



PATHANAMTHITTA DISTRICT



**Endline Evaluation of PMKSY-WDC Watershed Projects****REPORT: RANNI BLOCK (Pathanamthitta District)**

The project area is located in the Ranni Block Panchayath of Pathanamthitta District. Ranni Block Panchayath forms a part of the Western Ghats which have now been declared as a world heritage site by IUCN. Total area covered under this project is 6784 hectares. Ranni, Rajanpara and Sabarimala reserve forests are adjacent to this watershed. Portions of four Gram Panchayaths namely Seethathodu, Chittar, Ranni-Perinnad and Vadasserikkara are covered under this project. The project area constitutes a cluster of five micro watersheds namely, Seethathodu, Mamood, Kavummoola Thodu, Madathummuzhi and Mulamkunnilpadi.

Table 1 Details of micro watersheds in the project area

Sl. No.	Name	Code no.	Gram Panchayats	Treatable Area (Ha)
1.	Seethathodu	10P52p	Seethathodu	1224
			Chittar	
2.	Mamoodu	10P52b	Seethathodu	2134
			Ranni Perinadu	
3.	Kavummoola thodu	10P52s	Chittar	1130
4.	Madathumoozhi	10P52a	Ranni Perinadu	1223
5.	Mulamkunnilpadi	10P52u	Ranni Perinadu	1073
			Vadasserikkara	
Total				6784

The evaluation team from CWRDM visited the project area on 15/03/2019. The team had discussion with the personnel involved in the implementation of the IWMP project, which was held in the conference hall of the Block Panchayath Office. The participants included the BDO, Project Officer, Technical Expert, VEOs and Presidents of respective Gram Panchayaths. In the discussion, participants pinpointed that Ranni Block was severely affected during the floods of August 2018 and the water scarcity worsened after the floods. Everyone was of the opinion that well recharge was found to be very effective, as period of water availability was extended from December to March. One of the VEOs had an opinion that the knowledge of tribal people in indigenous methods of conservation and natural resource management could be included in the DPR.

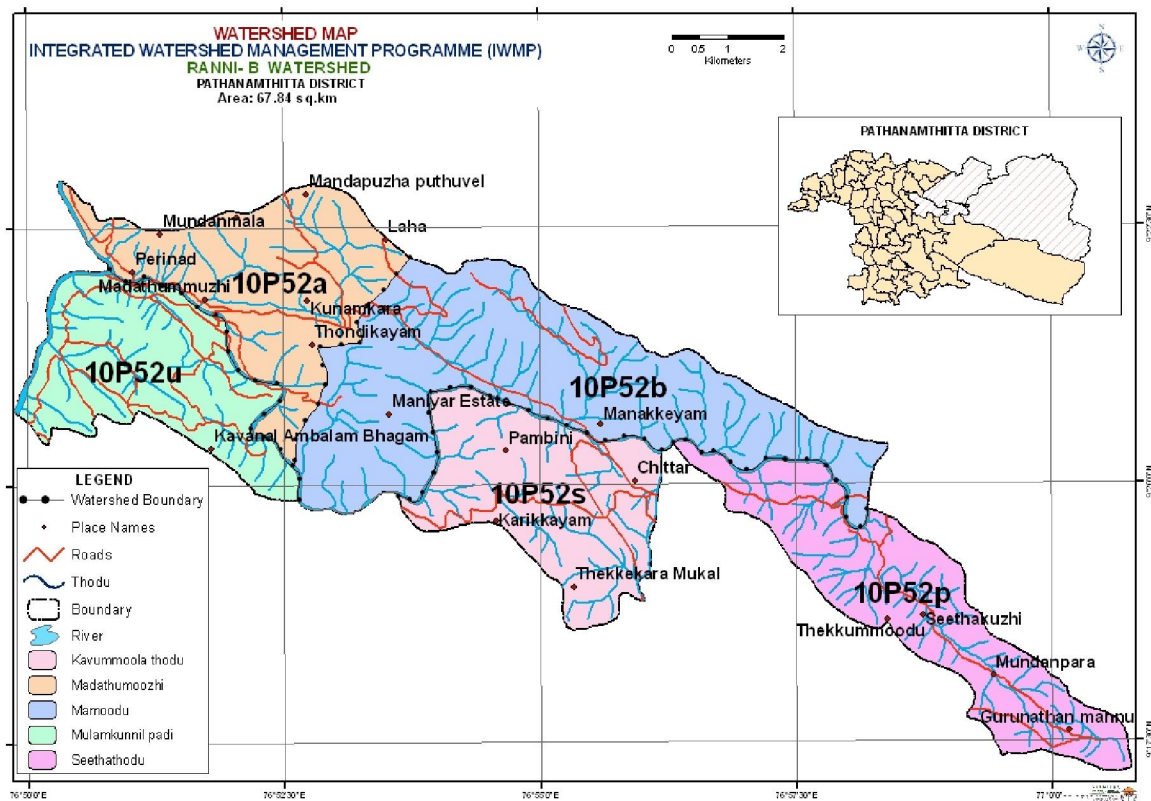


Figure 1: Watershed map of the project area

The works visited by the team are:

1. Remabhai Colony Community Hall rainwater harvesting tank

The tank is situated in the premises of Remabhai Colony Community Hall in the Mulamkunnilpadi watershed of Vadasserikkara Gram Panchayath. The tank is of 25,000 L capacity and is made of ferrocement. Nearly 50 families from the colony benefit from this tank. The total cost of construction was ₹ 1,07,900.

2. Contour bund construction

This work is located in the Mulakunnilpadi watershed of Vadasserikkara Gram Panchayath. A total area of 9686 m² contour bunds has been constructed. Rubber and plantain is cultivated in the land. There was significant improvement in the groundwater table of the area due to the construction of the bunds.

3. Kannanumon Thodu check dam



This structure is located in the Mammoodu watershed of Ranni-Perinad Gram Panchayath. The ground water table of the surrounding area has significantly improved after the installation of the check dam. Nearly 20 families benefit from this structure.

4. Panniyar Colony pond renovation

This work is located in the Kavummoolathodu watershed of Chittar Gram Panchayath. More than 20 families draw water from this pond. The work was completed at a cost of ₹ 52,000.

5. Dharalayam thodu side protection

This work is situated in the Kavummoolathodu watershed of Chittar Gram Panchayath. The side of the stream were lined using rubble masonry. The work was completed at a cost of ₹ 1,07,200.

6. Rain water harvesting tank

This tank is installed in the compound of Govt. U P School, Chittar located in the Kavummoolathodu watershed of Chittar Gram Panchayath. The tank is of 10,000 L capacity and the work was completed at a cost of ₹ 53,200.

The spring inside the school was also renovated under the IWMP project. A small pond was also constructed to collect water from the spring. The work was completed at a cost of ₹ 74,000.

Summary of the Evaluation of Outcomes of PMKSY- WDC Project

District	Pathanamthitta	Date of visit	15/03/2019
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1. Project Details

Project No	IWMP-I/2010-11
Name of Block	Ranni
Date of project initiation	15/03/2011
Date of project completion	31/03/2018
Sanctioned Area (ha)	6784
Sanctioned Cost (₹ lakh)	814.08
Actual Expenditure(₹ lakh)	402.76 (49.47 %)
Name of Villages included in the project	Vadasserikkara, Ranni-Perunadu, Chittar, Seethathodu

**2. Impact Details**

Sl. No.	Items	Unit	Pre-project status	Status at the end of project	Remarks
1	Average depth of water table in dug wells	m	5.4	4.90	Increase is marginal in many wells
2	Average depth of water table in tube wells	m	-	-	Very less bore wells. Not monitored.
3	Number of ground water structures (dug wells + tube wells + hand pumps) rejuvenated	nos.	0	554	543 percolation tanks, 2 Farm ponds, 1 check dam and 8 others
4	Increase in Irrigation potential	ha	1605	2758	Increase of 1153 ha
5	Area of Wasteland brought under productive use (like agriculture, plantation, fodder, etc.)	ha	205	312.09	More than 100 ha of waste land brought under productive use
6	Change in cropping / land use pattern (i) Area under Agriculture Crop (ii) Area under plantation / forest cover (iii) Area Under Wastelands	ha	376.39 4795.6 205	780.39 4847.6 87	Increase in 400 ha of agricultural area. Marginal increase in horticulture crops.
7	Area Under Agriculture Crop (i) Area under Kharif crop (ii) Area under Rabi crop (iii) Area under double crop	ha	150 135 91.39	188 275 317.39	Nearly 3.5 times increase in double crop area.
8	Cropping intensity	%	82	101	An average of 20 % increase
9	Increase in Yield /ha of crops (i) Rabi crop (ii) Kharif crop	qt/ha	7.5 8.0	10.5 10.2	
10	Area of horticulture crop	ha	28	42	An increase of 50%
11	Employment in agriculture related activities among beneficiaries	Man days	9250	15750	16350 mandays generated
12	Employment in non- agricultural sectors	Man days	410	600	
13	Fodder production	qt	2.5	5.25	Nearly two-fold increase
14	Fuelwood production	qt	--	--	No data available



