

Integrated Watershed Management Programme

Preliminary Project Report (PPR)

Eranakulam

**Department of Land Resources,
Ministry of Rural Development,
Government of India**

I. Institutional Structures.

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I. Institutional Structures

I. A. State Level Nodal Agencies (SLNAs):

Table-PPR 1: Details of SLNA

1	2	3	4	5	6
No	State	Type of SLNA [#]	Date of Notification	Date of MoU with DoLR	Total no. of members of SLNA
1	Kerala	Mission	14-Jun-10		Twenty Five

Table-PPR 1: Details of SLNA (Contd..)

7		8					
Chairperson and Co Chairperson		CEO					
Name	Designation [#]	Name	Designation	Date of Appointment	Nature of appointment ^{\$}	Tenure	Contact Ph. No./ Fax/ E-mail
L C Goyal	Agriculture Production commissioner		Additional Director of Agriculture (SC Unit)	14-Jun-10			
S M Vijayanand	Principal Secretary, LSGD						

Table-PPR 2: Details of functionaries in the SLNAs*

1	2	3	4	5	6	7	8		9	
No	Total no. of persons working in the SLNA for IWMP	Names & Designation	Qualification	Experience	Work allocation	Monthly remuneration (Rs.)	Total budget of SLNA (Rs.)		Funding expected from DoLR (Rs.)	
							R	NR	R	NR
1										

Table-PPR 3: Details of State Level Data Cell (SLDC) functionalities*

1	2	3	4	5	6	7	8		9	
							R	NR	R	NR
No	Total no. of persons working in the SLDC for IWMP	Names & Designation	Qualification	Experience	Work allocation	Monthly remuneration (Rs.)	Total budget of SLDC (Rs.)		Funding expected from DoLR (Rs.)	
1	N i n e	Technical expert, (Agriculture/ Agriculture Engineering)	PG/Ph.D in the related Field	10 years		50000				
2		Technical expert, (IT/Livelihood,micro enterprises /livelihood)	B Tech. Computer Science / MCA	10 years		50000				
3		Administrative Officer	PG in Administration / Management	10 years		40000				
4		Finance cum Accounts Officer	PG in FM / Accounts / CA	10 years		35000				
5		Accounts assistants - 2 numbers	Graduation in Accounts / Commerce / Economics	5 years		25000				
6		GIS expert	B Tech / M Sc / M Tech in related field	5 years		40000				
7		Data entry operator	Graduate+Certificate in DTP	5 years		15000				
8		Programmer	Diploma/Certificate in related fields	5 years		25000				

I. B. District Level Watershed Units:

Table-PPR 4: Details of functionaries in the DRDA Watershed Cell

1	2	3	4	5	6
No	Name of the District	Name of the executing Agency	Status of Chairman	Date of signing of MoU with SLNA	Total no. of persons working for Watershed programme
1	Thiruvananthapuram	Respective District Panchayaths	President, respective District panchayats		Three each in all Districts, 52 persons in the State
2	Kollam				
3	Pathanamthitta				
4	Alapuzha				
5	Kottayam				
6	Idukki				
7	Eranakulam				
8	Thrissur				
9	Palakkad				
10	Malappuram				
11	Kozhikkode				
12	Wayanadu				
13	Kannur				
14	Kasargode				

Table-PPR 4: Details of functionaries in the DRDA Watershed Cell - cont.

