs in project related ASCs & GN divisions	42/unit	DAS

III. Support Programs for Income Generation

Program Category / Program	Program Description	Primary Objectives	Primary Target Areas/Group	Program Cost (Rs.000)	Implementation Agency
III-1. Crop Sub-sector					
1. Upgrading of Seed Farm, Galgamuwa	Renovation of Seed Farm for increased production of quality planting materials (fruits) & for provision of training to private nursery Components: 4 sheds, irrigation system, water pump, office, training equipment, vehicle etc.	To expand supply of quality planting materials in the Project areas	Provincial Seed Farm, Galgamuwa	11,145/program	PDOA, NWP
III-2. Livestock Sub-sector					
1. Upgrading of IFTC, Nikaweratiya	Expansion of training facilities & provision of motor cycles Components: 1 training building, 1 hostel, 1 manager quarter, 1 dairy shed, 1 vehicle(micro-bus)	Improvement of extension coverage for strengthening of farmer training	IFTC, Nikaweratiya	9,214/program	PDAPH, NWP
2. Provision of Vehicle	Provision of vehicles to veterinary surgeon offices 1 VS Office in Galgamuwa	To strengthen mobile veterinary & extension services	Major milk producing divisions	1,200/unit	PDAPH, NWP
III-3. Inland Fisheries Sub-sector					
I. Inland Fisheries Support Facilities					
1) Establishment of Aqua-culture Extension Center, Anuradhapura	Establishment of Aqua-cultural Extension Center Components: center building(office & lecture room) training equipment, office facilities, motor cycles	To establish inland fishery extension services in the Project areas	Anuradhapura	3,050/center	NAQDA

Note: Program cost estimates are detailed in Table R 3.2 of Appendix R of Volume II Appendixes-2 Feasibility Study

Table 9.9.4 Annual and Overall Work Programmes of Support Services under the Project: Agricultural Support Programmes by Scheme

Sector/Sub-sector/Programs	Unit	Years after Commencement of Project Implementation														Implementation Agency		
		1st		2nd		3rd		4th		5th		6th		7th			Total	
		Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount		Q'ty	Amount
Awareness Program																		
Implementation Schedule of Irrigation Works																		
I. Agricultural Support Programs																		
I-1. Extension Program - Field Programs																		
1-1. Adaptive Trials, Paddy	unit		20	600	28	840	2	60								50	1,500	IPEU, PDOAs
1-2. Adaptive Trials, OFC & Vegetables	unit		14	420	19	570	11	330								44	1,320	IPEU, PDOA
1-3. Demonstration Plots, Paddy	unit		58	928	112	1,792	71	1,136	9	144						250	4,000	IPEU, PDOAs
1-4. Demonstration Plots, OFC & Vegetables	unit		39	390	104	1,040	107	1,070	62	620	38	380	12	120	362	3,620	IPEU, PDOAs	
1-5. Cropping Pattern Demonstration	unit		2	128	4	256	13	832	12	768	11	704	3	192	45	2,880	IPEU, PDOAs	
1-6. Demonstration Block, Paddy	unit		4	520	13	1,690	16	2,080	16	2,080	10	1,300	4	520	63	8,190	IPEU, PDOA	
1-7. Demonstration Farm, Paddy	unit		7	280	44	1,760	40	1,600	10	400					101	4,040	IPEU, PDOAs	
1-8. Demonstration Farm, OFC	unit		1	30	5	150	8	240	16	480	11	330	2	60	43	1,290	IPEU, PDOA	
1-9. Paddy Productivity Increase Program	unit				45	900	50	1,000	41	820	27	540	10	200	173	3,460	IPEU, PDOAs	
1-10 IPM, Paddy	unit		6	600	41	4,100	31	3,100	20	2,000	10	1,000	4	400	112	11,200	IPEU, PDOAs	
1-11 IPM, OFC	unit						3	300	8	800	7	700	2	200	20	2,000	IPEU, PDOA	
Sub-total			0	3,896		13,098		11,748		8,112		4,954		1,692		43,500		
I-2. Extension Program - Farmer Training Programs																		
2-1. Induction Farmer Training	unit		36	1,008											36	1,008	IPEU, PDOAs	
2-2. Induction Farmer Guidance	unit		174	1,392											174	1,392	IPEU, PDOAs	
2-3. Farmer Training	unit				35	1,050	35	1,050	19	570	12	360	6	180	107	3,210	IPEU, PDOAs	
2-4. Workshop/Mass Guidance	unit		36	180	59	295	34	170	17	85	10	50	3	15	159	795	IPEU, PDOAs	
2-5. Seed Campaign	unit		6	60	48	480	25	250	9	90					88	880	IPEU, PDOAs	
2-6. Rat/Wild Pig Control Campaign	unit		1	10	4	40									5	50	IPEU, PDOAs	
2-7. Study Tour	unit				25	325	12	156	15	195	6	78	3	39	61	793	IPEU, PDOAs	
Sub-total			0	2,650		2,190		1,626		940		488		234		8,128		
I-3. Seed Production Programs																		
3-1. Paddy Seed Production Program	ha					150	1,050	180	1,260	145	1,015	10	70			485	3,395	IPEU, PDOAs
3-2. OFC Seed Production Program	ha							30	210	65	455	20	140			115	805	IPEU, PDOA
Sub-total			0	0		1,050		1,470		1,470		210		0		4,200		
Agricultural Support Programs Total (I-1 to I-3)			0	6,546		16,338		14,844		10,522		5,652		1,926		55,828		
I-4. Agricultural Credit Programs																		
4-1. Cultivation Loans (Paddy)	ha					1,125	16,875	1,275	19,125	1,025	15,375	675	10,125	250	3,750	4,350	65,250	PMU
4-2. Cultivation Loans (OFC & vegetables)	ha					90	1,350	300	4,500	320	4,800	280	4,200	100	1,500	1,090	16,350	PMU
Credit Program Sub-total	ha					1,215	18,225	1,575	23,625	1,345	20,175	955	14,325	350	5,250	5,440	81,600	
4-3. Medium Term Credit Program	unit					57	28,500	58	29,000	53	26,500	6	3,000			174	87,000	PMU
Credit Program Total			0	0		46,725		52,625		46,675		17,325		5,250		168,600		
Total Program Costs by Scheme			0	6,546		63,063		67,469		57,197		22,977		7,176		224,428		
II. Strengthening of Farmers & FOs Support Institution/Facilitates																		
II-1. Establishment of Farmers/FOs Support Facilities																		
1-1. Establishment of "Farmer Center"	unit					132	174,240	36	47,520	14	18,480					182	240,240	DASs

Table 9.9.5 Annual and Overall Work Programmes of Support Services under the Project - 1/2: Province or District Base Programmes - 1

Unit: Rs.000

	Unit	Unit Cost (Rs. 000)	Years after Commencement of Project														Total		Implementation Agency		
			1st		2nd		3rd		4th		5th		6th		7th		Q'ty	Amount			
			Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount			
I. Agricultural Support Programs																					
I-5. Institutional Strengthening Program																					
5-1. Logistic Support Strengthening Program																					
Provision of Motor Cycle																					
- IPEU	unit	100			1	100	1	100										2	200	IPEU	
- PDOA, NCP	unit	100			1	100	1	100										2	200	PDOA, NCP	
- PDOA, NWP	unit	100			1	100	1	100										2	200	PDOA, NWP	
Provision of Computer Set																					
- IPEU	set	200			1	200	1	200										2	400	IPEU	
- PDOA, NCP	set	200			1	200	1	200										2	400	PDOA, NCP	
- PDOA, NWP	set	200			1	200	1	200										2	400	PDOA, NWP	
Sub-total						900		900											1,800		
5-2. Staff Training Program																					
Induction Staff Training																					
- PDOA, NCP & IPEU	unit	42	1	42														1	42	IPEU/PDOA	
- PDOA, NWP	unit	42	1	42														1	42	PDOA, NWP	
Refresher/In-service Training																					
- PDOA, NCP & IPEU	unit	42			2	84	2	84	2	84	2	84	2	84	1	42	11	462	IPEU/PDOA		
- PDOA, NWP	unit	42			2	84	2	84	2	84	2	84	2	84	1	42	11	462	PDOA, NWP		
Sub-total				84		168		168		168		168		168		84			1,008		
5-3. Institutional Strengthening																					
Strengthening of Guidance/Supervision/Coordination																					
- IPEU	unit			200		500		1000		1000		1000		500		500			4,700	IPEU	
- PDOA, NCP	unit			100		250		500		500		250		150		150			1,900	PDOA, NCP	
- PDOA, NWP	unit			200		500		1000		1000		1000		500		300			4,500	PDOA, NWP	
Strengthening of Research-Extension-Farmer Linkage																					
- PDOA, NCP & IPEU	unit			200		600		600		600		600		600		400			3,600	IPEU/PDOA	
- PDOA, NWP	unit			200		500		500		500		500		300		200			2,700	PDOA, NWP	
Sub-total				900		2,350		3,600		3,600		3,350		2,050		1,550			17,400		
5-4. Upgrading of ISTI, Maha Illuppallama																					
unit		9,900			1	9,900												1	9,900	PDOA, NCP	
Institutional Strengthening Total																					
				984		13,318		4,668		3,768		3,518		2,218		1,634			30,108		
II. Strengthening of Farmers & FOs Support Institution/Support Facilities																					
II-1. Strengthening of Farmers/FOs Support Facilities																					
1-1. Establishment of "Farmer Center"																					
unit		1,320					132	174,240	36	47,520	14	18,480						182	240,240	DASs	
1-2. AS Center Strengthening Program																					
Provision of Motor Cycle/AS Center																					
- DAS, Anuradhapura	unit	100			4	400												4	400	PMU	
- DAS, Kurunegala	unit	100			5	500												5	500	PMU	
Renovation of Building, Office/Training Equipment																					
- DAS, Anuradhapura	unit	600			5	3,000												5	3,000	PMU	
- DAS, Kurunegala	unit	600			5	3,000												5	3,000	PMU	
Sub-total						6,900													6,900		
Farmers/FOs Support Facilities Total																					
						6,900		174,240		47,520		18,480							247,140		

Table 9.9.5 Annual and Overall Work Programmes of Support Services under the Project - 2/2: Province or District Base Programmes - 2

Unit: Rs.000

	Unit	Unit Cost (Rs. 000)	Years after Commencement of Project														Total		Implementation Agency		
			1st		2nd		3rd		4th		5th		6th		7th		Q'ty	Amount			
			Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount	Q'ty	Amount			
II. Strengthening of Farmers & FOs Support Institution/Support Facilities																					
II-2. Strengthening of Farmers/FOs Support Institutions																					
2-1. Provision of Vehicle/DAS Office																					
DAS, Anuradhapura	unit	1,200			1	1,200												1	1,200	DAS, Anuraqdhapura	
DAS, Kurunegala	unit	1,200			1	1,200												1	1,200	DAS, Kurunegala	
Sub-total						2,400													2,400		
2-2. Staff Training Program																					
Induction & Refresher Training of DO																					
- DAS, Anuradhapura	unit	42	1	42	2	84	2	84	2	84	2	84	2	84	1	42	12	504	DAS, Anuraqdhapura		
- DAS, Kurunegala	unit	42	1	42	2	84	2	84	2	84	2	84	2	84	1	42	12	504	DAS, Kurunegala		
Induction Training of ADPA																					
- DAS, Anuradhapura	unit	42	5	210														5	210	DAS, Anuraqdhapura	
- DAS, Kurunegala	unit	42	5	210														5	210	DAS, Kurunegala	
Refresher Training																					
- DAS, Anuradhapura	unit	42			10	420	10	420	10	420	10	420	10	420	5	210	55	2,310	DAS, Anuraqdhapura		
- DAS, Kurunegala	unit	42			10	420	10	420	10	420	10	420	10	420	5	210	55	2,310	DAS, Kurunegala		
Sub-total				504		1,008		1,008		1,008		1,008		1,008		504		6,048			
Farmers/FOs Support Institutions Total				504		3,408		1,008		1,008		1,008		1,008		504		8,448			
Farmers/FOs Support Institution/Facilities Total				504		10,308		175,248		48,528		19,488		1,008		504		255,588			
III. Support Programs for Income Generation																					
III-1. Crop Sub-sector																					
1-1. Upgrading of Seed Farm, Galgamuwa																					
	unit	11,145			1	11,145												1	11,145	PDOA, NWP	
III-2. Livestock Sub-sector																					
2-1. Upgrading of IFTC, Nikaweratiya																					
	unit	9,214			1	9,214												1	9,214	PDAPH, NWP	
2-2. Provision of Motor Cycle																					
- PDAPH, NCP	unit	100			2	200	2	200										4	400	PDAPH, NWP	
- PDAPH, NWP	unit	100			2	200	2	200										4	400	PDAPH, NWP	
Livestock Sub-sector Total						9,614		400											10,014		
III-3. Inland Fisheries Sub-sector																					
3-1. Establishment of Aqua-culture Extension Center																					
	unit	3,250			1	3,250			1	3,250								2	6,500	NAQDA	
Programs for Income Generation Total				0		24,009		400		3,250		0		0		0			27,659		
Programs by Province & District Base				1,488		47,635		180,316		55,546		23,006		3,226		2,138			313,355		
Program Costs by Scherme 1/						6,546		63,063		67,469		57,197		22,977		7,176			224,428		
Overall Program Costs 1/				1,488		54,181		243,379		123,015		80,203		26,203		9,314			537,783		

1/: Including credit program costs

Table 9.9.6 Basic Time Framework for Planning and Implementation of Agricultural Support Programmes

Cropping Season / Activities	Fiscal Year -1						Fiscal Year 1								Responsive Parties	
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.		
Yala Season Cropping																
Maha Season Cropping																
PTWG(Provincial Technical Working Group)																PDOAs/IPEU & Research Institutes
Diagnostic Teams																PDOAs/IPEU & Research Institutes
For Annual Programs																
Workshop for Program Formulation (Annual)																PMU, PDOAs/IPEU, FOs
Program Formulation (Annual)																PMU, PDOAs/IPEU, FOs
Preparation of AWP (Annual)																PMU, PDOAs/IPEU
Budget Arrangement (Annual)																PMU, PDOAs/IPEU
Preparation of Action Plan (Annual)																PMU, PDOAs/IPEU
For Yala Season Programs																
Preparation for Implementation (Yala Prog.)																PMU, PDOAs/IPEU, FOs
Program Guidance/Training (Yala Prog.)																PMU, PDOAs/IPEU, DAS, FOs, Farmers
Program Implementation (Yala Prog.)																PMU, PDOAs/IPEU, DAS, FOs, Farmers
For Maha Season Programs																
Workshop for Program Review (Maha Prog.)																PMU, PDOAs/IPEU, FOs
Seasonal Review of AWP (Maha Prog.)																PMU, PDOAs/IPEU
Review of Action Plan (Maha Prog.)																PMU, PDOAs/IPEU
Preparation for Implementation (Maha Prog.)																PMU, PDOAs/IPEU, FOs
Program Guidance/Training (Maha Prog.)																PMU, PDOAs/IPEU, DAS, FOs, Farmers
Program Implementation (Maha Prog.)																PMU, PDOAs/IPEU, DAS, FOs, Farmers
M & E of Program Implementation																PMU, PDOAs/IPEU
Divisional Agricultural Committee (Monthly)																
District Agricultural Committee (Monthly)																

