

IRITTY BLOCK – IWMP -IV (Kannur District)

Iritty Block Panchayat is established in the year 1982 and its headquarters is at Iritty. Iritty (IWMP batch IV) project, under Iritty Block Panchayat is located at Thalassery Taluk in Kannur district in Kerala. Under the Iritty block panchayat, 13 watersheds are present. Out of 13 watersheds, one watershed has already been completed under WGDP. So, a total of 12 watersheds were treated under PMKSY.

The project area lies in between the longitudes of 75°30' E to 75°40'E and latitudes of 11°55'N to 12°10'N. The eastern part of the project area is bounded by the Karnataka Forest and the western part is bounded by the Valapattanam river. The project area is undulating with high peaks and small hillocks. The topography of the major part is generally with steep slopes, medium slopes and in some places- plains. The total sanctioned project area is 4945.49 ha.

Table 1. Details of micro watersheds

Sl No	Name of Watershed	Watershed code	Area (in Ha)
1	Kadathumkadavu	32V27a	369.52
2	Perumparamba	32V27h	374.49
3	Vilamana	32V27g	229.7
4	Maadathil	32V28a	427.16
5	Kunnooth maramveena kandi	32V28b	612.41
6	Vallithodu	32V28c	263.48
7	Kuttichathan kund	32V28d	338.8
8	Kollikkadavu	32V28x	580.1
9	Vattiyara	32V28y	333.79
10	Aanapanthi	32V28p	328.65
11	Naatel	32V28q	262.29
12	Peratta	32V28e	825.1
Total			4945.49