15	Number of milch cattle	nos	1825	2765	An increase of 50 %
16	Milk production	Kl/yr	28	36	28 % increase
17	Duration of flow of water in streams (upto November/December/January/February.... May)		3 months available	5 months available	Positive sign of availability of water to the households during dry season as well
18	Improvement of drinking water facility		March	April	554 RWH structures
19	No. of persons engaged in ancillary activities like fishery, poultry, rural craftsmanship	nos	175	250	An increase of 42%
20	Number of children enrolled in schools in the project area	nos	7006	9701	All the children are enrolled in schools
21	Reduction in migration from rural to urban area in the project area	nos	0	0	The project created 16350 man-days
22	Annual mean household income	Rs	--	--	An increase of 10-20% to some of the households
23	<p>Any other measureable indicator of impact assessment</p> <p>i) Most of the waste land brought under cultivation, this will help in increase in more area under agricultural production thereby increasing household income.</p> <p>ii) The project helps in assisting JLGs (115) & SHGs (217) in the area</p> <p>iii) The project provides a favourable atmosphere to start Production system & micro-enterprises. It benefits 908 beneficiaries in poultry (31 activities), Others in Management Information System (MIS)-49 beneficiaries (4 activities), Banana- 13 beneficiaries (1 activity), Ginger -5 beneficiaries (1 activity), Grow Bag -29 beneficiaries (1 activity) and Cattleshed-2 beneficiaries (1 activity).</p> <p>iv) More than 500 rain water harvesting structures created in the project and also the project helps in creating a good number of man-days. Altogether around 8000 farmers benefitted from this project in the watershed area.</p>				



Rainwater harvesting tank at Remabhai Colony Community Hall



Contour bund constructed in Mulamkunnilpadi watershed



Check dam constructed across Kannanumon Thodu



Renovated pond in Panniyar Colony



Side protection work of Dharalayam Thodu



Rainwater harvesting tank constructed in Govt. U P School Chittar



CONCLUDING REMARKS - PATHANAMTHITTA DISTRICT

- A meeting was called by the Ranni BDO in which the Block Panchayath President, Grama Panchayath Presidents and VEOs attended. They are of the opinion that the project was well conceived and aptly suitable for an area like Ranni, where water scarcity is experienced during summer and exhibits undulating topography.
- The lapses in fund availability has affected the progress. However, in this block almost 50% of the sanctioned budget was spent for different schemes.
- In the meeting called by BDO, they have reported that the 2018 August flood has severely affected the Block and the Block office building itself was inundated and records were lost. It was also reported that the water scarcity in the area worsened after the floods.
- Sediment was deposited from flood water and landslips, landslides etc. Productive agricultural land and some of the structures and NRM measures implemented under the project was also damaged.
- Stone pitched Contour bund construction is very suitable for the terrain of the area. But only limited works of this nature could be done.
- In all the watersheds of Ranni Block, it has been observed that there was improvement in the ground water table due to the implementation of recharge structures like bunds, ponds, check dams, , rooftop rainwater recharge units etc.
- The irrigation potential was also found to increase in certain watersheds due to the construction above structures.
- Soil erosion from stream banks was brought under check by the side protection work of streams in the watersheds under the project.
- Drinking water shortage was also taken care of by the installation of rainwater harvesting tanks and well-recharge units and construction /renovation of ponds/wells.
- Employment was generated both in agricultural and non-agricultural sectors during the implementation of the project. More than 500 rain water harvesting structures created in the project and also the project helped in creating a good number of labour man-days.
- The project provided a favourable atmosphere to start Production system & micro-enterprises. Training and exposure visit was conducted for the stakeholders in livelihood activities and production system management by a Palakkad based NGO.
- Activities like organic farming, backyard vegetable cultivation, animal husbandry programmes etc. were promoted under the project.



Success stories

Remabhai Colony Community Hall rainwater harvesting tank

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Contour bund construction

This work is located in the Mulakunnilpadi watershed of Vadasserikkara Gram Panchayath. A total area of 9686 m² contour bunds has been constructed. Rubber and plantain is cultivated in the land. There was significant improvement in the groundwater table of the area after the construction of the bunds. Since the entire area of the watershed is of undulating topography, this type of contour bunds, if taken in every piece of land will substantially contribute to the groundwater recharge in the watershed.

Kannanumon Thodu check dam

This structure is located in the Mammoodu watershed of Ranni-Perinad Gram Panchayath. The ground water table of the surrounding area has significantly improved after the installation of the check dam. Nearly 20 families benefit from this structure.