No	Names & Designation	Qualification	Experience	Work allocation	Monthly remuneration (Rs.)	12		13	
						Total budget of Watershed Cell (Rs.)		Funding expected from DoLR (Rs.)	
						R	NR	R	NR
1	Technical expert	Graduation in the related field	5 years		25000				
2	Accountant	Graduation in the related field	3 years		10000				
3	Data entry operator	Diploma / certificate in the related field	3 years		7500				
	52 persons				595000				

II. SELECTION OF WATERSHED PROJECTS

Table-PPR 5 : Status of District-wise area covered under the watershed programme
(MIS Table-M(SP)2)*

1	2	3		4						5	
				Micro-watersheds covered so far						Net watersheds to be covered	
				Dept. of Land Resources		Other Ministries/ Depts.		Total watersheds covered			
				Pre-IWMP projects (DPAP +DDP +IWDP)		Any other watershed project					
No.	Area (ha.)	No.	Area	No.	Area (ha.)	No.	Area h	No.	Area (ha.)		
1	Eranakulam	258	305830	0	0	64	95906	64	95906	94	83628
	State	4529	3874535	29	19345	955	1018761	983	1038991	2067	1459817

Table-PPR 6: Prioritized list of projects proposed for sanction during the financial year 2010-11

1	2	3	4	5	6	7	8																
							No. of micro-watersheds proposed to be covered	Proposed project area (ha)	Type of project (Hilly/ Desert/ Others)	Proposed cost (Rs. in lakh)	Weightage under the criteria#												
											1	2	3	4	5	6	7	8	9	10	11	12	13
1	Eranakulam	IWMP1	6	5897	Hilly	884.55	26	18	0	60	2	0	90	45	85	0	60	0	60	446			
		1	6	5897		884.55																	

Criteria and weightage for selection of watershed

No	Criteria	score	Ranges & scores			
i	Poverty index (% of poor to population)	10	Above 80 % (10)	80 to 50 % (7.5)	50 to 20 % (5)	Below 20 % (2.5)
ii	% of SC/ ST population	10	More than 40 % (10)	20 to 40 % (5)	Less than 20 % (3)	
iii	Actual wages	5	Actual wages are significantly lower than minimum wages (5)	Actual wages are equal to or higher than minimum wages (0)		
iv	% of small and marginal farmers	10	More than 80 % (10)	50 to 80 % (5)	Less than 50 % (3)	
v	Ground water status	5	Over exploited (5)	Critical (3)	Sub critical (2)	Safe (0)
vi	Moisture index/	15	-66.7 & below (15)	-33.3 to -66.6 (10)	0 to -33.2 (0)	
	DPAP/ DDP Block		DDP Block	DPAP Block	Non DPAP/ DDP Block	Above 70 % (Reject)
vii	Area under rain-fed agriculture	15	More than 90 % (15)	80 to 90 % (10)	70 to 80% (5)	Fully covered (0)
viii	Drinking water	10	No source (10)	Problematic village (7.5)	Partially covered (5)	
ix	Degraded land	15	High – above 20 % (15)	Medium – 10 to 20 % (10)	Low-less than10% of TGA(5)	
x	Productivity potential of the land	15	Lands with low production & where productivity can be significantly enhanced with reasonable efforts (15)	Lands with moderate production & where productivity can be enhanced with reasonable efforts (10)	Lands with high production & where productivity can be marginally enhanced with reasonable efforts(5)	
xi	Contiguity to another watershed that has already been developed/ treated	10	Contiguous to previously treated watershed & contiguity within the micro watersheds in the project (10)	Contiguity within the micro watersheds in the project but non contiguous to previously treated watershed (5)	Neither contiguous to previously treated watershed nor contiguity within the micro watersheds in the project (0)	
xii	Cluster approach in the plains (more than one contiguous micro-watersheds in the project)	15	Above 6 micro-watersheds in cluster (15)	4 to 6 micro watersheds in cluster (10)	2 to 4 micro watersheds in cluster (5)	