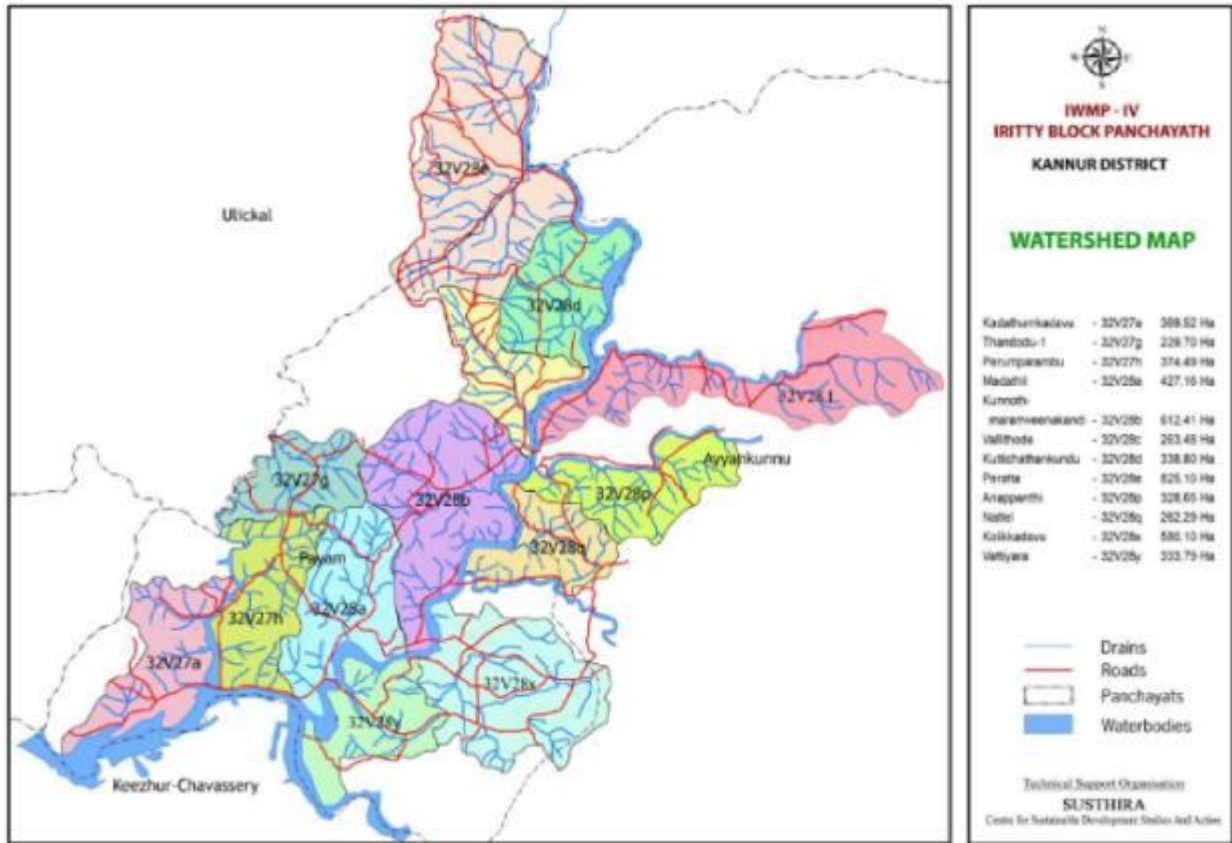


Fig 1: Map of the Watershed area

On June 20 2022, the CWRDM evaluation team made its initial visit to the IWMP IV project. After that, the team discussed with the team in charge of carrying out the project. In attendance at the meeting were BDO, a technical expert, and VEOs. With the aid of technical specialists and the relevant VEOs, the team visited the project area. The investigative team met with a number of beneficiaries and stakeholders on the field to get their perspectives on how the PMKSY initiatives has impacted their lives.



Fig 2: CWRM team at BDO office, Irritty

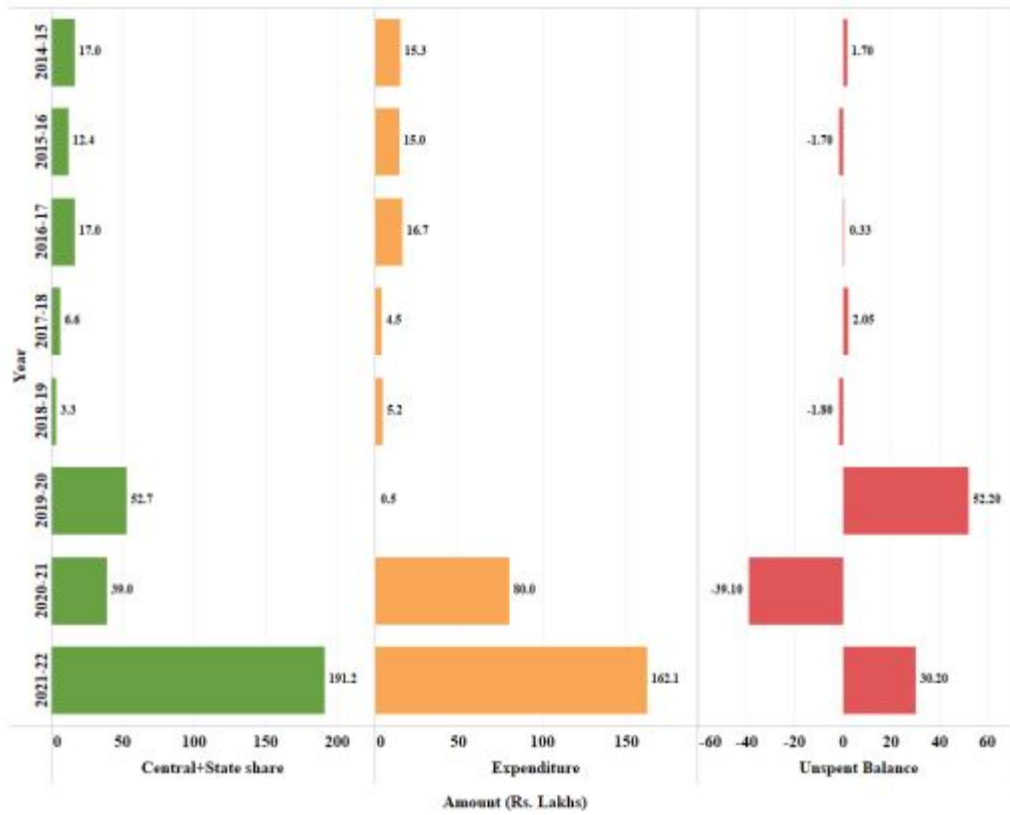


Fig 3: Financial overview of the project

A total of Rs. 575.35 Lakhs received from the Center and State Government from 2014-15 to 2021-22 and out of which an amount of Rs. 552.36 lakhs has spent under the project. The amount received is not uniform and the majority amount received is in the last financial year. This irregular flow of funds affects the quality of interventions in the watershed area. An amount of Rs. 33.1 lakh unspent balance has refunded to SLNA.