Table 11.2.1 Financial Project Costs

(Unit: Rs.1,000)

Code No.	Name of Scheme	Com-manding Area (ha)	Rehabilitation and Improvement Costs for Irrigation Facilities and Farm Roads			Capital Costs for Project Management and Support Facilities				Costs for Awareness and Training Programmes						Admini-stration Cost	Engi-neering Cost (10%)*3	Grand Total	Cost per Hectare		
			Direct Cost	Contin-gency	Total	Farmer Centres	Others	Contin-gency (5%)	Total	Aware-ness Pro-gramme	Support Pro-gramme for Farmers/ FOs	Follow-up Pro-gramme	Others	Contin-gency (5%)	Total				(Rs/ha)	(US\$/ha)	
1MA-01	Nachchaduwa Wewa	2,540	343,560	51,530	395,090	18,480	24,237	2,135	44,852	7,324	1,174	1,233	13,012	1,139	23,882	23,088	46,382	533,294	210,000	2,960	
1MA-02	Nuwarawewa	1,134	53,920	8,090	62,010	10,560	10,820	1,069	22,449	3,138	502	551	5,585	490	10,266	9,934	9,473	114,132	100,600	1,420	
1MA-03	Tissawewa	365	20,725	3,110	23,835	3,960	3,482	371	7,813	1,569	252	177	1,919	195	4,112	3,604	3,576	42,940	117,600	1,660	
2MA-01	Rajangana Wewa*1	5,668	597,920	89,690	687,610	55,440	54,084	5,476	115,000	29,290	4,690	2,753	23,550	3,008	63,291	49,650	86,590	1,002,141	176,800	2,490	
4MA-01	Palukadawela	956	51,040	7,660	58,700	9,240	9,123	919	19,282	3,661	586	464	5,509	511	10,731	9,202	8,871	106,786	111,700	1,570	
4MA-02	Attaragalla Wewa	462	-	-	-	3,960	4,408	419	8,787	3,661	586	224	2,243	336	7,050	4,529	1,584	21,950	47,500	670	
4MA-03	Abakola Wewa	410	16,760	2,510	19,270	3,960	3,910	394	8,264	3,138	502	199	2,170	302	6,311	3,796	3,385	41,026	100,100	1,410	
5MA-01	Magallewewa	2,632	110,223	16,530	126,753	26,400	25,114	2,577	54,091	5,755	922	1,278	10,949	943	19,847	24,522	20,069	245,282	93,200	1,310	
1ME-01	Thuruweli Wewa	227	8,700	870	9,570	1,320	2,166	175	3,661	523	84	110	1,234	98	2,049	1,994	1,528	18,802	82,800	1,170	
1ME-02	Eru wewa	34	4,090	410	4,500	1,320	325	81	1,726	523	84	17	438	52	1,114	144	734	8,218	241,700	3,400	
1ME-03	Uttimaduwa Wewa	93	6,440	640	7,080	1,320	888	111	2,319	523	84	45	785	72	1,509	909	1,091	12,908	138,800	1,950	
1ME-04	Periyakulama	91	16,230	1,620	17,850	-	868	42	910	523	84	44	865	76	1,592	901	2,035	23,288	255,900	3,600	
1ME-05	Maminiya Wewa	211	26,530	2,650	29,180	1,320	2,014	168	3,502	523	84	102	1,116	93	1,918	1,922	3,460	39,982	189,500	2,670	
1ME-06	Mahabulankulama	90	11,050	1,110	12,160	1,320	858	108	2,286	523	84	44	728	70	1,449	893	1,590	18,378	204,200	2,880	
2ME-01	Angamuwawewa*2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4ME-01	Mahananeriyawewa	158	12,760	1,280	14,040	1,320	1,507	142	2,969	523	84	77	1,291	99	2,074	2,231	1,908	23,222	147,000	2,070	
4ME-02	Mahagalgamuwawewa	193	16,650	1,670	18,320	2,640	1,841	224	4,705	1,569	252	94	1,245	158	3,318	1,850	2,634	30,827	159,700	2,250	
5ME-01	Hulugalla Wewa	121	1,680	170	1,850	2,640	1,155	189	3,984	523	84	59	919	80	1,665	1,021	750	9,270	76,600	1,080	
6ME-01	Meddeketiya Wewa	98	230	20	250	3,960	935	244	5,139	2,092	336	48	975	173	3,624	925	901	10,839	110,600	1,560	
6ME-02	Moragoda Anicut	194	-	-	-	5,280	1,851	356	7,487	1,569	252	94	1,300	160	3,375	1,850	1,086	13,798	71,100	1,000	
I	8 Minor Schemes	303	11,000	550	11,550	9,240	2,892	606	12,738	4,184	670	147	2,197	360	7,558	2,823	3,185	37,854	124,900	1,760	
II	8 Minor Schemes	278	9,920	500	10,420	7,920	2,654	528	11,102	4,184	670	135	2,123	356	7,468	2,727	2,899	34,616	124,500	1,750	
III	10 Minor Schemes	412	24,780	1,240	26,020	10,560	3,930	723	15,213	5,230	838	200	2,899	459	9,626	3,804	5,086	59,749	145,000	2,040	
IV	9 Minor Schemes	349	8,950	450	9,400	9,240	3,341	628	13,209	4,707	754	169	2,459	404	8,493	3,023	3,110	37,235	106,600	1,500	
V	10 Minor Schemes	179	7,320	370	7,690	9,240	1,718	549	11,507	5,230	838	87	1,808	398	8,361	1,786	2,756	32,100	179,300	2,530	
VI	11 Minor Schemes	318	13,820	690	14,510	11,880	3,036	746	15,662	5,753	922	154	2,521	468	9,818	2,887	3,999	46,876	147,500	2,080	
VII	10 Minor Schemes	260	17,020	850	17,870	10,560	2,472	652	13,684	5,230	838	126	2,127	415	8,736	2,647	4,029	46,966	180,800	2,550	
VIII	10 Minor Schemes	271	9,120	460	9,580	10,560	2,585	657	13,802	5,230	838	132	2,074	414	8,688	2,695	3,207	37,972	140,100	1,970	
IX	4 Minor Schemes	139	3,910	200	4,110	5,280	1,326	331	6,937	2,092	336	67	1,319	191	4,005	1,093	1,505	17,650	127,000	1,790	
	Majot	14,167	1,194,148	179,120	1,373,268	132,000	135,178	13,360	280,538	57,536	9,214	6,879	64,937	6,924	145,490	128,325	179,930	2,107,551	148,800	2,100	
	Medium	1,510	104,360	10,440	114,800	22,440	14,408	1,840	38,688	9,414	1,512	734	10,896	1,131	23,687	14,640	17,717	209,532	138,800	1,950	
	Minor	2,509	105,840	5,310	111,150	84,480	23,954	5,416	113,854	41,840	6,704	1,217	19,527	3,465	72,753	23,485	29,776	351,018	139,900	1,970	
	All Schemes	18,186	1,404,348	194,870	1,599,218	238,920	173,540	20,620	433,080	#####	17,430	8,830	95,360	11,520	241,930	166,450	227,423	2,668,101	146,700	2,070	

*1 Including Angamuwawewa

*2 Part of the Rajangana irrigation scheme

*3 10% of rehabilitation and improvement, capital costs for project management and support facilities, and awareness and training programmes.

Table 12.2.1 Economic Project Costs

(Unit: Rs.1,000)

Code No.	Name of Scheme	Com-manding Area (ha)	Rehabilitation and Improvement Costs for Irrigation Facilities and Farm Roads			Capital Costs for Project Management and Support Facilities				Costs for Awareness and Training Programmes						Admini-stration Cost	Engi-neering Cost (10%)*3	Grand Total	Cost per Hectare		
			Direct Cost	Contin-gency	Total	Farmer Centres	Others	Contin-gency (5%)	Total	Aware-ness Pro-gramme	Support Pro-gramme for Farmers/ FOs	Follow-up Pro-gramme	Others	Contin-gency (5%)	Total				(Rs/ha)	(US\$/ha)	
1MA-01	Nachchaduwa Wewa	2,540	326,382	48,954	375,336	17,556	23,025	2,028	42,609	6,958	1,115	1,171	12,361	1,082	22,687	21,934	44,063	506,629	199,500	2,810	
1MA-02	Nuwarawewa	1,134	51,224	7,686	58,910	10,032	10,279	1,016	21,327	2,981	477	523	5,306	466	9,753	9,437	8,999	108,426	95,600	1,350	
1MA-03	Tissawewa	365	19,689	2,955	22,644	3,762	3,308	352	7,422	1,491	239	168	1,823	185	3,906	3,424	3,397	40,793	111,800	1,570	
2MA-01	Rajangana Wewa*1	5,668	568,024	85,206	653,230	52,668	51,380	5,202	109,250	27,826	4,456	2,615	22,373	2,858	60,128	47,168	82,261	952,037	168,000	2,370	
4MA-01	Palukadawela	956	48,488	7,277	55,765	8,778	8,667	873	18,318	3,478	557	441	5,234	485	10,195	8,742	8,427	101,447	106,100	1,490	
4MA-02	Attaragalla Wewa	462	-	-	-	3,762	4,188	398	8,348	3,478	557	213	2,131	319	6,698	4,303	1,505	20,854	45,100	640	
4MA-03	Abakola Wewa	410	15,922	2,385	18,307	3,762	3,715	374	7,851	2,981	477	189	2,062	287	5,996	3,606	3,216	38,976	95,100	1,340	
5MA-01	Magallewewa	2,632	104,712	15,704	120,416	25,080	23,858	2,448	51,386	5,467	876	1,214	10,402	896	18,855	23,296	19,066	233,019	88,500	1,250	
1ME-01	Thuruweli Wewa	227	8,265	827	9,092	1,254	2,058	166	3,478	497	80	105	1,172	93	1,947	1,894	1,452	17,863	78,700	1,110	
1ME-02	Eru wewa	34	3,886	390	4,276	1,254	309	77	1,640	497	80	16	416	49	1,058	137	697	7,808	229,600	3,230	
1ME-03	Uttimaduwa Wewa	93	6,118	608	6,726	1,254	844	105	2,203	497	80	43	746	68	1,434	864	1,036	12,263	131,900	1,860	
1ME-04	Periyakulama	91	15,419	1,539	16,958	-	825	40	865	497	80	42	822	72	1,513	856	1,933	22,125	243,100	3,420	
1ME-05	Maminiya Wewa	211	25,204	2,518	27,722	1,254	1,913	160	3,327	497	80	97	1,060	88	1,822	1,826	3,287	37,984	180,000	2,540	
1ME-06	Mahabulankulama	90	10,498	1,055	11,553	1,254	815	103	2,172	497	80	42	692	67	1,378	848	1,511	17,462	194,000	2,730	
2ME-01	Angamuwawewa*2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4ME-01	Mahananeriyawewa	158	12,122	1,216	13,338	1,254	1,432	135	2,821	497	80	73	1,226	94	1,970	2,119	1,813	22,061	139,600	1,970	
4ME-02	Mahagalgamuwawewa	193	15,818	1,587	17,405	2,508	1,749	213	4,470	1,491	239	89	1,183	150	3,152	1,758	2,502	29,287	151,700	2,140	
5ME-01	Hulugalla Wewa	121	1,596	162	1,758	2,508	1,097	180	3,785	497	80	56	873	76	1,582	970	713	8,808	72,800	1,030	
6ME-01	Meddeketiya Wewa	98	219	19	238	3,762	888	232	4,882	1,987	319	46	926	164	3,442	879	856	10,297	105,100	1,480	
6ME-02	Moragoda Anicut	194	-	-	-	5,016	1,758	338	7,112	1,491	239	89	1,235	152	3,206	1,758	1,032	13,108	67,600	950	
I	8 Minor Schemes	303	10,450	523	10,973	8,778	2,747	576	12,101	3,975	637	140	2,087	342	7,181	2,682	3,026	35,963	118,700	1,670	
II	8 Minor Schemes	278	9,424	475	9,899	7,524	2,521	502	10,547	3,975	637	128	2,017	338	7,095	2,591	2,754	32,886	118,300	1,670	
III	10 Minor Schemes	412	23,541	1,178	24,719	10,032	3,734	687	14,453	4,969	796	190	2,754	436	9,145	3,614	4,832	56,763	137,800	1,940	
IV	9 Minor Schemes	349	8,503	428	8,931	8,778	3,174	597	12,549	4,472	716	161	2,336	384	8,069	2,872	2,955	35,376	101,300	1,430	
V	10 Minor Schemes	179	6,954	352	7,306	8,778	1,632	522	10,932	4,969	796	83	1,718	378	7,944	1,697	2,618	30,497	170,300	2,400	
VI	11 Minor Schemes	318	13,129	656	13,785	11,286	2,884	709	14,879	5,465	876	146	2,395	445	9,327	2,743	3,799	44,533	140,100	1,970	
VII	10 Minor Schemes	260	16,169	808	16,977	10,032	2,348	619	12,999	4,969	796	120	2,021	394	8,300	2,515	3,828	44,619	171,800	2,420	
VIII	10 Minor Schemes	271	8,664	437	9,101	10,032	2,456	624	13,112	4,969	796	125	1,970	393	8,253	2,560	3,047	36,073	133,100	1,870	
IX	4 Minor Schemes	139	3,715	190	3,905	5,016	1,260	314	6,590	1,987	319	64	1,253	181	3,804	1,038	1,430	16,767	120,600	1,700	
	Majot	14,167	1,134,441	170,167	1,304,608	125,400	128,420	12,691	266,511	54,660	8,754	6,534	61,692	6,578	138,218	121,910	170,934	2,002,181	141,300	1,990	
	Medium	1,510	99,145	9,921	109,066	21,318	13,688	1,749	36,755	8,945	1,437	698	10,351	1,073	22,504	13,909	16,832	199,066	131,800	1,860	
	Minor	2,509	100,549	5,047	105,596	80,256	22,756	5,150	108,162	39,750	6,369	1,157	18,551	3,291	69,118	22,312	28,289	333,477	132,900	1,870	
	All Schemes	18,186	1,334,135	185,135	1,519,270	226,974	164,864	19,590	411,428	#####	16,560	8,389	90,594	10,942	229,840	158,131	216,055	2,534,724	139,400	1,960	

*1 Including Angamuwawewa

*2 Part of the Rajangana irrigation scheme

*3 10% of rehabilitation and improvement, capital costs for project management and support facilities, and awareness and training programmes.