III) PROJECT WISE PROFILE OF THE SELECTED WATERSHED PROJECT

Table –PPR 7: Project at a Glance

1	Name of the State	Kerala		
2	Name & type [#] (Hilly/ Desert/ Others) of the project	IWMP1	0	Hilly
3	Name of the District	Eranakulam		
4	Names of the Blocks	Vypin Paravoor		
5	Names of Gram Panchayats	Pallipuram Edavanakkade Ezhikara Njarakkal Elamkunnappuzha Nayarambalam		
6	Names & Census Code of Villages covered	Kuzhupilly	00083800	
		Pallipuram	00083900	
		Ezhikara	00083700	
		Njarackal	00084200	
		Nayarambalam	00084100	
		Edavanakkad	00084000	
7	Names & Codes of the micro-watersheds	Pallipuram	14P155a	
		Ezhikkara	14P157a	
		Velanthodu	14P178a	
		Nedungad	14P181a	
		Nayarambalam	14P182a	
		Edavanakkad	14P183a	
8	Four major reasons for selection of watershed	Dilapidated traditional irrigation systems		
		Low productivity of land		
		Strong presence of SC/ST, BPL families and marginal farmers		
		Poor adaptation to climate change		
9	Area of the Project (ha.)	5897		
10	Area proposed to be treated (ha.)	5897		
11	Project Cost (Rs. in Lakhs)	884.55		
12	Name and Address of proposed PIA	Vypin	Block Panchayat	

Table-PPR 8: Details of previously identified DPAP/ DDP areas proposed under IWMP (ha) during the financial year*

There are no DPAP/DDP blocks identified in Kerala

Table-PPR 9: Land Use pattern of the project*

(Area in ha)

1 No	2 Name of watersheds	3 Names of villages	4 Geographical Area of the watershed	5 Forest Area	6 Land under agricultural use	7 Rain fed area	8 Permanent pastures	9 Wasteland	
								Cultivable	Non-cultivable
1	Pallippuram	Kuzhupilly, Pallippuram	1801	0	1430	1801	0	11	360
2	Ezhikkara	Ezhikara	359	0	346	359	0	1	12
3	Velanthodu	Njarackal	362	0	248	362	0	0	113
4	Nedungad	Nayarambalam, Ezhikara	940	0	793	940	0	0	146
5	Nayarambalam	Nayarambalam, Njarackal	1167	0	1087	1167	0	2	78
6	Edavanakkad	Edavanakkad	1269	0	1205	1269	0	2	62
Total			5897	0	5897	0	5897	0	5897

Source of data:

Kerala state land use board and Panchayat resource map

IV. AGRO-CLIMATIC CONDITION

Details about soil types, land uses etc. are given as additional tables

Table – PPR 10: Details of Agro-climatic condition*									
1 No	2 Name of the watershed	3 Name of the Agro-climatic zone covers project area	4 Names of the villages	5 Topography#	6 Average rainfall in mm				
1	Pallippuram	Coastal sandy	Kuzhupilly, Pallippuram	Flat	3448 mm				
2	Ezhikkara	Coastal sandy	Ezhikara	Flat					
3	Velanthodu	Coastal sandy	Njarackal	Flat					
4	Nedungad	Coastal sandy	Nayarambalam, Ezhikara	Flat					
5	Nayarambalam	Coastal sandy	Nayarambalam, Njarackal	Flat					
6	Edavanakkad	Coastal sandy	Edavanakkad	Flat					

Table – PPR 10 a: Details of soil types and major crops

1 No	2 Name of the watershed	6 Major soil types					9 Major crops				
		Brown hydromorphic soil	Lateritic soil	Riverine alluvium	Coastal alluvium	Total	Coconut	Paddy	Mixed	Rubber	Total
1	Pallipuram	0	0	0	1801	1801	715	259	455	0	1430
2	Ezhikkara	0	0	359	0	359	71	191	85	0	346
3	Velanthodu	0	0	362	0	362	78	79	92	0	248
4	Nedungad	0	0	940	0	940	204	347	242	0	793
5	Nayarambalam	0	0	0	1167	1167	175	345	567	0	1087
6	Edavanakkad	0	0	0	1269	1269	211	440	554	0	1205