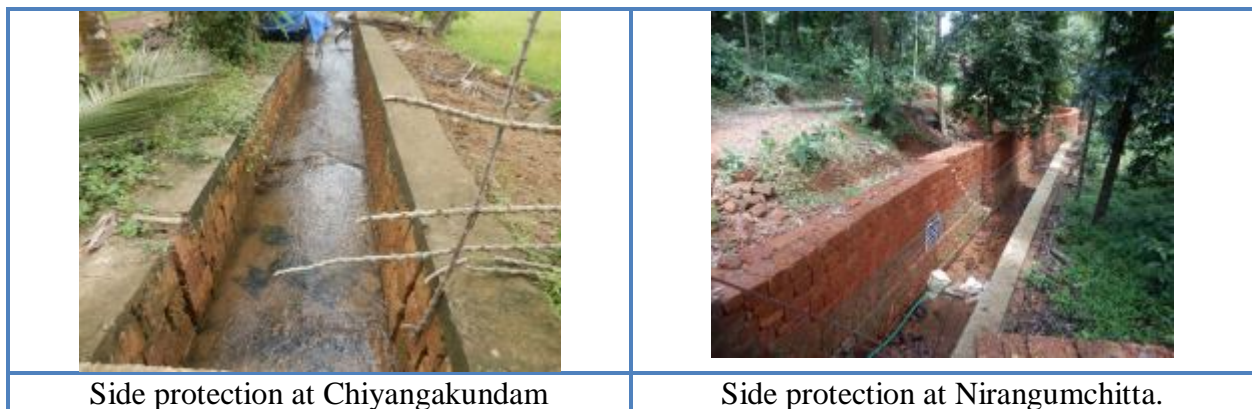
The works which the team visited are:

1. Side protections:

- a) Side protection of 600m length at Chiyangakundam in Kolikkadavu watershed of Payam Panchayath. It provides provision for check planks. The main aim of this construction is to control flood. It was completed with a cost of Rs. 20 lakhs. Now 2 cropping seasons has been taken up and around 12ha of paddy land is being brought under second crop, which helps in increasing cropping intensity in the area at the same time increase in agricultural production and increase in income. The residents resided at Chiyangakundam padashekaram were very happy with the work of this side protection and they want this kind of work to be taken up in the remaining areas of the padashekaram in order to reduce flood and at the same time help the farmers to take up paddy and other agricultural crops in the area.
- b) Side protection of 112m length on both sides of the stream at Nirangumchitta. It was for controlling flood and prevent soil erosion. The work was completed at a cost of Rs. 10 lakhs.
- c) Side protection at Orupullakari, Vilamana watershed of Payam panchayath. It has a length of 112 on both sides. The cost of construction for this structure was Rs. 10 lakhs. This intervention is mainly used to prevent soil erosion and control flood. And also for irrigation of cassava and banana crops of nearby areas.
- d) Side protection at Pudhuserry, Kadathumkadavu watershed of Payam panchayath. It has 1 m height and 240m long on both sides. The work was finished for Rs. 10 lakhs. Localities appreciated the work as it reduces flood and helps in taking up agriculture. They want this side protection to be expanded in other areas as it is only restricted to 240m.