Table 12.2.2 Annual Irrigation Benefit

(Unit: Rs.1,000)

Code No.	Name of Scheme	Without (Present)				With Project								Incremental Benefit	
		Paddy		OFC	Total	Paddy		OFC and Vegetables				Total			
		Maha	Yala			Maha	Yala	Sesame	Chillies	Onion	Pulse		Vegetables		
Major Scheme	1MA-01	Nachchaduwa Wewa	39,480	16,070	-810	54,740	56,240	52,430	1,450	14,220	41,550	5,160	9,430	180,480	125,740
	1MA-02	Nuwarawewa	11,980	-830	310	11,460	25,110	6,730	190	3,520	9,740	1,340	2,500	49,130	37,670
	1MA-03	Tissawewa	3,550	1,320	-	4,870	8,080	870	30	910	2,450	360	670	13,370	8,500
	2MA-01	Rajangana Wewa*1	78,750	75,720	-3,280	151,190	125,490	62,640	1,740	22,530	64,010	8,370	15,460	300,240	149,050
	4MA-01	Palukadawela	14,890	1,870	-330	16,430	21,170	9,470	260	3,610	10,220	1,350	2,500	48,580	32,150
	4MA-02	Attaragalla Wewa	9,970	1,960	40	11,970	10,230	4,580	130	1,750	4,940	650	1,210	23,490	11,520
	4MA-03	Abakola Wewa	8,510	2,440	210	11,160	9,080	4,230	120	1,580	4,470	590	1,090	21,160	10,000
	5MA-01	Magallewewa	45,930	27,180	4,240	77,350	50,770	33,420	930	10,480	30,160	3,850	7,080	136,690	59,340
Medium Scheme	1ME-01	Thuruweli Wewa	3,860	1,860	-160	5,560	5,170	3,790	110	1,230	3,290	420	730	14,740	9,180
	1ME-02	Eru wewa	630	360	250	1,240	770	710	20	210	570	70	120	2,470	1,230
	1ME-03	Uttimaduwa Wewa	900	290	-20	1,170	2,350	1,740	20	140	410	50	80	4,790	3,620
	1ME-04	Periyakulama	1,020	630	150	1,800	2,070	1,070	30	410	1,080	140	250	5,050	3,250
	1ME-05	Maminiya Wewa	2,950	320	-300	2,970	4,800	1,880	50	840	2,180	290	510	10,550	7,580
	1ME-06	Mahabulankulama	680	50	-330	400	2,050	830	20	360	950	130	220	4,560	4,160
	2ME-01	Angamuwawewa*2	-	-	-	-	-	-	-	-	-	-	-	-	-
	4ME-01	Mahananeriya Wewa	1,190	-	470	1,660	4,000	3,630	50	300	860	100	160	9,100	7,440
	4ME-02	Mahagalgamuwawewa	1,740	-	-210	1,530	1,300	850	20	290	770	100	170	3,500	1,970
	5ME-01	Hulugalla Wewa	640	1,060	-	1,700	3,070	2,840	40	240	680	70	130	7,070	5,370
	6ME-01	Meddeketiya Wewa	770	540	90	1,400	2,480	2,280	30	190	540	60	100	5,680	4,280
	6ME-02	Moragoda Anicut	2,940	1,130	20	4,090	5,080	4,470	130	1,350	3,630	460	790	15,910	11,820
Minor Scheme (Hydrological Group)	I	8 Minor Schemes	2,590	-	-220	2,370	5,870	160	-	630	1,520	230	420	8,830	6,460
	II	8 Minor Schemes	1,060	40	670	1,770	5,340	-	-	-	-	-	-	5,340	3,570
	III	10 Minor Schemes	6,510	640	2,580	9,730	8,960	5,850	170	2,000	5,320	690	1,190	24,180	14,450
	IV	9 Minor Schemes	1,050	400	1,210	2,660	7,560	1,750	20	140	420	50	80	10,020	7,360
	V	10 Minor Schemes	1,150	140	1,270	2,560	3,870	630	20	510	1,280	180	330	6,820	4,260
	VI	11 Minor Schemes	2,870	270	490	3,630	6,500	880	20	830	2,060	300	530	11,120	7,490
	VII	10 Minor Schemes	1,750	10	60	1,820	5,440	2,450	30	200	580	60	110	8,870	7,050
	VIII	10 Minor Schemes	2,010	720	-20	2,710	6,860	2,620	30	220	610	70	110	10,520	7,810
	IX	4 Minor Schemes	990	750	100	1,840	3,520	2,140	30	180	510	60	90	6,530	4,690

*1 Including Angamuwawewa

*2 Part of the Rajangana irrigation scheme

Table 14.2.1 Scoring of Irrigation Schemes

Cluster	Code No.	Name of Scheme	Location of the project site (Scor)	Land status (Scor)	Water resources potential		Deterioration & problems of irrigation facilities		Present farmers' participation in maintenance of facilities (Scor)	Present situation of water management		Present activity and performance of FOs		Present Farm Income		Environmental effects (Scor)	Equity development		Economic Viability				
					Increase in Cropping Intensity (%)	Evaluation (Scor)	Rehabilitation cost per Hectare (Rs.1,000)	Evaluation (Scor)		Water management activities (Rank)	Evaluation (Scor)	FOs' activities (Rank)	Evaluation (Scor)	Net Farm Income per Household (Rs.)	Evaluation (Scor)		% of the Poor per Village (%)	Evaluation (Scor)	EIRR (%)	Evaluation (Scor)	B-C (Rs. Million)	Evaluation (Scor)	
Major Schemes																							
1	Nachchaduwa	1MA-01	Nachchaduwa	4	3	42	2	188	4	2	A	1	C	3	34,580	1	5	27	3	17.2	3	523	5
2	Nachchaduwa	1MA-02	Nuwarawewa	5	2	8	1	87	2	2	A	1	C	3	19,860	2	4	15	2	20.8	4	134	3
3	Nachchaduwa	1MA-03	Tissawewa	5	2	7	1	101	3	1	A	1	C	3	32,710	1	3	4	1	14.3	2	23	1
4	Kala Oya 1	2MA-01	Rajangana	3	2	2	1	134	3	1	B	2	C	3	28,100	2	3	11	2	9.4	1	190	4
5	Mi Oya	4MA-01	Palukadawela	3	2	0	1	68	2	1	B	2	C	3	23,630	2	5	11	2	21.3	4	138	3
6	Mi Oya	4MA-02	Attaragallewa	3	2	0	1	68	1	1	B	2	C	3	20,730	2	5	21	3	22.8	4	44	1
7	Mi Oya	4MA-03	Ambakolawewa	3	2	0	1	68	2	1	A	1	C	3	16,820	3	5	19	2	15.1	3	28	1
8	Deduru Oya 1	5MA-01	Magalle Wewa	5	3	0	1	68		1	B	2	B	2	24,580	2	4	22	3	10.6	2	56	2
Medium Schemes																							
1	Nachchaduwa	1ME-01	Thuruwila	4	2	20	1	63	2	2	A	1	C	3	50,170	1	5	23	3	27.5	5	39	1
2	Nachchaduwa	1ME-02	Eru Wewa	2	2	0	1	268	5	2	C	3	C	3	37,110	1	2	26	3	11.0	2	2	1
3	Nachchaduwa	1ME-03	Uttimaduwa	3	2	80	4	141	3	1	C	3	C	3	25,640	2	4	52	5	21.9	4	16	1
4	Nachchaduwa	1ME-04	Periyakulama	5	2	33	2	124	3	2	C	3	C	3	17,430	3	5	44	5	9.8	1	3	1
5	Nachchaduwa	1ME-05	Maminnyawa	4	3	31	2	217	5	1	B	2	C	3	22,650	2	5	4	1	14.7	2	22	1
6	Nachchaduwa	1ME-06	Maha bunankulama	4	2	39	2	227	5	1	C	3	C	3	7,020	4	5	33	4	15.8	3	12	1
7	Kala Oya 1	2ME-01	Angamuwa*1	4	2																		
8	Mi Oya	4ME-01	Mahananneriya	4	2	98	4	123	3	1	B	2	C	3	10,880	3	4	35	4	26.1	5	39	1
9	Mi Oya	4ME-02	Maha galgamuwa	4	2	0	1	198	4	1	C	3	C	3	3,520	4	5	10	2	5.2	1	-5	1
10	Deduru Oya 1	5ME-01	Hulugallawewa	4	2	50	3	17	1	1	C	3	C	3	24,670	2	4	38	4	39.6	5	34	1
11	Deduru Oya 2	6ME-01	Meddeketiya	4	2	100	5	3	1	2	B	2	C	3	21,920	2	5	53	5	25.9	5	21	1
12	Deduru Oya 2	6ME-02	Moragada Anicut	3	2	0	1	0	1	1	B	2	C	3	28,050	2	5	38	4	32.3	5	39	1
Minor Schemes																							
1	Nachchaduwa	I	8 Schemes	3	2	21	1	77	2	2	A	1	C	3	15,330	3	4	19	2	12.7	2	15	1
2	Nachchaduwa	II	8 Schemes	3	2	71	3	68	2	2	C	3	C	3	11,830	3	5	17	2	7.6	1	0	1
3	Nachchaduwa	III	10 Schemes	3	2	16	1	111	3	2	B	2	C	3	10,690	3	4	50	5	17.0	3	49	1
4	Kala Oya 1	IV	9 Schemes	2	2	75	4	76	2	2	B	2	C	3	10,190	3	4	13	2	17.8	3	33	1
5	Kala Oya 2	V	10 Schemes	4	2	21	1	82	2	2	B	2	C	3	19,950	3	5	8	1	5.4	1	-7	1
6	Mi Oya	VI	11 Schemes	3	2	21	1	54	2	2	B	2	C	3	10,870	3	4	32	4	11.6	2	14	1
7	Mi Oya	VII	10 Schemes	3	2	106	5	66	2	2	C	3	C	3	9,080	4	4	39	4	11.6	2	14	1
8	Deduru Oya 1	VIII	10 Schemes	3	2	56	2	54	2	2	B	2	C	3	18,630	3	5	31	4	12.5	2	15	1
9	Deduru Oya 2	IX	4 Schemes	4	2	41	2	75	2	1	A	1	C	3	21,370	2	3	51	5	19.3	3	19	1
Remarks:		*I Part of Rajangana Irrigation Scheme				100 < : 5		200 < : 5			C: Inactive = 3		C: Inactive = 3		10,000 > : 4			40 < : 5		25 < : 5		200 < : 5	
						75-100: 4		150-200: 4			B: Moderate = 2		B: Moderate = 2		10,000-20,000 < : 3			30-40: 4		20-25: 4		150-200: 4	
						50-75: 3		100-150: 3			A: Active = 1		A: Active = 1		20,000-30,000: 2			20-30: 3		15-20: 3		100-150: 3	
						25-50: 2		50-100: 2							30,000 < : 1			10-20: 2		10-15: 2		50-100: 2	
						0-25: 1		0-50 : 1			See Table 7.1.1		See Table 7.1.1		See Table 7.1.1			0-10: 1		10 > : 1		50 > : 1	

Table 14.2.2 Evaluation of the Irrigation Schemes

Cluster	Code No.	Name of Scheme	Location of the project site	Land status	Water resources potential	Deterioration and problems of irrigation facilities	Present farmers' participation in O&M of facilities	Present situation of water management	Present activity and its performance of FOs	Present farm income	Environmental effects	Equity development	Economic Viability		Total Points	
													EIRR	B-C		
Major Schemes																
1	Nachchaduwa	1MA-01	Nachchaduwa	4.0	5.0	6.0	12.0	7.0	1.5	15.0	1.3	5.0	6.0	3.0	5.0	70.8
2	Nachchaduwa	1MA-02	Nuwarawewa	5.0	3.5	3.0	6.0	7.0	1.5	15.0	2.5	4.0	4.0	4.0	3.0	58.5
3	Nachchaduwa	1MA-03	Tissawewa	5.0	3.5	3.0	9.0	3.0	1.5	15.0	1.3	3.0	2.0	2.0	1.0	49.3
4	Kala Oya 1	2MA-01	Rajangana	3.0	3.5	3.0	9.0	3.0	3.5	15.0	2.5	3.0	4.0	1.0	4.0	54.5
5	Mi Oya	4MA-01	Palukadawela	3.0	3.5	3.0	6.0	3.0	3.5	15.0	2.5	5.0	4.0	4.0	3.0	55.5
6	Mi Oya	4MA-02	Attaragallewa	3.0	3.5	3.0	3.0	3.0	3.5	15.0	2.5	5.0	6.0	4.0	1.0	52.5
7	Mi Oya	4MA-03	Ambakolawewa	3.0	3.5	3.0	6.0	3.0	1.5	15.0	3.8	5.0	4.0	3.0	1.0	51.8
8	Deduru Oya 1	5MA-01	Magalle Wewa	5.0	5.0	3.0	-	3.0	3.5	10.5	2.5	4.0	6.0	2.0	2.0	46.5
Medium Schemes																
1	Nachchaduwa	1ME-01	Thuruwila	4.0	3.5	3.0	6.0	7.0	1.5	15.0	1.3	5.0	6.0	5.0	1.0	58.3
2	Nachchaduwa	1ME-02	Eru Wewa	2.0	3.5	3.0	15.0	7.0	5.0	15.0	1.3	2.0	6.0	2.0	1.0	62.8
3	Nachchaduwa	1ME-03	Uttimaduwa	3.0	3.5	12.0	9.0	3.0	5.0	15.0	2.5	4.0	10.0	4.0	1.0	72.0
4	Nachchaduwa	1ME-04	Periyakulama	5.0	3.5	6.0	9.0	7.0	5.0	15.0	3.8	5.0	10.0	1.0	1.0	71.3
5	Nachchaduwa	1ME-05	Maminiyawa	4.0	5.0	6.0	15.0	3.0	3.5	15.0	2.5	5.0	2.0	2.0	1.0	64.0
6	Nachchaduwa	1ME-06	Maha bunankulama	4.0	3.5	3.0	15.0	3.0	5.0	15.0	5.0	5.0	8.0	3.0	1.0	70.5
7	Kala Oya 1	2ME-01	Angamuwa*1	4.0	3.5	-	-	-	-	-	-	-	-	-	-	7.5
8	Mi Oya	4ME-01	Mahananneriya	4.0	3.5	12.0	9.0	3.0	3.5	15.0	3.8	4.0	8.0	5.0	1.0	71.8
9	Mi Oya	4ME-02	Maha galgamuwa	4.0	3.5	3.0	12.0	3.0	5.0	15.0	5.0	5.0	4.0	1.0	1.0	61.5
10	Deduru Oya 1	5ME-01	Hulugallawewa	4.0	3.5	9.0	3.0	3.0	5.0	15.0	2.5	4.0	8.0	5.0	1.0	63.0
11	Deduru Oya 2	6ME-01	Meddeketiya	4.0	3.5	15.0	3.0	7.0	3.5	15.0	2.5	5.0	10.0	5.0	1.0	74.5
12	Deduru Oya 2	6ME-02	Moragada Anicut	3.0	3.5	3.0	3.0	3.0	3.5	15.0	2.5	5.0	8.0	5.0	1.0	55.5
Minor Schemes																
1	Nachchaduwa	I	8 Schemes	3.0	3.5	3.0	6.0	7.0	1.5	15.0	3.8	4.0	4.0	2.0	1.0	53.8
2	Nachchaduwa	II	8 Schemes	3.0	3.5	9.0	6.0	7.0	5.0	15.0	3.8	5.0	4.0	1.0	1.0	63.3
3	Nachchaduwa	III	10 Schemes	3.0	3.5	3.0	9.0	7.0	3.5	15.0	3.8	4.0	10.0	3.0	1.0	65.8
4	Kala Oya 1	IV	9 Schemes	2.0	3.5	12.0	6.0	7.0	3.5	15.0	3.8	4.0	4.0	3.0	1.0	64.8
5	Kala Oya 2	V	10 Schemes	4.0	3.5	3.0	6.0	7.0	3.5	15.0	3.8	5.0	2.0	1.0	1.0	54.8
6	Mi Oya	VI	11 Schemes	3.0	3.5	3.0	6.0	7.0	3.5	15.0	3.8	4.0	8.0	2.0	1.0	59.8
7	Mi Oya	VII	10 Schemes	3.0	3.5	15.0	6.0	7.0	5.0	15.0	5.0	4.0	8.0	2.0	1.0	74.5
8	Deduru Oya 1	VIII	10 Schemes	3.0	3.5	6.0	6.0	7.0	3.5	15.0	3.8	5.0	8.0	2.0	1.0	63.8
9	Deduru Oya 2	IX	4 Schemes	4.0	3.5	6.0	6.0	3.0	1.5	15.0	2.5	3.0	10.0	3.0	1.0	58.5