Table-PPR 11: Details of flood and drought in the project area*

1 No	2 Particulars	3 Villages	4 Periodicity		5 Not affected
			Annual	Any other - once in 4 years	
1	Flood	No. of villages	0	6	0
		Name(s) of villages	0	Kuzhupilly, Pallipuram, Ezhikara, Njarackal, Nayarambalam, Edavanakkad	
2	Drought	No. of villages	0	3	3
		Name(s) of villages	0	Njarackal, Nayarambalam, Edavanakkad	
Total			0	9	0

Table-PPR 12 : Details of soil erosion in the project area

1	2	3	4	5
Cause	Type of erosion	Area affected (ha)	Run off (mm/ year)	Average soil loss (Tons/ ha/ year)
Water erosion				
a	Severe	533	NA	NA
b	Moderate	4718	NA	NA
c	Slight	646	NA	NA
Sub-Total		5897	NA	NA
Wind erosion		0	NA	NA
Total		5897	NA	NA

V. DEMOGRAPHY AND LAND DISTRIBUTION

Details about population is given as table

Key features of population in Table

No	Watershed Name	Area (In Ha)	Total Families	Population			BPL Families	Land holding/Family (In Ha)
				Total	SC	ST		
		5897	29628	135626	18011	150	7072	
1	Pallippuram	1801	13775	62431	6187	43	3600	0.13
2	Ezhikkara	359	1026	4593	897	13	333	0.35
3	Velanthodu	362	2164	9993	1223	26	449	0.17
4	Nedungad	940	3786	17407	2885	25	732	0.25
5	Nayarambalam	1167	5608	25930	4108	40	906	0.21
6	Edavanakkad	1269	3269	15271	2712	2	1052	0.39

VI. LIVELIHOODS

The existing scenario and the opportunities are described in the tables. One more word about capacity building activities. There is tremendous scope of these activities can be organized in the field level in a participatory manner. Of extreme importance is adaptation to climate change. How an effective strategy can be developed is the very question of survival. Then comes the hands on exposure to modern agriculture practices, technologies and machines. Trainings should be imparted in such a manner that new social institutions can be created at grass root level to sustain these initiatives.

Table-PPR 13 Summary of livelihoods

1	2	3	4	5	6
No	Names of the watersheds	Existing livelihood activities	Possible livelihood interventions under the project	Current status of migration (No. of people)	Main reasons for migration
1	Pallippuram	Employment in construction sector, wage labour in semi skilled and unskilled activities, trading etc. are the major livelihood of the poor people now. Middle and upper class are employed in service sector, government and large private	Animal husbandry with strong forward and backward linkages and supporting infrastructure and initiatives at the homestead is the main possibility. High yield cows which can be milked in tandem, scientifically constructed cowshed	624	Lack of job opportunities in the agriculture sector due to low productivity and poor income from land. This is inducing the farmer to fallow the land and search for better alternatives. As more and
2	Ezhikkara			46	
3	Velanthodu			100	
4	Nedungad			174	
5	Nayarambalam			259	
6	Edavanakkad			153	
	6			68	

VII. EXPECTED PROJECT OUTCOMES

VII. (i). Expected employment related outcomes:

Table-PPR 14: Employment generation

1	2	3										4				
		Wage employment										Self employment				
		No. of man-days in '00 s					No. of beneficiaries					No. of beneficiaries				
No.	Names of the watersheds	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total	SC	ST	Others	Women	Total
1	Pallippuram	619	4	12237	7804	20664	619	4	12237	7804	20664	371	3	3059	6243	9676
2	Ezhikkara	90	1	882	574	1547	90	1	882	574	1547	54	1	221	459	735
3	Velanthodu	122	3	1949	1249	3323	122	3	1949	1249	3323	73	2	487	999	1561
4	Nedungad	288	3	3365	2176	5832	288	3	3365	2176	5832	173	2	841	1741	2757
5	Nayarambalam	411	4	5020	3241	8676	411	4	5020	3241	8676	246	2	1255	2593	4097
6	Edavanakkad	271	0	2946	1909	5126	271	0	2946	1909	5126	163	0	736	1527	2426
	6	1801	15	26399	16953	45168	1801	15	26399	16953	45168	####	9	6600	13563	21252