- e) Side protection of 320m length at Alapara in Kadathumkadavu watershed, Payam panchayath near Alapra Anganwadi ward. It helped in flood control. The cost of this construction was Rs. 10 Lakhs.
- f) Side protection of 1 m height and 240m length with check planks at regular intervals at Vattiyara in the Vattiyara Watershed of Payam Panchayath. It helped in the irrigation of more than a 20-acre agricultural area. Another work of side protection adjacent to this at a height of 0.8 m, 300 m length on both the sides was carried and completed for Rs.10 lakhs.
- g) Side protection at different heights such as 1m, 1.2m, 0.8m, etc.based on the soil gradient at 32nd mile in Kuttichathankundu watershed of Payam panchayat. It has a length of 130m on both sides. Before side protection, the entire area is flooded during heavy rains and the water in wells is not usable. After this flood control is reduced, no gush of water to the houses and well water is not contaminated. Residents are very much happy with the construction of this side protection.

These side protection activities help in reducing the inundation and flood control in the areas. In addition to this, these structures help in bringing more area under agriculture thereby increasing the crop intensity and income to the farmers. As Iritty is highly undulating topographically, structures like side wall protection interventions must be taken up in the entire watershed to improve the overall health of the watershed area.



	
Side protection at Orupullakari	Side protection at Pudhuserry
	
Side protection at Alapara	Side protection at Vattiyara - I
	
Side protection at Vattiyara - II	Side protection at different heights in Kuttichathankundu watershed

2. Production system:

- a) Distribution of Cow under PSMEto Santhosh Ashariparamba in Nattel Watershed of Ayyankunnu panchayath. It was an HF breed at a unit cost of Rs. 30,000/- with a 20 % beneficiary contribution.
- b) Cow distribution at 'Usha' house in Valithode watershed of Anapanthi Kavale of Payam panchayath. It has a unit cost of Rs. 24,000/- with Rs. 6,000/- beneficiary contribution.



These PSME activities help in increasing the additional income of the household and also promote animal husbandry. At present, the population depend on agriculture and animal husbandry is diminishing, hence, promoting these activities will help in retaining the agriculture sector for the future generation.

3. Well renovations:

- a) A Well renovation at Anappanthi watershed of Ayyankunnu panchayath with a cost of Rs. 0.65 lakhs. Water in this well is mainly used for drinking purpose to the township people.



It looks like the well renovation activities are done in a superficial manner by simply painting the outer layer. Instead of that identifying the defunct wells and carrying out the actual renovation works is what is needed in the project area.

4. Well recharge:

- a) A Well recharge unit with a 200 liter filter tank was installed at 'Benny Joseph' house in Anappanthi watershed of Ayyankunnu panchayath. It has a unit cost of Rs.80,000/- with a 10 % beneficiary contribution. Earlier Panchayath used to supply water in summer, now water is available throughout the year after installing this well recharge method.



Well recharge at Benny Joseph house

5. Pond constructions and renovation:

- a) New pond construction was carried out with the specification of 10X10X4 m at Vallithode watershed of Payam Panchayath. The Vallithode committee is taking care of this pond. This pond water is used for both agriculture and fisheries purposes. An area of 8 acres agricultural land is irrigated by this pond. The pond was built at a cost of Rs.10 lakhs.
- b) Pond renovation with the specification of 7.5X7.5X4m at Vallithode watershed of Payam Panchayath. Water is being transported through gravity to the nearby ST colony for drinking and household activities. More than 50 families depend on this pond. The pond renovation was completed for Rs. 8 lakhs.
- c) New pond construction was carried out with a specification 12X8X4.5m at Madathil watershed of Payam Panchayath. It was built for Rs. 10 lakhs. Irrigation of more than 10 acres was done using a pump. Vegetables and Banana are the main crops that are cultivated in this area.



New pond construction at Vallithode watershed

Pond renovation at Vallithode watershed



New pond construction at Madathil watershed

6. Groundwater recharge was installed at 'Jose A. K. Erappurath' house in Kunnoth Maramveenakandi watershed of Payam panchayath. The tank has a capacity of 300 liters. It has a unit cost of Rs. 8000/- with a 10% beneficiary contribution. This activity helps in providing water to the household throughout the year. Though the area receives an average of 3300 mm of annual rainfall, the residents experience water scarcity during the summer months. This kind of ground water recharge by harvesting the roof water helps in reducing the water scarcity issue in the region and also improving the water table level.