*1 Part of Rajangana irrigation scheme

Table 15.1.1 Socio-economic Indicators of the Priority Irrigation Schemes

	Nachchaduwa Major Scheme	Palukadawela Major Scheme	Periyakulam Medium Scheme	Mahanan-neriya Medium Scheme	Mahanan-neriya Minor Schemes (Cascade)	Total
1. Villages						
(1) Number of villages (No.)	35	18	1	7	10	71
(2) Historical background of villages						
Traditional (No.)	13	6	1	1	9	30
Settlement (No.)	9	6	-	-	-	15
2. Demographic Feature						
(1) Population (No.)	21,860	7,220	1,000	2,200	2,810	35,090
(2) Household (No.)	6,860	2,170	210	510	730	10,480
(3) Family size (Person/household)	3.2	3.3	4.8	4.3	3.8	3.3
(4) Ethnic group						
Sinhalese (%)	90.0	87.4	100	98.0	100	86.1
Tamil (%)	-	1.0	-	-	-	0.1
Muslim (%)	9.9	11.6	-	2.0	-	13.7
Other (%)	-	-	-	-	-	0.1
(5) Farm household						
• Irrigated Paddy Field						
Idam Himi Govi (No.)	2,380	840	140	360	240	3,960
Anda Govi (No.)	660	210	30	-	190	1,090
Badu (No.)	190	50	10	150	20	420
Total (No.)	3,230	1,100	180	510	450	5,470
• Highland						
Idam Himi Govi (No.)	3,160	780	10	1,500	470	5,920
Anda Govi (No.)	-	-	-	-	-	-
Badu (No.)	-	-	-	-	30	30
Total (No.)	3,160	780	10	1,500	440	5,890
3. Farmers' Organization (FO)						
(1) Number of FO (No.)	14	7	1	1	5	28
(2) Number of member						
Total member (No.)	2,558	927	52	186	301	4,024
Average member per F (No.)	183	132	52	186	60	144
(3) Member by land tenure						
Idam Himi Govi (%)	85.0	96.6	*	69.9	77.1	*
Anda Govi (%)	10.6	3.4	*	-	22.9	*
Badu (%)	4.4	-	*	30.1	-	*
Others (%)	-	-	*	-	-	*
(4) Year established (Year)	1982-1990	1970-1990	1984	1982	1988-1996	1970-1990
(5) Average joining ratio (%)	70	72	25	10	56	43
4. Total Farm Land						
(1) Irrigated paddy field	2,540	956	91	158	117	3,862
(2) Rainfed paddy field (ha)	413	10	-	10	66	499
(3) Highland field (ha)	957	615	81	809	541	3,003
5. Marketing and Processing Facilities						
(1) Pola (Yes/No)	Yes	Yes	No	Yes	Yes	-
(2) Rice Mill (No.)	60	19	3	10	6	98
(3) Grinding mills (No.)	22	3	2	1	2	30
(4) Storage House - Paddy (No.)	2	3	-	-	1	6
(5) Storage House - Fertilisers (No.)	6	1	-	1	1	9

Sources: Data obtained from FOs.

* : No data is available.

Table 15.3.1 OFC Farmers' Interest on OFC Cultivation - PCM workshop participants

Nachchaduwa (Low level)		Nachchaduwa (High level)		Nachchaduwa (Seasonal)		Palkadawela(Tr. 2, 3)		Palkadawela(Prana)		Palkadawela(Tr. 4, 5, 6)		Periyakulama		Mahananneriya		Kallanchiya Arthikulama Palu-mailawewa		Ihalagama Tambarewewa Ihala-Nanneriya	
1 Chilli	46%	1 Chilli	43%	1 Chilli	100%	1 Chilli	89%	1 Chilli	97%	1 Chilli	96%	1 Chilli	100%	1 Chilli	100%	1 Chilli	100%	1 Chilli	100%
2 Red Onion	38%	2 Red Onion	10%	2 Red Onion	56%	2 Red Onion	47%	2 Red Onion	63%	2 Red Onion	74%	2 Red Onion	67%	2 Red Onion	0%	2 Red Onion	32%	2 Red Onion	89%
3 B'Onion	8%	3 B'Onion	33%	3 B'Onion	44%	3 B'Onion	11%	3 B'Onion	20%	3 B'Onion	41%	3 B'Onion	81%	3 B'Onion	0%	3 B'Onion	87%	3 B'Onion	78%
4 Cowpea	0%	4 Cowpea	0%	4 Cowpea	33%	4 Cowpea	0%	4 Cowpea	67%	4 Cowpea	89%	4 Cowpea	95%	4 Cowpea	100%	4 Cowpea	58%	4 Cowpea	72%
5 Greengram	15%	5 Greengram	5%	5 Greengram	22%	5 Greengram	0%	5 Greengram	63%	5 Greengram	63%	5 Greengram	95%	5 Greengram	100%	5 Greengram	61%	5 Greengram	83%
6 Blackgram	69%	6 Blackgram	10%	6 Blackgram	22%	6 Blackgram	0%	6 Blackgram	0%	6 Blackgram	26%	6 Blackgram	52%	6 Blackgram	0%	6 Blackgram	13%	6 Blackgram	72%
7 Soyabean	54%	7 Soyabean	48%	7 Soyabean	0%	7 Soyabean	0%	7 Soyabean	50%	7 Soyabean	0%	7 Soyabean	29%	7 Soyabean	0%	7 Soyabean	24%	7 Soyabean	11%
8 Groundnut	8%	8 Groundnut	5%	8 Groundnut	11%	8 Groundnut	89%	8 Groundnut	77%	8 Groundnut	96%	8 Groundnut	38%	8 Groundnut	100%	8 Groundnut	92%	8 Groundnut	100%
9 Maize	69%	9 Maize	48%	9 Maize	28%	9 Maize	89%	9 Maize	53%	9 Maize	67%	9 Maize	95%	9 Maize	75%	9 Maize	92%	9 Maize	78%
10 Kurakkan	0%	10 Kurakkan	10%	10 Kurakkan	6%	10 Kurakkan	84%	10 Kurakkan	13%	10 Kurakkan	41%	10 Kurakkan	52%	10 Kurakkan	0%	10 Kurakkan	47%	10 Kurakkan	11%
11 Gingelly	23%	11 Gingelly	0%	11 Gingelly	0%	11 Gingelly	0%	11 Gingelly	30%	11 Gingelly	19%	11 Gingelly	67%	11 Gingelly	0%	11 Gingelly	0%	11 Gingelly	61%
12 Cucumber	0%	12 Cucumber	10%	12 Cucumber	0%	12 Cucumber	21%	12 Cucumber	0%	12 Cucumber	4%	12 Cucumber	0%	12 Cucumber	100%	12 Cucumber	0%	12 Cucumber	0%
13 Brinjal	8%	13 Brinjal	29%	13 Brinjal	17%	13 Brinjal	0%	13 Brinjal	23%	13 Brinjal	41%	13 Brinjal	33%	13 Brinjal	100%	13 Brinjal	66%	13 Brinjal	44%
14 Capsicum	0%	14 Capsicum	14%	14 Capsicum	11%	14 Capsicum	16%	14 Capsicum	53%	14 Capsicum	33%	14 Capsicum	0%	14 Capsicum	100%	14 Capsicum	47%	14 Capsicum	56%
15 Tomato	38%	15 Tomato	10%	15 Tomato	33%	15 Tomato	26%	15 Tomato	67%	15 Tomato	67%	15 Tomato	62%	15 Tomato	100%	15 Tomato	58%	15 Tomato	67%
16 Bandakka	62%	16 Bandakka	19%	16 Bandakka	11%	16 Bandakka	42%	16 Bandakka	30%	16 Bandakka	37%	16 Bandakka	52%	16 Bandakka	100%	16 Bandakka	42%	16 Bandakka	56%
17 Battana	15%	17 Battana	5%	17 Battana	0%	17 Battana	0%	17 Battana	3%	17 Battana	44%	17 Battana	33%	17 Battana	100%	17 Battana	39%	17 Battana	0%
18 Long Bean	54%	18 Long Bean	14%	18 Long Bean	39%	18 Long Bean	84%	18 Long Bean	70%	18 Long Bean	85%	18 Long Bean	76%	18 Long Bean	100%	18 Long Bean	61%	18 Long Bean	56%
19 Bushitavo	8%	19 Bushitavo	10%	19 Bushitavo	0%	19 Bushitavo	58%	19 Bushitavo	0%	19 Bushitavo	81%	19 Bushitavo	0%	19 Bushitavo	100%	19 Bushitavo	74%	19 Bushitavo	89%
20 Kakiri	0%	20 Kakiri	19%	20 Kakiri	28%	20 Kakiri	37%	20 Kakiri	0%	20 Kakiri	26%	20 Kakiri	0%	20 Kakiri	100%	20 Kakiri	29%	20 Kakiri	0%
21 Pumpkin	38%	21 Pumpkin	29%	21 Pumpkin	28%	21 Pumpkin	53%	21 Pumpkin	10%	21 Pumpkin	52%	21 Pumpkin	19%	21 Pumpkin	100%	21 Pumpkin	42%	21 Pumpkin	39%
22 Wing bean	0%	22 Wing bean	10%	22 Wing bean	0%	22 Wing bean	26%	22 Wing bean	20%	22 Wing bean	44%	22 Wing bean	10%	22 Wing bean	100%	22 Wing bean	45%	22 Wing bean	11%
23 SweetPotato	15%	23 SweetPotato	19%	23 SweetPotato	0%	23 SweetPotato	74%	23 SweetPotato	0%	23 SweetPotato	44%	23 SweetPotato	0%	23 SweetPotato	0%	23 SweetPotato	13%	23 SweetPotato	50%
24 Manioc	31%	24 Manioc	29%	24 Manioc	0%	24 Manioc	47%	24 Manioc	27%	24 Manioc	56%	24 Manioc	0%	24 Manioc	0%	24 Manioc	63%	24 Manioc	50%
25 Luffa	15%	25 Luffa	0%	25 Luffa	0%	25 Luffa	37%	25 Luffa	43%	25 Luffa	89%	25 Luffa	5%	25 Luffa	0%	25 Luffa	53%	25 Luffa	67%
26 Snake gourd	38%	26 Snake gourd	10%	26 Snake gourd	0%	26 Snake gourd	11%	26 Snake gourd	0%	26 Snake gourd	30%	26 Snake gourd	0%	26 Snake gourd	0%	26 Snake gourd	11%	26 Snake gourd	0%
27 Bitter gourd	23%	27 Bitter gourd	10%	27 Bitter gourd	0%	27 Bitter gourd	11%	27 Bitter gourd	33%	27 Bitter gourd	63%	27 Bitter gourd	14%	27 Bitter gourd	100%	27 Bitter gourd	53%	27 Bitter gourd	50%
28 Cabbage	0%	28 Cabbage	14%	28 Cabbage	0%	28 Cabbage	26%	28 Cabbage	0%	28 Cabbage	37%	28 Cabbage	0%	28 Cabbage	0%	28 Cabbage	0%	28 Cabbage	0%
29 Beetroot	15%	29 Beetroot	29%	29 Beetroot	0%	29 Beetroot	21%	29 Beetroot	60%	29 Beetroot	59%	29 Beetroot	0%	29 Beetroot	0%	29 Beetroot	0%	29 Beetroot	11%
30 Radish	0%	30 Radish	29%	30 Radish	0%	30 Radish	47%	30 Radish	37%	30 Radish	67%	30 Radish	0%	30 Radish	100%	30 Radish	87%	30 Radish	39%
31 Khonol	0%	31 Khonol	0%	31 Khonol	0%	31 Khonol	0%	31 Khonol	60%	31 Khonol	4%	31 Khonol	0%	31 Khonol	0%	31 Khonol	3%	31 Khonol	11%
32 Leafy Vegetable	31%	32 Leafy Vegetable	48%	32 Leafy Vegetable	6%	32 Leafy Vegetable	63%	32 Leafy Vegetable	40%	32 Leafy Vegetable	11%	32 Leafy Vegetable	24%	32 Leafy Vegetable	0%	32 Leafy Vegetable	68%	32 Leafy Vegetable	33%

Table 15.8.1 Implementation of Agricultural Extension Programmes in 1999 in the Project Areas - 1/2

Scheme	Implementation Agency	Extension Staff Involved		Programs Implemented or Scheduled in 1999					
		Staff	No.	Program	No.	Program	No.		
Nachchaduwa (Area: 2,540 ha)	IPEU, DOA	AI	4	Paddy Field: 1999 Yala Season		Paddy Field: 1999/2000 Maha Season			
		ADPA	5	- Paddy tract demonstration	26	- Paddy tract demonstration	25		
		FA	8	- Paddy seed production program (1 acre)	26	- Paddy seed production program	15		
				- Self seed production program (2 kg/unit)	58	- Paddy yield maximization program (1 acre)	7		
				- Paddy yield maximization program (1 acre)	16	- Banana demonstration	1		
				- Millet demonstration program (0.5 acre)	5	- Weed control demonstration (1 acre)	1		
				- Weed control demonstration (1 acre)	11				
				- Maize demonstration farm (4 ha)	1	Highland/Home Garden: 1999/2000			
				- B. onion demonstration with storage facility	2	- Vegetable demonstration (agro-well; 1 acre)	1		
				- Vegetable demonstration (0.5 acre)	1	- Agro-well demonstration (annual cultivation)	2		
				- Varietal trial, paddy	2	- Maize demonstration	2		
				- Chili nursery program	1	- Maize seed production	2		
				- Sweet potato demonstration (new variety; 0.5 acre)	1	- Chili & fruit demonstration	20		
						- Women farmer program	6		
						- Integrated farming system program	1		
		Palukadawela (Area: 956 ha)	PDOA, NWP	AI	3	Paddy Field: 1999 Yala Season		Paddy Field: 1999/2000 Maha Season	
				FA	7	- Paddy seed production program (10 ha)	1	- Paddy tract demonstration	3
				- Maize demonstration (4 ha)	1	- Paddy yield maximization program (1 acre)	1		
				- B. onion demonstration (0.1 ha)	1	- Paddy seed production program (1 acre)	1		
				- Millet demonstration (2 ha)	3	- Paddy demonstration (2 ha)	1		
				- Groundnut demonstration (1-2 ha)	3	- Banana demonstration (2 ha)	1		
				*** no programs in Tract 4-6 due to water shortage					
				Highland/Home Garden: 1999/2000					
				- Perennial crops promotion program (seedling supply)					
				- Integrated farming system program (conservation + crop)					
		- Fruit seedling supply program							