Table-PPR 15: Details of migration from Project area

1	2	3	4	5	6
No	Names of the watersheds	No. of persons migrating	No. of days per year of migration	Major reason(s) for migrating	Expected reduction in no. of persons migrating
1	Pallippuram	624	62431	Lack of job opportunities in the agriculture and allied sectors. Low productivity and poor income from land.	499
2	Ezhikkara	46	2710		41
3	Velanthodu	100	12291		60
4	Nedungad	174	4178		131
5	Nayarambalam	259	25930		220
6	Edavanakkad	153	9010		122
	6	68	5828		1074

VII. (ii). Water related outcomes:

Table-PPR 16: Details of average ground water table depth in the project areas
(in meters)

1	2	3	4	5	6
No	Names of the watersheds	Sources	Pre-Project level	Expected post-project level	Remarks
1	Pallippuram	Open wells	2	2	No difference is expected in the water table. But substantial improvement in water quality and longer duration of fresh water availability is expected.
		Others - Ponds	2	2	
2	Ezhikkara	Open wells	2	2	
		Others - Ponds	2	2	
3	Velanthodu	Open wells	2	2	
		Others - Ponds	2	2	
4	Nedungad	Open wells	2	2	
		Others - Ponds	2	2	
5	Nayarambalam	Open wells	2	2	
		Others - Ponds	2	2	
6	Edavanakkad	Open wells	2	2	
		Others - Ponds	2	2	

Source of data:

Panchayat development report and resource map report

Table-PPR 17: Status of Drinking water*

1	2	3		4		5
No	Names of the watersheds	Availability of drinking water (no. of months in a year)		Quality of drinking water		Comments
		Pre project	Expected post project	Pre project	Expected post project	
1	Pallipuram	9	10	Turbulence, hardness, high iron and salinity are the major issues observed.	Reduced concentration of dissolved salts, less incidence of turbulence, a check regarding the saline intrusion, better bacteriological quality etc. are the major expected post project benefits	The issues listed are culled from varies studies conducted in the area by other agencies. There is also a variation in quality issues during different seasons. More
2	Ezhikkara	8	10			
3	Velanthodu	11	12			
4	Nedungad	10	11			
5	Nayarambalam	7	9			
6	Edavanakkad	11	12			
	6	10	10			

VII. (iii). Crop related outcomes:

Table-PPR 18- Major crops grown and their productivity in the project area

1	2	3		4	
No	Name of the Crop	Current status		Expected post project status	
		Area (ha)	Productivity (kg/ ha)	Area (ha)	Productivity (kg/ ha)
	Kharif	1660	1870	1826	2151
	Paddy				
	Rabi	1660	2111	2324	3483
	Paddy				

VIII. MANDATORY CERTIFICATION

“It is certified that the State Government of Kerala will abide by the following mandatory conditions laid down by DoLR”

1	The area of the proposed projects are not covered under assured irrigation
2	The area of the proposed project is not covered or overlapping with any other watershed projects sanctioned by the central govt./ state govt./ autonomous bodies & others
3	The State must sign all the mandatory MoUs before implementing the project
4	The timeframes and milestones of the projects will be followed
5	The Budget requested for must follow the criteria laid down in the Common Guidelines, 2008