7. Check dam with side protection At Ayirakulam, Perumparambu watershed of Payam panchayath. The dam was built at a cost of Rs. 5 lakhs. It diverts water for irrigating bananas, vegetables and help in the irrigation of more than 10 acres of land. Check planks are also provided in the stream to infiltrate water and also control the flow of water. A 110m long side protection on both sides also provided.



Check dam with side protection At Ayirakulam

8. Livelihood Support system:

- a) 'Karunya' SHG – Rs. 25,000/- seed money distributed to 'Karunya' SHG for cultivating agricultural crops. With that money, traditional paddy, chrysanthemum, yam, etc. were cultivated on 50 cents of land. Ploughing of the land was done in

convergence with MGNREGS. Activities of a similar kind of convergence may be explored to benefit the watershed stakeholders.



The activities like construction of sidewall protection, renovation of ponds and creation of new ponds help in catching more rainwater, arresting the flow of water, and increasing the groundwater capacity. Through these interventions, the water table in the area is increased by 2 m in wells and solves the problem of water scarcity to a certain extent.

Summary of the Evaluation of Outcomes of PMSKY-WDC Projects

District	Kannur	Date of Visit	20/06/2022
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1. Project Details:

Project No	IWMP/IV/2012-13
Name of Block	Iritty
Sanctioned Area (ha)	4945.49
Sanctioned Cost (Rs in lakh)	741.82
Name of Villages included in the project	Payam, Vilamana, Ayyankunnu, Vayathur

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	6.5	4.5	2 m increase in groundwater table
2	Average depth of water table in tube wells	m	40	39	1 m increase in water column of tube wells
3	Number of groundwater structures (dug wells + tube wells + hand pumps) rejuvenated	nos.	4144	4150	1 pond and 1 well renovated
4	Increase in Irrigation potential	ha	-	138	Pre-project data is not available
5	Area of Wasteland brought under productive use (like agriculture, plantation, fodder, etc.)	ha	25.55	12	50 % reduction in wasteland
6	Change in cropping / land use pattern (i) Area under Agriculture Crop (ii) Area under plantation / forest cover (iii) Area Under Wastelands	ha	2686 1229.29 25.55	2806 -- 12	Increase of 120 ha in agriculture area
7	Area Under Agriculture Crop (i) Area under Kharif crop (ii) Area under rabi crop (iii) Area under double crop	ha	2280	2450	Increase in Kharif crop
8	Cropping intensity	%	109	115	6 % increase
9	Increase in Yield /ha of crops (i) rabi crop (ii) Kharif crop	qt/ha	10	15	An increase of nearly 2.5 qt/ha of paddy



10	Area of horticulture crop	ha	--	--	Increase of nearly 20 ha area
11	Employment in agriculture related activities among beneficiaries	Man days	123500	27060	5225 mandays of employment generated under the project
12	Employment in non- agricultural sectors	Man days	175000	375	
13	Fodder production	qt	--	--	
14	Fuelwood production	qt	--	---	No data available
15	Number of milch cattle	nos	4800	5832	
16	Milk production	Kl/yr	880	990	Increase in milk production
17	Duration of flow of water in streams (upto November/December/January/February....May)		February	April	Increase in flow of water by 2 months
18	Improvement of drinking water facility		Up to April	Up to may	Improvement in drinking water facility by one more month
19	No. of persons engaged in ancillary activities like fishery, poultry, rural craftsmanship	nos	-	-	No data available
20	Number of children enrolled in schools in the project area	nos	-	-	All children enrolled in schools despite the Covid-19 pandemic
21	Reduction in migration from rural to urban area in the project area	nos	-	-	Reduced the migration to some extent during the project period.



22	Annual mean household income	Rs	65000	78000	An increase of Rs. 13000/-
23	Any other measurable indicator of impact assessment <ul style="list-style-type: none">➤ 387 wells recharged, 9 farm ponds constructed.➤ 127 plants distributed during EPA➤ 1218 farmers benefitted from this project				