Table 15.8.1 Implementation of Agricultural Extension Programmes in 1999 in the Project Areas - 2/2

Scheme	Implementation Agency	Extension Staff Involved		Programs Implemented or Scheduled in 1999			
		Staff	No.	Program	No.	Program	No.
Periyakulama (Area: 91 ha)	PDOA, NCP	AI	1	Paddy Field: 1999 Yala Season		Paddy Field: 1999/2000 Maha Season	
		ADPA	1	- IPM combined with yield increase program (14 ha)	1	- IPM combined with yield increase program (12 ha)	1
				Highland/Home Garden: 1999/2000		- Seed production program (4 ha)	1
				- Fruit seedling supply program	18	- Self seed production program (1 kg/unit)	24
Mahananneriya (Area: 158 ha)	PDOA, NWP	AI	1	Paddy Field: 1999 Yala Season		Paddy Field: 1999/2000 Maha Season	
		FA	1	- OFC seed production program (seed supply)	4	- Paddy tract demonstration	1
				Highland/Home Garden: 1999/2000		- Self seed production program (1 kg/unit)	20
				- Upland crops demonstration	2	- Weed control program (herbicide trial; 1 acre)	1
				- Fruit seedling supply program	13		
Cascade VII - Kallanchiya (Area: 8 ha)	PDOA, NWP	AI	1	Paddy Field: 1999 Yala Season		Paddy Field: 1999/2000 Maha Season	
		FA	1	- Paddy demonstration (1.5 acre)	1	- New variety introduction, paddy (seed supply; 0.1 ha)	1
				Highland/Home Garden: 1999/2000		- Fertilizer trial, paddy (1 acre)	1
				- Agro-well demonstration (0.25 acre)	1	- Weed control program (herbicide trial; 1 acre)	1
				- Maize tract demonstration (5 acre)	1		
- Attikulama (Area: 12 ha)	PDOA, NWP	AI	1	Paddy Field: 1999 Yala Season		Paddy Field: 1999/2000 Maha Season	
		FA	1	*** no programs due to water shortage		- IPM (entire command area; 12 ha)	1
- Ihalagama (Area: 22 ha)	PDOA, NWP	AI	1	Paddy Field: 1999 Yala Season		Highland/Home Garden: 1999/2000	
		FA	1	- Paddy tract demonstration	1	- Fruit demonstration & seedling supply	
				*** no programs 1999/2000 maha in paddy field			
- Tambarewewa (Area: 29 ha)	PDOA, NWP	AI	1	Paddy Field: no programs in 1999/2000 yala & maha		Highland/Home Garden: 1999/2000	
		FA	1			- Fruit demonstration & seedling supply	
- Palu-Mailawewa (Area: 20 ha)	PDOA, NWP	AI	1	Paddy Field: no programs in 1999/2000 yala & maha		Highland/Home Garden: 1999/2000	
		FA	1			- Fruit demonstration & seedling supply	
- Ihalananneriya (Area: 26 ha)	PDOA, NWP	AI	1	Paddy Field: 1999 Yala Season		Paddy Field: 1999/2000 Maha Season	
		FA	1	- Paddy tract demonstration	1	- Paddy tract demonstration	1
				Highland/Home Garden: 1999/2000			
				- Fruit demonstration & seedling supply			

Table 15.8.2 Deployment of Livestock Extension Staffs and Extension Programmes in the Project Areas

Project Related VS Office Location & Agencies	Service Areas / Related AS Center	Project Scheme in Service Area	Staffing / Office Facilities	Major Activities/Constraints of VS Office	Support Programs in Project Scheme (1999)			
Nuwaragam Palata East at Anuradhapura, PDAPH, NCP	DS Nachchaduwa	Nachchaduwa	VS		- Nachchaduwa Scheme Goat distribution program: 10 units Heifer cow distribution program: 1 unit Cattle shed program: 2 units Farmer training (under PRDP) AI, vaccination			
			LDI	1		- Health services: vaccination, treatment (animals & pets)		
	DS Nuwaragam Palata East (48 GN divisions)	ASC Nuwaragam Palata East	Treatment Room	1		- Breeding: AI, pre-diagnosis, castration		
			VS room	1		- Extension: farmer training & field visit		
			Office	1		- Support Programs in 1999		
			VS quarter	1		Goat distribution program: 20 units		
			Jeep	1		Heifer cow distribution program: 9 units		
			Motorcycle	1		Cattle shed program: 5 units (Rs.10,000/shed)		
				1		Farmer training (under PRDP)		
Major Constraints								
- Poor mobilization (transportation & fuel allowances)								
- Poorly staffed, pet treatment being forced								
- Farmers less interested animal in when busy								
Tirappane, PDAPH, NCP	DS Tirappane (42 GN divisions)	Periyakulama	VS	1	- Periyakulama Scheme Goat distribution program: 6 units (1997) Farmer training (1 day) AI, vaccination			
			LDI	3		- Health services: vaccination, treatment		
	ASC Tirappane (1 LDI) ASC Siwalakulama(part) ASC Muriyakadawala(part) ASC Indigahawewa(part)		Treatment Room	-		- Breeding: AI, pre-diagnosis, castration		
			VS room	1		- Extension: farmer training & field visit		
			Office	1		- Support Programs in 1999		
			VS quarter	-		Goat distribution program: 18 units		
			Jeep	1		Farm program: 18 units(animal/planting material supply)		
			Motorcycle	3				
			Major Constraints					
			- Poor mobilization (transportation & fuel allowances)					
- Office equipment & facilities, communication means								
- Low milk price								
Galgamuwa, PDAPH, NWP	DS Galgamuwa	Palukadawela	VS	1	- Palukadawela Scheme Heifer cow distribution program: 5 units - Mahananneriya Scheme Goat distribution program: 4 units - Attikulama Scheme Goat distribution program: 5 units Stud bull distribution program: 1 unit Layer supply program: 5 units (10 layers/unit) - Tambarewewa Scheme Stud bull distribution program: 1 unit - Ihalananneriya Scheme Goat distribution program: 6 units Layer supply program: 5 units (10 layers/unit)			
			LDI	5		- Health services: vaccination, treatment		
	DS Ehetuwewa (97 GN divisions)	ASC Galgamuwa (2 LDIs) ASC Mahananneriya (1 LDI) ASC Ehetuwewa (2 LDIs)	Cascade VII	Treatment Room		1	- Breeding: AI, pre-diagnosis, castration	
			- Kallanchiya	VS room		1	- Extension: farmer training & field visit	
			- Attikulama	Office		1	- Support Programs in 1998	
			- Ihalagama	VS quarter		1	Cattle distribution programs: 28 units	
			- Tambarewewa	Jeep (1 for 2 VSOs)		1	Farmer training: 58 classes	
			- Palu-Mailawewa	Motorcycle		3	Goat distribution program: 22 units	
			- Ihalananneriya				Swine development program: 174 units(issued)	
Major Constraints								
- Low interests of farmers; 3rd priority following paddy/OFC								
- Training programs not motivate farmers								
- Poor mobilization (transportation & fuel allowances)								

Table 15.8.3 Rural Credit Institutions Operated in the Project Areas and Their Coverage of Cultivation Loan and Pawning Schemes

Scheme	Related DS Division	Major Related Credit Institutions 1/	Cultivation Loan & Pawning Schemes	Major Cultivation Loan Coverage in 1999 for				Remarks
				1998/99 Maha Season Cropping		1999 Yala Season Cropping		
				No. of Beneficiaries	Total Credit Amount (Rs.000)	No. of Beneficiaries	Total Credit Amount (Rs.000)	
Nachchaduwa	Nachchaduwa	PB, Anuradhapura	NCRCS					
		BC, Anuradhapura	NCRCS					
		HNB, Anuradhapura	NCRCS					
		R. D. B., Anuradhapura City Branch	Cultivation Loan	23	361	38	546	Paddy & OFC
		C. R. B., Nachchaduwa Branch	Short Term Loan					
		C. R. B., Kuda Nelumbewa Branch	Short Term Loan Pawning	15	225 (coverage for Jan. to middle Dec. in 1999)			
				560	1,000 (coverage for Jan. to middle Dec. in 1999)			
		SANASA Bank, Nachchaduwa Branch Samurdi Bank, Nachchaduwa Branch Farmer Bank, ASC Swarstipura	Cultivation Loan		no cultivation loan scheme operated at present			
Palukadawela, Mahananneriya, Cascade VII	Galgamuwa	PB, Galgamuwa Branch	NCRCS	13	316	4	75	Paddy & OFC
		BC, Galgamuwa Branch	NCRCS	300	1,161 (coverage for Jan. to Nov. in 1999)			Paddy & OFC
			Pawning	610	3,135 (coverage for Jan. to Nov. in 1999)			
		HNB, Kurunegala	NCRCS					
		W. D. B., Galgamuwa Branch	SUPALA	189	4,093 (coverage for Jan. to Nov. in 1999)			Paddy & OFC
			Pawning	3,051	1,071 (coverage for Jan. to Nov. in 1999)			
		C. R. B., Galgamuwa Branch	Short Term Loan	22	150 (coverage of both seasons)			Only for paddy
		Farmer Bank, ASC Galgamuwa C. R. B., Mahananneriya Branch Samurdi Bank, Mahananneriya Branch Farmer Bank, ASC Mahananneriya	Cultivation Loan	30	100 (coverage for 1999/00 maha crop)			Only for paddy
Periyakulama	Tirappane	BC, Tirappane Branch	NCRCS	2	23	1	8	Only for paddy
		R. D. B., Tirappane Branch	Cultivation Loan	5	90	13	157	Paddy & OFC
			Pawning	1,780	4,196 (coverage in 1999)			
		C. R. B., ASC Tirappane Branch	Short Term Loan	200	1,000	0	0	Only for paddy

1/: PB: Peoples Bank; BC: Bank of Ceylon; HNB: Hatton National Bank; R.D.B.: Rajarata Development Bank; C.R.B.: Cooperative Rural Bank; W.D.B.: Wayamba Development Bank

Table 15.8.4 Major Agriculture Credit Schemes Operated in the Project Area

Type of Credit	Credit Scheme	Institutions Providing Credit	Bank Branches in/around Project Areas	Target Scheme 1/	Terms & Conditions of Credit	Credit Amount					
Short Term Cultivation Loan for Paddy & OFC	NCRCS	Peoples Bank (PB)	Anuradhapura Galgamuwa	Nach, Peri Palu, Maha, Cas	Eligibility: - Customer of Bank & - Agro-Identity Card holder & - Not a defaulter of credit/loan Security: - Inter-se guarantee of 2 other farmers - Other security acceptable to Bank Interest: - 12% (interest subsidy by CBSL 10%) Loan Period: - 240 days Crop Insurance: - For paddy required; for OFC not required	Paddy: Rs. 4,500/acre Chili : Rs. 5,000/acre					
		Bank of Ceylon (BC)	Anuradhapura Galgamuwa Tirappane	Nach Palu, Maha, Cas Peri							
		Hatton National Bank (HNB)	Anuradhapura Kurunegala	Nach, Peri Palu, Maha, Cas							
		SUPALA	Wayamba Development Bank (WDB)	Galgamuwa		Palu, Maha, Cas					
Agricultural Credit	Rajarata Development Bank (RDB)	Anuradhapura Tirappane	Nach Peri	Eligibility: - Customer of Bank & not a defaulter of credit - Any farmer including seasonal tenant Security: - Inter-se guarantee of 2 account holders with Bank Interest: - 12% (interest subsidy by CBSL 9%) Loan Period: - 240 days Crop Insurance: - Not required	Paddy: Rs. 12,000/acre Chili : Rs. 24,000/acre						
					Cooperative Rural Bank (CRB)	Nachchaduwa, Kuda Nelumbewa ASC Tirappane Maradankadawala Galgamuwa Mahananneriya	Nach Peri Peri Palu, Cas Maha, Cas	Eligibility: - Member of cooperatives & not a defaulter - Any farmer including seasonal tenant Security: - Inter-se guarantee of 2 cooperative members Interest: - 16 % Loan Period: - 6 months; Crop Insurance - Not required	Paddy: Rs. 10,000/farmer OFC: Rs. 10,000/farmer		
Cultivation Loan	Farmer Bank, ASC Galgamuwa	Galgamuwa	Galgamuwa	Palu, Maha, Cas	Interest 16.5 %/annu.; Loan period 6 months; Individual	Rs. 5,000/acre					
						Agri. Loan Project	PB	same as above	same as above	Interest 16 %/annu.; Loan period 3-5 years; Individual/Farmer Company	Depending on project
						Normal Term Loan	BC	same as above	same as above	Interest 16.5 %/annu.; Loan period max. 3 years; Individual	No limit set
						Development Scheme	HNB	same as above	same as above	Interest 17-19 %/annu.; Loan period max. 5 years; Individual	Max. Rs.5 million
						Agricultural Project	RDB	same as above	same as above	Interest 20 %/annu.; Loan period 3 - 5 years; Individual	75% of machinery price
						Agricultural Project	WDB	same as above	same as above	Interest 16 %/annu.; Loan period max. 5 years; Individual	No limit set
Credit for Procurement of Farm Machinery	SURATHURA	PB, BC, HNB, RDB	same as above	same as above	Interest 10 %/annu.; Loan period 3 years; Individual	Max. Rs.50,000/individual					
						Medium Term Credit	CRB	same as above	same as above	Interest 15-16 %/annu.; Loan period 3 - 5 years; Individual	Max. Rs.250,000/member
						Agri. Loan Project	PB	same as above	same as above	Interest 16 %/annu.; Loan period 2 years; Individual/Farmer Company	Max. Rs.35,000/individual
						Normal Term Loan	BC	same as above	same as above	Interest 13.5 %/annu.; Loan period 3 years; Individual	Max. Rs.50,000/individual
						Development Scheme	HNB	same as above	same as above	Interest 17-19 %/annu.; Loan period max. 5 years; Individual	No limit set
Credit for Livestock	Livestock Project	RDB	same as above	same as above	Interest 16 %/annu.; Loan period 3 years; Individual	Depending on program					
						WDB	same as above	same as above	Interest 16 %/annu.; Loan period 5 years; Individual	No limit set	
						Paddy/OFC Purchasing	PB	same as above	same as above	Interest 22-26 %/annu.; Period 6 months; Individual/Farmer Company	Depend. on store capacity
						Paddy/OFC Purchasing	BC	same as above	same as above	Interest 15 %/annu.; Period 6-9 months; Individual/Farmer Company	Depend. on store capacity
Credit for Marketing	Development Scheme	HNB	same as above	same as above	Interest 17-19 %/annu.; Loan period max. 1 year; Individual	Depend. on store capacity					
						Paddy/OFC Purchasing	RDB	same as above	same as above	Interest 15 %/annu.; Period 6-9 months; Individual	Depend. on store capacity
						Medium Term Loan	Micro Enterprise Scheme	HNB Medium term loan for micro enterprise development including procurement of machinery	same as above	same as above	Interest 17-20 %/annu.; Loan period 3 years; Individual/FO/farmer group
Pawning	Pawning Scheme	RDB, WDB & BC	same as above	same as above	Interest 24 %/annu.; Loan period 1 year; Individual						
						CRB	same as above except Tirappane	same as above	Interest 23.5 - 24.0 %/annu.; Loan period 1 year; Individual		