6	The State must release matching State Share within 15 days from release of each installment of central funds
7	Purchase of vehicles and other equipments are not permitted and nor is construction of buildings allowed. Only purchase of computers and related software is permitted
8	Savings, if any, in each component of the project cost can be utilized only for activities in the Watershed works
9	The DWDU will have one Member exclusively responsible for monitoring
10	All works will be evaluated after each phase of completion. Fund release will depend on favourable reports received from evaluators
11	Evaluators must include only institutions and agencies and not individuals
12	The State and DRDA cell will furnish monitoring reports and periodical reports as desired by DoLR
13	Composition of the WDT must be clearly spelt out and the team Members must be fully in place at the time of signing of the MoU of contract between the PIA and DRDA Cell
14	That DRDA shall release the funds to the PIAs and the watershed committees within 15 days of receipt of the funds
15	The Watershed Committee must be a registered society under the Societies Registration Act, 1860
16	At least one of the WDT Members must be a woman
17	The Gram Sabhas of the proposed project areas have passed resolutions for people's contribution towards WDF
18	Resource-use agreements on the principles of equity and sustainability must be worked out among the User Groups prior to the concerned work being undertaken
19	The DPR must give detailed justification for the proposed project duration
20	No works on private lands will be repaired/ maintained from the WDF
21	The PIA will start project work within three months of the receipt of first installment by DWDU/agency or else it can come under the purview of foreclosure
22	The State will not undertake unnecessary foreclosure of the projects. In the event of foreclosure, the State will refund the amount and furnish all necessary documents as desired by DoLR. The State shall also take administrative and legal action against any defalcation, misappropriation, mis-utilization, deliberate negligence and laxity which has caused foreclosure of the project.

Date:

Signature of officer authorized by State Govt.*
NAME OF OFFICER (IN CAPITAL LETTERS)
DESIGNATION

IX. STATUS OF ON-GOING PROJECTS (DPAP/ DDP/ IWDP)

Table- PPR 19: Details of pending UCs: Statewise* Rs in Lakhs

1	2	3	4	5	6	7	8		9		10	11	
No	District	Project	Instalment no.	Financial year of release of fund	Amount released	Amount utilized	Submission of UC		Date of submission of UC		Reasons for not submitting/ delayed submission of UC	Pending UCs	
							Due date	Amount	Date	Amount		Period	Amount
7	Eranakulam												

Table- PPR 20: Details of Unspent balance as on _____: District wise*

1	2	3	4	5		6
No	District	Name of the Project	Total cost (Rs. in lakh)	Total funds released		Unspent balance
				(Rs. in lakh)		
				DoLR	State	(Rs. in lakhs)
7	Eranakulam					
	14		0	0	0	0

X. ABSTRACT OF PROJECTS PROPOSED FOR SANCTION DURING 2010-11

1	Number of districts to be covered under the present proposal	Thirteen	
2	No. of Watersheds projects proposed to be taken up under IWMP	Hilly/Desert	Others
3	Total area to be covered under proposed projects (000' ha)		
	(a) Hilly & Desert areas [#]	5.90	
	(b) Others		0.00
	Total	<u>5.90</u>	<u>0.00</u>
4	Total cost of the proposed Watershed projects (Rs. in lakhs)		
	(a) Hilly & Desert areas [#]	884.55	
	(c) Others		0.00
	Total	884.55	0.00
5	First installment required from central funds for the proposed watershed projects	159.22	0.00

Project Abstract

1	Title of Project	Integrated Watershed Management Programme in Ernakulam	
2	No. of watersheds proposed	<u>6</u>	
3	Area proposed	<u>5897</u>	<u>hectares</u>
4	Project Cost	<u>884.55</u>	<u>in lakhs</u>
5	a	Amount to be met form IWMP	
		<u>796.095</u>	<u>in lakhs</u>
	b	From other sources	
		<u>88.45</u>	<u>in lakhs</u>
6	Designation , address, e-mail and phone number of the officer in ZP/DRDA responsible for this project	Project Director, Poverty Alleviation Unit Ernakulam District Panchayat	
		Phone	
		E-mail	

Certificate

Certified that the watershed proposed to be treated in this project does not overlap with any other scheme and there is no duplication of Central/external assistance.

**President
District Panchayat
Ernakulam**

**Project Director
Poverty Alleviation Unit
District Panchayat
Ernakulam**