1/: Nach- Nachchaduwa; Peri - Periyakulama; Palu: Palukadawela; Maha - Mahananneriya; Cas - Cascade VII

Table 16.3.1 Preliminary Project Design Matrix (1/5)

Name of Project : Nachchaduwa Development Project for Irrigated Agriculture and the Community

Project Area : Nachchaduwa Major Irrigation Scheme

Duration : 7 years

Date : 18 January 2000

Executing Agency : Ministry of Irrigation and Power (MIP)

Target Group : Farmers, youth, and women in the Nachchaduwa Scheme

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal			
1.1 Achieving sustainable development of regional agriculture 1.2 Improving agricultural productivity of the rural community	1.1 Development activities are planned and implemented independently by FOs and farmers themselves. 1.2 Agriculture is economically feasible.	1.1 Monitoring reports of the project office (PMU) 1.2 Monitoring reports of PMU	Agricultural policy of the Government not hinder implementation of the project.
Project Purpose			
2.1 Increasing income among farmers	2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	Agricultural products do not have to face unreasonable competition from imported products.
Outputs			
3.1 FOs having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services are established and activated. 3.2 Irrigation water is properly supplied in accordance with a schedule. 3.2.1 Irrigation facilities are rehabilitated and improved. 3.2.2 Proper water management is done by FOs. 3.2.3 Irrigation facilities are maintained. 3.3 Agricultural activities are improved. 3.3.1 Crop cultivation is diversified. 3.3.2 Yields of paddy and OFC are increased. 3.3.3 Marketing of farm inputs and outputs is improved. 3.3.4 Access to credit services is improved.	3.1.1 FOs provide various services including income generation, etc. from the 3rd year after commencement of the project. 3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after commencement of the project. 3.2 Farmers are able to receive water in accordance with a schedule by the end of the project. 3.2.1 Facilities necessary for proper water supply are repaired and improved by the 5th year after commencement of the project. 3.2.2 Discharge is observed by FOs and DOI after completion of construction works. 3.2.3 All facilities below gates of D-canal are maintained by FOs after completion of construction works. 3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of construction works. 3.3.1 Extent of OFC occupies about 20% of paddy area in Yala by the end of the project. 3.3.2 Yields of crops reach the level of "projected yields" by the 3rd year after completion of construction works. 3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 4th year after commencement of the project. (2) Collecting point for OFC is established in the area by the 4th year after commencement of the project. 3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 4th year after commencement of the project.	3.1.1 Minutes of FOs' general meeting and monitoring reports of PMU 3.1.2 Minutes of FOs' committee and sub-committee meetings 3.2 Monitoring reports of PMU 3.2.1 Records of RPM's office 3.2.2 Records of DOI 3.2.3 Monitoring reports of PMU 3.3 Animators' field survey reports and records of ASC (AI) 3.3.1 Animators' field survey reports 3.3.2 Animators' field survey reports 3.3.3 (1) FOs' account books and financial reports in FOs' general meeting 3.3.3 (2) Animators' field survey reports 3.3.4 Reports of Banks, monitoring reports of PMU	There is no extreme natural disaster (drought, heavy rain, etc.). Government enforces existing rules and regulations to protect environment. Other sectors have no drastic and sudden change in the economic activities. Social conditions in the community have no drastic change. The project has no adverse effect from the other development projects, even if they overlapped.
Activities	Inputs		
4.1 Strengthening FOs. 4.1.1 Implement awareness and training programmes. 4.1.2 Reorganize FOs to have multi function. 4.1.3 Implement income generation through FOs. 4.2 Supplying irrigation water in accordance with schedule. 4.2.1 Rehabilitate and improve irrigation facilities. 4.2.2 Improve water management. 4.2.3 Strengthen O&M of irrigation facilities. 4.3 Improving agricultural activities. 4.3.1 Promote crop diversification. 4.3.2 Strengthen agricultural extension services. 4.3.3 Improve marketing of farm inputs and outputs. 4.3.4 Improve credit services.	Foreign Donor Mobilization, awareness and training costs Rehabilitation and improvement cost Equipment - Vehicles - O&M equipment - Equipment for agri. extension Facilities - Facilities for improvement of agri. extension - Farmer centers Capital funds for improvement of credit services Monitoring cost Cost for engineering services	Sri Lankan Side (1) Sri Lankan Government Manpower - Local engineers/experts - Administrative officers - Supporting staff Facilities of PMU Recurrent cost for project implementation (2) Farmers 10% of rehabilitation and improvement cost of D- and F-canals (3) NGO for implementing awareness and training programmes	Trained Officers stay with the project. Local government and front line officers positively support the project. No action will be taken by government to destabilize local market. Pre-conditions The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. MIP and agencies concerned establishes organization to implement project. To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned.

Table 16.3.1 Preliminary Project Design Matrix (2/5)

Name of Project : Palukadawela Development Project for Irrigated Agriculture and the Community
 Project Area : Palukadawela Major Irrigation Scheme Duration : 6 years
 Executing Agency : Ministry of Irrigation and Power (MIP) Target Group : Farmers, youth, and women in the Palukadawela Scheme

Date : 18 January 2000

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal			
1.1 Achieving sustainable development of regional agriculture 1.2 Improving agricultural productivity of the rural community	1.1 Development activities are planned and implemented independently by FOs and farmers themselves. 1.2 Agriculture is economically feasible.	1.1 Monitoring reports of the project office (PMU) 1.2 Monitoring reports of PMU	Agricultural policy of the Government not hinder implementation of the project.
Project Purpose			
2.1 Creating suitable economic level	2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	Agricultural products do not have to face unreasonable competition from imported products.
Outputs			
3.1 FOs having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services are established and activated. 3.2 Irrigation water is properly supplied in accordance with a schedule. 3.2.1 Irrigation facilities are rehabilitated and improved. 3.2.2 Proper water management is done by FOs. 3.2.3 Irrigation facilities are maintained. 3.3 Agricultural activities are improved. 3.3.1 Farm lands are used effectively. 3.3.2 Productivity of crop cultivation is improved. 3.3.3 Marketing of farm inputs and outputs is improved. 3.3.4 Access to credit services is improved.	3.1.1 FOs provide various services including income generation, etc. from the 3rd year after commencement of the project. 3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after commencement of the project. 3.2 Farmers are able to receive water in accordance with a schedule by the end of the project. 3.2.1 Facilities necessary for proper water supply are repaired and improved by the 4th year after commencement of the project. 3.2.2 Discharge is observed by FOs and DOI after completion of construction works. 3.2.3 All facilities below gates of D-canal are maintained by FOs after completion of construction works. 3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of construction works. 3.3.1 Utilization of fallow land is expanded progressively from the 3rd year after commencement of the project. 3.3.2 Yields of crops reach the level of "projected yields" by the 3rd year after completion of construction works. 3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 4th year after commencement of the project. 3.3.3 (2) Collecting point for OFC is established in the area by the 4th year after commencement of the project. 3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 4th year after commencement of the project.	3.1.1 Minutes of FOs' general meeting and monitoring reports of PMU 3.1.2 Minutes of FOs' committee and sub-committee meetings 3.2 Monitoring reports of PMU 3.2.1 Records of RPM's office 3.2.2 Records of DOI 3.2.3 Monitoring reports of PMU 3.3 Animators' field survey reports and records of ASC (AI) 3.3.1 Animators' field survey reports 3.3.2 Animators' field survey reports 3.3.3 (1) FOs' account books and financial reports in FOs' general meeting 3.3.3 (2) Animators' field survey reports 3.3.4 Reports of Banks, monitoring reports of PMU	There is no extreme natural disaster (drought, heavy rain, etc.). Government enforces existing rules and regulations to protect environment. Other sectors have no drastic and sudden change in the economic activities. Social conditions in the community have no drastic change. The project has no adverse effect from the other development projects, even if they overlapped.
Activities	Inputs		
4.1 Strengthening FOs. 4.1.1 Implement awareness and training programmes. 4.1.2 Reorganize FOs to have multi function. 4.1.3 Implement income generation through FOs. 4.2 Supplying irrigation water in accordance with schedule. 4.2.1 Rehabilitate and improve irrigation facilities. 4.2.2 Improve water management. 4.2.3 Strengthen O&M of irrigation facilities. 4.3 Improving agricultural activities. 4.3.1 Promote crop cultivation in unused lands. 4.3.2 Strengthen agricultural extension services. 4.3.3 Improve marketing of farm inputs and outputs. 4.3.4 Improve credit services for purchase of farm inputs and equipment.	<u>Foreign Donor</u> Mobilization, awareness and training costs Rehabilitation and improvement cost Equipment - Vehicles - O&M equipment - Equipment for agri. extension Facilities - Facilities for improvement of agri. extension (including provincial seed farm of Galugamwa) - Farmer centers Capital funds for improvement of credit services Monitoring cost Cost for engineering services	<u>Sri Lankan Side</u> (1) Sri Lankan Government Manpower - Local engineers/experts - Administrative officers - Supporting staff Facilities of PMU Recurrent cost for project implementation (2) Farmers 10% of rehabilitation and improvement cost of D- and F-canals (3) NGO for implementing awareness and training programmes	Trained Officers stay with the project. Local government and front line officers positively support the project. No action will be taken by government to destabilize local market. Pre-conditions The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. MIP and agencies concerned establishes organization to implement project. To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned.

Table 16.3.1 Preliminary Project Design Matrix (3/5)

Name of Project : Periyakulama Development Project for Irrigated Agriculture and the Community
 Project Area : Periyakulama Medium Irrigation Scheme Duration : 5 years Date : 18 January 2000
 Executing Agency : Ministry of Irrigation and Power (MIP) Target Group : Farmers, youth, and women in the Periyakulama Scheme

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal 1.1 Achieving sustainable development of regional agriculture 1.2 Improving agricultural productivity of the rural community	1.1 Development activities are planned and implemented independently by FO and farmers themselves. 1.2 Agriculture is economically feasible.	1.1 Monitoring reports of the project office (PMU) 1.2 Monitoring reports of PMU	Agricultural policy of the Government not hinder implementation of the project.
Project Purpose 2.1 Economic status of farmer community is brought up.	2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	Agricultural products do not have to face unreasonable competition from imported products.
Outputs 3.1 FO having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services is established and activated. 3.2 Irrigation water is properly supplied in accordance with a schedule. 3.2.1 Irrigation facilities are rehabilitated and improved. 3.2.2 Proper water management is done by FO. 3.2.3 Irrigation facilities are maintained. 3.3 Agricultural activities are improved. 3.3.1 OFC cultivation is expanded. 3.3.2 Agricultural extension services are strengthened. 3.3.3 Marketing of farm inputs and outputs is improved. 3.3.4 Access to credit services is improved. Activ 3.3.5 Deforestation in the catchment area is reduced.	3.1.1 FO provides various services including income generation, etc. from the 3rd year after commencement of the project. 3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after commencement of the project. 3.2 Farmers are able to receive water in accordance with a schedule by the end of the project. 3.2.1 Facilities necessary for proper water supply are repaired and improved by the 3rd year after the commencement of the project. 3.2.2 Discharge is observed by FO after completion of construction works. 3.2.3 All facilities are maintained by FO after completion of construction works. 3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of the construction works. 3.3.1 Extent of OFC occupies about 20% of paddy area in Yala by the end of the project. 3.3.2 Yields of crops reach the level of "projected yields" by the 3rd year after completion of construction works. 3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 3rd year after commencement of the project. 3.3.3 (2) Products are sold directly from farmers to markets from the 3rd year after commencement of the project. 3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 3rd year after commencement of the project. Input Tree crops are planted in the catchment area from the 3rd year after commencement of the project.	3.1.1 Minutes of FO's general meeting and monitoring reports of PMU 3.1.2 Minutes of FO's committee and sub-committee meetings 3.2 Monitoring reports of project office 3.2.1 Monitoring reports of PMU 3.2.2 Records of FO 3.2.3 Monitoring reports of PMU 3.3 Animator's field survey reports and records of ASC (AI) 3.3.1 Animator's field survey reports 3.3.2 Animator's field survey reports 3.3.3 (1) FO's account books and financial reports in FO's general meeting 3.3.3 (2) Monitoring reports of PMU 3.3.4 Reports of Banks, monitoring reports of PMU 3.3.5 Animator's field survey reports	There is no extreme natural disaster (drought, heavy rain, etc.). Government enforces existing rules and regulations to protect environment. Other sectors have no drastic and sudden change in the economic activities. Social conditions in the community have no drastic change. The project has no adverse effect from the other development projects, even if they overlapped.
Activities 4.1 Strengthening FO. 4.1.1 Implement awareness and training programmes. 4.1.2 Reorganize FOs to have multi function. 4.1.3 Implement income generation through FO. 4.2 Supplying irrigation water in accordance with schedule. 4.2.1 Rehabilitate and improve irrigation facilities. 4.2.2 Improve water management. 4.2.3 Strengthen O&M of irrigation facilities. 4.3 Improving agricultural activities. 4.3.1 Promote OFC cultivation. 4.3.2 Strengthen agricultural extension services. 4.3.3 Improve marketing of farm inputs and outputs. 4.3.4 Improve credit services 4.3.5 Promote reforestation in the catchment area.	Inputs Foreign Donor Mobilization, awareness and training costs Rehabilitation and improvement cost Equipment - Vehicles - O&M equipment - Equipment for agri. extension Facilities - Facilities for improvement of agri. extension - Farmer center Capital funds for improvement of credit services Monitoring cost Cost for engineering services	Sri Lankan Side (1) Sri Lankan Government Manpower - Local engineers/experts - Administrative officers - Supporting staff Facilities of PMU Recurrent cost for project implementation (2) Farmers 10% of rehabilitation and improvement cost of all irrigation facilities (3) NGO for implementing awareness and training programmes	Trained Officers stay with the project. Local government and front line officers positively support the project. No action will be taken by government to destabilize local market. Pre-conditions The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. MIP and agencies concerned establishes organization to implement project. To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned.

Table 16.3.1 Preliminary Project Design Matrix (4/5)

Name of Project : Mahananneriya Medium Scheme Development Project for Irrigated Agriculture and the Community
 Project Area : Mahananneriya Medium Irrigation Scheme Duration : 5 years Date : 18 January 2000
 Executing Agency : Ministry of Irrigation and Power (MIP) Target Group : Farmers, youth, and women in the Mahananneriya Medium Scheme

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal 1.1 Achieving sustainable development of regional agriculture 1.2 Improving agricultural productivity of the rural community	1.1 Development activities are planned and implemented independently by FO and farmers themselves. 1.2 Agriculture is economically feasible.	1.1 Monitoring reports of the project office (PMU) 1.2 Monitoring reports of PMU	Agricultural policy of the Government not hinder implementation of the project.
Project Purpose 2.1 Socio-economic status is improved.	2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	Agricultural products do not have to face unreasonable competition from imported products.
Outputs 3.1 FO having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services is established and activated. 3.2 Irrigation water is properly supplied in accordance with a schedule. 3.2.1 Irrigation facilities are rehabilitated and improved. 3.2.2 Proper water management is done by FO. 3.2.3 Irrigation facilities are maintained. 3.3 Agricultural activities are improved. 3.3.1 OFC cultivation is expanded. 3.3.2 Productivity of paddy is improved. 3.3.3 Marketing of farm inputs and outputs is improved. 3.3.4 Access to credit services is improved. Activ 3.3.5 Deforestation in the catchment area is reduced.	3.1.1 FO provides various services including income generation, etc. from the 3rd year after commencement of the project. 3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after the commencement. 3.2 Farmers are able to receive water in accordance with a schedule by the end of the project. 3.2.1 Facilities necessary for proper water supply are repaired and improved by the 3rd year after commencement of the project. 3.2.2 Farmers are able to receive water in accordance with a schedule after completion of construction works. 3.2.3 All facilities are maintained by FO after completion of construction works. 3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of construction works. 3.3.1 Extent of OFC occupies about 10% of paddy area in Yala by the end of the project. 3.3.2 Yield of paddy reaches the level of "projected yields" by the 3rd year after completion of construction works. 3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 3rd year after commencement of the project. 3.3.3 (2) Quality control of OFC products are introduced from 3rd year after commencement of the project. 3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 3rd year after commencement of the project. Input Tree crops are planted in the catchment area from the 3rd year after commencement of the project.	3.1.1 Minutes of FO's general meeting and monitoring reports of PMU 3.1.2 Minutes of FO's committee and sub-committee meetings 3.2 Monitoring reports of project office 3.2.1 Monitoring reports of PMU 3.2.2 Monitoring reports of PMU 3.2.3 Monitoring reports of PMU and minutes of FO's general meeting 3.3 Animator's field survey reports and records of ASC (AI) 3.3.1 Animator's field survey reports 3.3.2 Animator's field survey reports 3.3.3 (1) FO's account books and financial reports in FO's general meeting 3.3.3 (2) Monitoring reports of PMU 3.3.4 Reports of Banks, monitoring reports of PMU 3.3.5 Animator's field survey reports	There is no extreme natural disaster (drought, heavy rain, etc.). Government enforces existing rules and regulations to protect environment. Other sectors have no drastic and sudden change in the economic activities. Social conditions in the community have no drastic change. The project has no adverse effect from the other development projects, even if they overlapped.
Activities 4.1 Strengthening FO. 4.1.1 Implement awareness and training programmes. 4.1.2 Reorganize FOs to have multi function. 4.1.3 Implement income generation through FO. 4.2 Supplying irrigation water in accordance with schedule. 4.2.1 Rehabilitate and improve irrigation facilities. 4.2.2 Improve water management. 4.2.3 Strengthen O&M of irrigation facilities. 4.3 Improving agricultural activities. 4.3.1 Promote OFC cultivation. 4.3.2 Strengthen agricultural extension services. 4.3.3 Improve marketing of farm inputs and outputs. 4.3.4 Improve credit services 4.3.5 Promote reforestation in the catchment area.	Inputs Foreign Donor Mobilization, awareness and training costs Rehabilitation and improvement cost Equipment - Vehicles - O&M equipment - Equipment for agri. extension Facilities - Facilities for improvement of agri. extension (including provincial seed farm of Galugamwa) - Farmer center Capital funds for improvement of credit services Monitoring cost Cost for engineering services	Sri Lankan Side (1) Sri Lankan Government Manpower - Local engineers/experts - Administrative officers - Supporting staff Facilities of PMU Recurrent cost for project implementation (2) Farmers 10% of rehabilitation and improvement cost of all irrigation facilities (3) NGO for implementing awareness and training programmes	Trained Officers stay with the project. Local government and front line officers positively support the project. No action will be taken by government to destabilize local market. Pre-conditions The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. MIP and agencies concerned establishes organization to implement project. To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned.

Table 16.3.1 Preliminary Project Design Matrix (5/5)

Name of Project : Mahananneriya Minor Schemes Development Project for Irrigated Agriculture and the Community
 Project Area : Mahananneriya Minor Irrigation Schemes (Cascade) Duration : 5 years Date : 18 January 2000
 (Kallanchiya, Arthikulama, Mailewa, Ihalagama, Thambare, and Ihala Nanneriya)
 Executing Agency : Ministry of Irrigation and Power (MIP) / Provincial Engineering Department Target Group : Farmers, youth, and women in the Mahananneriya Minor Schemes (Cascade)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal 1.1 Achieving sustainable development of regional agriculture 1.2 Improving agricultural productivity of the rural community	1.1 Development activities are planned and implemented independently by FOs and farmers themselves. 1.2 Agriculture is economically feasible.	1.1 Monitoring reports of the project office (PMU) 1.2 Monitoring reports of PMU	Agricultural policy of the Government not hinder implementation of the project.
Project Purpose 2.1 Socio-economic status is improved.	2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	Agricultural products do not have to face unreasonable competition from imported products.
Outputs 3.1 FOs having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services are established and activated. 3.2 Irrigation water is properly supplied in accordance with a schedule. 3.2.1 Irrigation facilities are rehabilitated and improved. 3.2.2 Proper water management is done by FOs. 3.2.3 Irrigation facilities are maintained. 3.3 Agricultural activities are improved. 3.3.1 OFC cultivation is expanded. 3.3.2 Yield of paddy and OFC are increased. 3.3.3 Marketing of farm inputs and outputs is improved. 3.3.4 Access to credit services is improved. 3.3.5 Deforestation in the catchment area is reduced.	3.1.1 FOs provide various services including income generation, etc. from the 3rd year after commencement of the project. 3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after commencement of the project. 3.2 Farmers are able to receive water in accordance with a schedule by the end of the project. 3.2.1 Facilities necessary for proper water supply are repaired and improved by the 3rd year after commencement of the project. 3.2.2 Over 80% of farmers attend Kanna meeting from 4th year after commencement of the project. 3.2.3 Over 80% of farmers participate "Shramadana" from 4th year after commencement of the project. 3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of construction works. 3.3.1 Extent of OFC occupies about 10% of paddy area in Yala by the end of the project. 3.3.2 Yields of crops reach the level of "projected yields" by the 3rd year after completion of construction works. 3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 3rd year after commencement of the project. 3.3.3 (2) Collecting point for OFC is established in the area by the 3rd year after commencement of the project. 3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 3rd year after commencement of the project. 3.3.5 Tree crops are planted in the catchment area from the 3rd year after commencement of the project.	3.1.1 Minutes of FOs' general meeting and monitoring reports of PMU 3.1.2 Minutes of FOs' committee and sub-committee meetings 3.2 Monitoring reports of PMU 3.2.1 Monitoring reports of PMU 3.2.2 Minutes of Kanna meeting 3.2.3 Records of FOs. 3.3 Animators' field survey reports and records of ASC (AI) 3.3.1 Animators' field survey reports 3.3.2 Animators' field survey reports 3.3.3 (1) FOs' account books and financial reports in FOs' general meeting 3.3.3 (2) Animator's field survey reports 3.3.4 Reports of Banks, monitoring reports of PMU 3.3.5 Animator's field survey reports	There is no extreme natural disaster (drought, heavy rain, etc.). Government enforces existing rules and regulations to protect environment. Other sectors have no drastic and sudden change in the economic activities. Social conditions in the community have no drastic change. The project has no adverse effect from the other development projects, even if they overlapped.
Activities 4.1 Strengthening FOs. 4.1.1 Implement awareness and training programmes. 4.1.2 Reorganize FOs to have multi function. 4.1.3 Implement income generation through FOs. 4.2 Supplying irrigation water in accordance with schedule. 4.2.1 Rehabilitate and improve irrigation facilities. 4.2.2 Improve water management. 4.2.3 Strengthen O&M of irrigation facilities. 4.3 Improving agricultural activities. 4.3.1 Promote OFC cultivation. 4.3.2 Strengthen agricultural extension services. 4.3.3 Improve marketing of farm inputs and outputs. 4.3.4 Improve credit services 4.3.5 Promote reforestation in the catchment area.	Inputs <u>Foreign Donor</u> Mobilization, awareness and training costs Rehabilitation and improvement cost Equipment - Vehicles - O&M equipment - Equipment for agri. extension Facilities - Facilities for improvement of agri. extension (including provincial seed farm of Galugamwa) - Farmer centers Capital funds for improvement of credit services Monitoring cost Cost for engineering services	<u>Sri Lankan Side</u> (1) Sri Lankan Government Manpower - Local engineers/experts - Administrative officers - Supporting staff Facilities of PMU Recurrent cost for project implementation (2) Farmers 10% of rehabilitation and improvement cost of all irrigation facilities (3) NGO for implementing awareness and training programmes	Trained Officers stay with the project. Local government and front line officers positively support the project. No action will be taken by government to destabilize local market. Pre-conditions The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. MIP and agencies concerned establishes organization to implement project. To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned.

Table 19.2.1 Costs for Rehabilitation and Improvement of Irrigation Facilities and Farm Roads

Major and Medium Schemes (Unit : Rs. 1000)

	Major Schemes		Medium Schemes	
	Nachchaduwa	Palukadawela	Periyakulama	Mahananneriy
Tank	10,750	2,118	6,362	2,180
Feeder Canal	16,200	825	0	-
Main canals	72,038	9,416	3,856	3,503
D-canals	91,867	5,173	997	-
F-canals	81,808	17,627	2,195	0
Anicuts	-	5,350	0	3,600
Roads	-	-	-	1,264
Sub-total	272,663	40,509	13,410	10,547
Overhead & Profit	70,892	10,532	2,816	2,215
Sub-total	343,555	51,041	16,226	12,762
Physical Contingency	51,533	7,656	1,623	1,276
Total	395,088	58,697	17,849	14,038

Minor Schemes (Unit : Rs. 1000)

	Minor Schemes						Total
	Kallanchiya	Arthikulama	Palumailewa	Ihalagama	Tambare	Ihalananneriya	
Tank	668	719	1,161		1,480	1,492	5,520
Canal system	989	227	495		293	243	2,247
Feeder Canal	96	0	0		0	0	96
Roads	0	0	946		0	0	946
Sub-total	1,753	946	2,602	2,890	1,773	1,735	11,699
Overhead & Profit	454	294	499	680	502	324	2,753
Sub-total	2,207	1,240	3,101	3,570	2,275	2,059	14,452
Physical Contingency	110	62	155	179	114	103	723
Total	2,317	1,302	3,256	3,749	2,389	2,162	15,175

Table 19.2.2 Costs for Rehabilitation and Improvement of Supporting Facilities and Provision of Equipment (Priority Irrigation Schemes)

Items	Quantity	Unit	Price (Rs.1,000)	Amount (Rs.1,000)	Remarks
1. Mobilization of PMU				29,200	
1) Vehicles and Equipment					
- Vehicles *1	19	No.	1,200	22,800	
- Motor Cycles *2	4	No.	100	400	
2) Office Equipment					
- Computer set	10	No.	200	2,000	
- Copy machine	5	L.S.	300	1,500	
- Other equipment	1	L.S.		1,000	
3) Others		L.S.		1,500	
2. Construction of Farmer Centre	27	No.	1,320	35,640	Floor space 140 m2/no.
3. Strengthening of Agricultural Support Services				39,710	
1) Institutional Strengthening Program for Agricultural Extension					
- Logistic Support Strengthening Program					
Provision of Motor Cycles	3	No.	100	300	IPEU, PODA/NCP & PODA/NWP
Provision of Computer Set	2	Set	200	400	IPEU & PODA/NWP
- Upgrading of ISTI, Maha Illuppallama					
Audio visual equipment	1	Set	900	900	Video camera (VHS) x 1, Video deck (VCR) x 2, TV x 1, Overhead projector & screen x 2, Printing machine x 1, Copy machine x 1
Bus	1	No.	9000	9,000	
2) Strengthening of Farmers/FOs Support Facilities					
- ASC Strengthening Program					
Provision of Motor Cycles for ASC	3	No.	100	300	ASC Nachchaduwa (Anuradhapura), ASC Galugamuwa (Kurunegala), ASC Mahananneriya (Kurunegala)
Renovation of Building, Office/Training Equipment	4	L.S.	600	2,400	ASC Nachchaduwa (Anuradhapura), ASC Tirappane (Anuradhapura), ASC Galugamuwa (Kurunegala), ASC Mahananneriya (Kurunegala)
- Strengthening of DAS					
Provision of Vehicle/DAS Office	2	No.	1200	2,400	DAS offices of Anuradhapura & Kurunegala
3) Support Programs for Income Generation					
- Upgrading of Seed Farm, Galgamuwa					
Potting Shed	2	No.	6.2/m2	2,480	200 m2
Shade House	2	No.	5.0/m2	4,000	400 m2
Office Quarter	1	No.	12.2/m2	1,220	100 m2
Irrigation facilities				140	Water pump & pumping station, water storage tank, irrigation system (1 ha)
Garage	1	No.	4.1/m2	210	50 m2
Training Equipment	1	Set	600	600	
Office Facilities	1	Set	500	500	
Vehicle (4 t truck)	1	No.	2,000	2,000	
- Upgrading of IFTC, Nikaweratiya					
Training building	1	No.	12.2/m2	1,460	120m2
Hostel	1	No.	13.5/m2	2,700	5 rooms x 40m2/room
Manager quarter	1	No.	13.5/m2	1,350	100 m2
Dairy shed	1	No.	300	300	To house 20 cows
Minisize dairy laboratory	1	No.	500	500	
Vehicle	1	No.	2,900	2,900	Micro-bus: 25 seats
- Strengthening of PDAPHs' Extension Activities					
Provision of Motor Cycles	2	No.	100	200	Anuradhapura and Kurunegara Offices
- Strengthening of Aqua-culture Extension Center					
1. Extension center building	1	No.	12.2/m2	2,400	200 m2
2. Training equipment	1	No.	270	270	
3. Facilitates of extension center	1	Set	380	380	Tables, chairs, board, cabinet, etc.
4. Provision of Motor Cycles for Aquaculture Extension Officers	2		100	200	
4) Strengthening of RPM Offices					
- Provision of Motor Cycles	2		100	200	
4. Physical Contingency (5%)				5,230	
Total				109,780	

*1 Number of Vehicles in PMU Office

Project Director	1	Agri. Supporting	1
Deputy Project Director	1	Income Generation	2
Construction (1)	4	M&E	2
O&M	1	Administration (2)	3
Farmer Supporting/Credit	2	IMD Head Office	2
Total			19

(1) 2 nos. for PEDs in NWP and NCP

(2) 2 nos. for mobilising resources persons and training equipment for institutional development.

*2 Technical officers of PED in NWP & NCP

Table 19.2.3 Costs for Awareness and Training Programmes

Items	Quantity	Unit	Price (Rs.1,000)	Amount (Rs.1,000)	Remarks
1. Strengthening of Farmers' Organizations (FOs)					
1) Awareness Programme				16,000	(rounded)
- Employment of expert for participatory approach	125	M/D	10	1,250	NHDA/KARTI/NGO
- Facilitator	248	M/D	5	1,240	NHDA/KARTI/NGO
- Assistant to the facilitator	196	M/D	3	588	DAS/IMD/KARTI
- Instructor/Expert (Gender, PCM/LFA, Community Dev.)	76	M/D	5	380	NHDA/KARTI/NGO
- Instructor - ASC DO	60	M/D	0.5	30	DAS
- Other Resource Persons	32	M/D	3	96	NGO, Volunteer
- Other Resource Persons assisting in CAP	588	M/D	2	1,176	NGO, Volunteer
- Printing & binding the Syllabus, Guidelines, Manual,etc.	18,000	#	0.15-0.5	3,000	
- Printing & binding of Action Planning Report	28	FOs	3	84	
- Teaching Materials (Text, Report, Video tape etc.)	9,877	#		1,410	
- Hand-out on Participatory Development	310	#	0.05	16	
- Stationery	1,015	Persons	0.5 - 1.0	580	
- Stationery	224	FOs	0.5-2.0	150	
- Rental fees for lecture rooms & Equipment	212	Days	6.5-15.0	330	
- Accommodation for Instructors and Residential Training	532	Persons	2.5-5.0	1,450	
- Meals (Lunch & tea x 2)	1,060	Persons	0.35-0.5	420	
- Miscellaneous	5,252	Persons/FOs	0.5-2.0	1,800	
- Vehicles	26.7	Month	75	2,003	Rental base
2) Training of FOs' Leaders				2,880	(rounded)
- Facilitator	112	M/D	5	560	(2day x 2 x 28 FOs)
- Assistant for the facilitator	112	M/D	3	336	DAS/IMD/KARTI
- Accommodation for Facilitator and other	224	Persons	2.5	560	
- Instructor	140	M/D	3	420	DAS/IMD/KARTI
- Instructor	84	M/D	3	252	KARTI
- Vehicles	10	Month	75	750	Rental base
2. Supplying irrigation water in accordance with schedule.					
1) Training for construction and supervision				870	
2) Training for water management				700	
3) Training for operation and management of irrigation facilities				700	
3. Improving agricultural activities.					
1) Strengthen agricultural extension services					
- Field programs				11,430	(rounded)
Adaptive Trials, Paddy, OFC & Vegetables	28	Unit	30	840	
Demonstration Plots, Paddy	57	Unit	16	912	
Demonstration Plots, OFC & Vegetables	71	Unit	10	710	
Cropping Pattern Demonstration	18	Unit	64	1,152	
Demonstration Block, Paddy	23	Unit	130	2,990	
Demonstration Farm, Paddy	11	Unit	40	440	
Demonstration Farm, OFC	17	Unit	30	510	
Paddy Productivity Increase Program	39	Unit	20	780	
IPM, Paddy & OFC	31	Unit	100	3,100	
- Farmer training programmes				1,650	(rounded)
Induction Farmer Training	7	Unit	28	196	
Induction Farmer Guidance	38	Unit	8	304	
Farmer Training	21	Unit	30	630	
Workshop/Mass Guidance	33	Unit	5	165	
Seed Campaign	19	Unit	10	190	
Study Tour	13	Unit	13	169	
- Seed production programme				1,300	(rounded)
Paddy Seed Production Program	140	ha	7	980	
OFC Seed Production Program	45	ha	7	315	
4. Strengthening Agricultural Support Programs					
1) Institutional Strengthening Program for Agricultural Extension					
- Staff Training Program				460	(rounded)
Induction Staff Training	1	Unit	42	42	IPEU, PDOA (NCP & NWP)
Refresher/In-service Training	10	Unit	42	420	IPEU, PDOA (NCP & NWP)
- Institutional Strengthening				7,600	(rounded)
Strengthening of Guidance/Supervision/Coordination		L.S.		5,000	IPEU, PDOA (NCP & NWP)
Strengthening of Research-Extension-Farmer Linkage		L.S.		2,600	IPEU, PDOA (NCP & NWP)
2) Strengthening of Farmers/FOs Support Institutions					
- Induction & Refresher Training of DO/ASC	11	Unit	42	460	(rounded)
- Induction & Refresher Training of Farmer Animators	11	Unit	42	460	(rounded)
5. Follow-up programme				1,950	10% of 1.-2), 2. & 3.
6. Physical Contingency (5%)				2,320	
Total				48,780	

Table 19.2.4 Costs for Administration of PMU and Capital of Loan

Items	Quantity	Unit	Price (Rs.1,000)	Amount (Rs.1,000)	Remarks
1. Administration Cost of PMU				56,280	
1) Personnel Cost - Officers	2,100	M/M	10	21,000	25 officers x 12 months x 7 years
- Supporting staff	2,520	M/M	6	15,120	30 staff x 12 months x 7 years
2) Monitoring and survey		L.S.		1,400	Rs.200,000 x 7 years
3) Consumables and others		L.S.		18,760	50% of 1) and 2)
2. Capital of Loan	40	Unit	500	20,000	
3. Physical Contingency (5%)				3,810	
Total				80,090	

Table 19.2.5 Annual Disbursement Schedule of Project Costs

(Unit: Rs.1,000)

Items	Total	2002	2003	2004	2005	2006	2007	2008
I. Rehabilitation and Improvement of Irrigation Facilities and Farm Road (including physical contingency)								
1. Nachchaduwa Major Scheme	395,090	-	-	142,230	161,990	90,870	-	-
2. Palukadawela Major Scheme	58,700	-	-	35,220	23,480	-	-	-
3. Periyakulama Medium Scheme	17,850	-	-	17,850	-	-	-	-
4. Mahananneriya Medium Scheme	14,040	-	-	14,040	-	-	-	-
5. Mahananneriya Minor Schemes (Cascade)	15,170	-	-	15,170	-	-	-	-
Sub-total	500,850	-	-	224,510	185,470	90,870	-	-
II. Rehabilitation and Improvement of Supporting Facilities and Provision of Equipment								
1. Mobilization of PMU	29,200	29,200	-	-	-	-	-	-
2. Construction of Farmer Centre	35,640	-	-	26,400	9,240	-	-	-
3. Strengthening of Agricultural Support Services	39,710	10,100	29,610	-	-	-	-	-
1) Institutional Strengthening Program for Agricultural Extension								
- Logistic Support Strengthening Program	700	-	700	-	-	-	-	-
- Upgrading of ISTI, Maha Illuppallama	9,900	9,900	-	-	-	-	-	-
2) Strengthening of Farmers/FOs Support Facilities								
- ASC Strengthening Program	5,100	-	5,100	-	-	-	-	-
3) Support Programs for Income Generation								
- Upgrading of Seed Farm, Galgamuwa	11,150	-	11,150	-	-	-	-	-
- Upgrading of IFTC, Nikaweratiya	9,210	-	9,210	-	-	-	-	-
- Strengthening of PDAPHs' Extension Activities	200	-	200	-	-	-	-	-
- Strengthening of Aqua-culture Extension Center	3,250	-	3,250	-	-	-	-	-
4) Strengthening of RPM Offices								
- Provision of Motor Cycles	200	200	-	-	-	-	-	-
4. Physical Contingency (5%)	5,230	1,970	1,480	1,320	460	-	-	-
Sub-total	109,780	41,270	31,090	27,720	9,700	-	-	-
III. Awareness and Training Programmes								
1. Strengthening of Farmers' Organizations (FOs)								
1) Awareness Programme	16,000	11,210	4,790	-	-	-	-	-
2) Training of FOs' Leaders	2,880	-	1,000	1,340	540	-	-	-
2. Training for construction, water management and O&M	2,270	360	560	150	280	340	420	160
3. Improving agricultural activities.								
1) Strengthen agricultural extension services								
- Field programs	11,430	-	1,300	3,160	3,030	2,680	1,260	-
- Farmer training programmes	1,650	-	560	430	350	190	120	-
- Seed production programme	1,300	-	-	210	350	490	250	-
4. Strengthening Agricultural Support Programs								
1) Institutional Strengthening Program for Agricultural Extension	8,060	540	1,580	1,890	1,780	1,690	580	-
2) Strengthening of Farmers/FOs Support Institutions	920	80	170	170	170	170	160	-
5. Follow-up Programme (10% of 1.-2), 2. & 3.)	1,950	-	-	-	-	360	490	1,100
6. Physical Contingency (5%)	2,320	610	500	370	320	300	160	60
Sub-total	48,780	12,800	10,460	7,720	6,820	6,220	3,440	1,320
IV. Administration Cost of PMU and Capital of Loan								
1. Administration Cost of PMU	56,280	8,040	8,040	8,040	8,040	8,040	8,040	8,040
2. Capital of Loan	20,000	-	-	6,000	5,500	5,500	3,000	-
3. Physical Contingency (5%)	3,810	400	400	700	680	680	550	400
Sub-total	80,090	8,440	8,440	14,740	14,220	14,220	11,590	8,440
V. Engineering Services (10% of I to III)								
Total	65,940	13,188	13,188	13,188	6,594	6,594	6,594	6,594
VI. Price Contingency								
Grand Total	436,624	15,897	20,912	133,604	136,024	90,970	20,515	18,702
VII. GST (12.5%)								
Grand Total with Tax	1,242,064	91,595	84,090	421,482	358,828	208,874	42,139	35,056
VIII. GST (12.5%)								
Grand Total with Tax	1,397,321	103,044	94,601	474,167	403,682	234,983	47,406	39,438

Table 20.3.1 Cash Flow Statement - Development Plan of Priority Irrigation Schemes

(Unit: Rs.Million)

Year in Order	Year	Cash Outflow							Cash Inflow				Balance	
		Initial Investment Cost by the Government*1			Loan Repayment *2		O&M Cost *3	Replace- ment Cost*1	Total	Loan from Foreign Aid	Repayment of Revolv- ing Loan *4	Govern- ment Budget *5		Total
		Total Investment Cost	Investment by Farmers	Investment by Government	Capital	Interest								
1	2002	103.0	-	103.0	-	-	-	-	103.0	81.4	-	21.6	103.0	-
2	2003	94.6	-	94.6	-	1.9	-	-	96.5	72.9	-	23.6	96.5	-
3	2004	474.2	-22.6	451.6	-	3.5	-	-	455.1	389.0	-	66.1	455.1	-
4	2005	403.7	-20.5	383.2	-	12.5	-	-	395.7	327.1	-	68.6	395.7	-
5	2006	235.0	-10.9	224.1	-	20.0	1.0	-	245.1	184.2	-	60.9	245.1	-
6	2007	47.4	-	47.4	-	24.3	3.5	-	75.2	25.7	-	49.5	75.2	-
7	2008	39.4	-	39.4	-	24.8	3.5	-	67.7	16.9	-	50.8	67.7	-
8	2009	-	-	-	-	25.2	3.5	-	28.7	-	14.1	14.6	28.7	-
9	2010	-	-	-	-	25.2	3.5	-	28.7	-	14.3	14.4	28.7	-
10	2011	-	-	-	-	25.2	3.5	-	28.7	-	15.7	13.0	28.7	-
11	2012	-	-	-	54.9	25.2	3.5	-	83.6	-	9.4	74.2	83.6	-
12	2013	-	-	-	54.9	24.0	3.5	-	82.4	-	-	82.4	82.4	-
13	2014	-	-	-	54.9	22.7	3.5	-	81.1	-	-	81.1	81.1	-
14	2015	-	-	-	54.9	21.4	3.5	-	79.8	-	-	79.8	79.8	-
15	2016	-	-	-	54.9	20.2	3.5	91.0	169.6	-	-	169.6	169.6	-
16	2017	-	-	-	54.9	18.9	3.5	-	77.3	-	-	77.3	77.3	-
17	2018	-	-	-	54.9	17.7	3.5	-	76.1	-	-	76.1	76.1	-
18	2019	-	-	-	54.9	16.4	3.5	-	74.8	-	-	74.8	74.8	-
19	2020	-	-	-	54.9	15.1	3.5	-	73.5	-	-	73.5	73.5	-
20	2021	-	-	-	54.9	13.9	3.5	-	72.3	-	-	72.3	72.3	-
21	2022	-	-	-	54.9	12.6	3.5	-	71.0	-	-	71.0	71.0	-
22	2023	-	-	-	54.9	11.3	3.5	-	69.7	-	-	69.7	69.7	-
23	2024	-	-	-	54.9	10.1	3.5	-	68.5	-	-	68.5	68.5	-
24	2025	-	-	-	54.9	8.8	3.5	-	67.2	-	-	67.2	67.2	-
25	2026	-	-	-	54.9	7.6	3.5	91.0	157.0	-	-	157.0	157.0	-
26	2027	-	-	-	54.9	6.3	3.5	-	64.7	-	-	64.7	64.7	-
27	2028	-	-	-	54.9	5.0	3.5	-	63.4	-	-	63.4	63.4	-
28	2029	-	-	-	54.9	3.8	3.5	-	62.2	-	-	62.2	62.2	-
29	2030	-	-	-	54.9	2.5	3.5	-	60.9	-	-	60.9	60.9	-
30	2031	-	-	-	54.9	1.2	3.5	99.0	158.6	-	-	158.6	158.6	-
31	2032	-	-	-	-	-	3.5	-	3.5	-	-	3.5	3.5	-
32	2033	-	-	-	-	-	3.5	-	3.5	-	-	3.5	3.5	-

*1 Including price contingency and GST

*2 Interest rate: 2.3%/year Grace period: 10 years Repayment period: 30 years including grace period

*3 O&M costs for tanks and main canals of major irrigation schemes. (2,540 ha + 956 ha) x Rs.1,000/ha

*4 Repayment of revolving loans from the farmers organisations (interest 10%/year, repayment period 5 years)

*5 All deficit is covered by the Government budget.