

KATTAPPANA BLOCK (IDUKKI DISTRICT)**Project No: IWMP-VII/2012-13**

Kattappana is a Block in Idukki District of Kerala. The Project area is located in the Southern part of the Kattappana Block and it is laid on the southern portion of the Idukki district. The Cluster area is situated between 9°38'10.483"N 9°43'43.392"N Latitude and 76°56'41.749"E 77°4'31.141"E Longitude. The total extent of the cluster is 4465 hectares. The cluster area is bounded on the North by Arakkulam Grama Panchayath and Kanchiyar in Idukki district, South by Elappara Grama Panchayath, in West Kumali and Chakkupallam Grama Panchayath and East by Elappara Grama Panchayath.

Table 1. Details of micro watersheds

Sl No	Name of Watershed	Watershed code	Gram Panchayaths covered	Area (in Ha)
1	Karinkulam	14P53a	Ayyappankoil	1046
2	Pookkulam	14P54a	Ayyappankoil & Kumali	757
3	Haileyburia	14P109a	Elappara	303
4	Valakode	14P110i	Upputhara	1021
5	Cheenthalar	14P110j	Upputhara	821
6	Chappath	14P111a	Upputhara	517
Total				4465



Fig 2: CWRDM team met the 'Bharana Samithi' of Kattappana panchayath

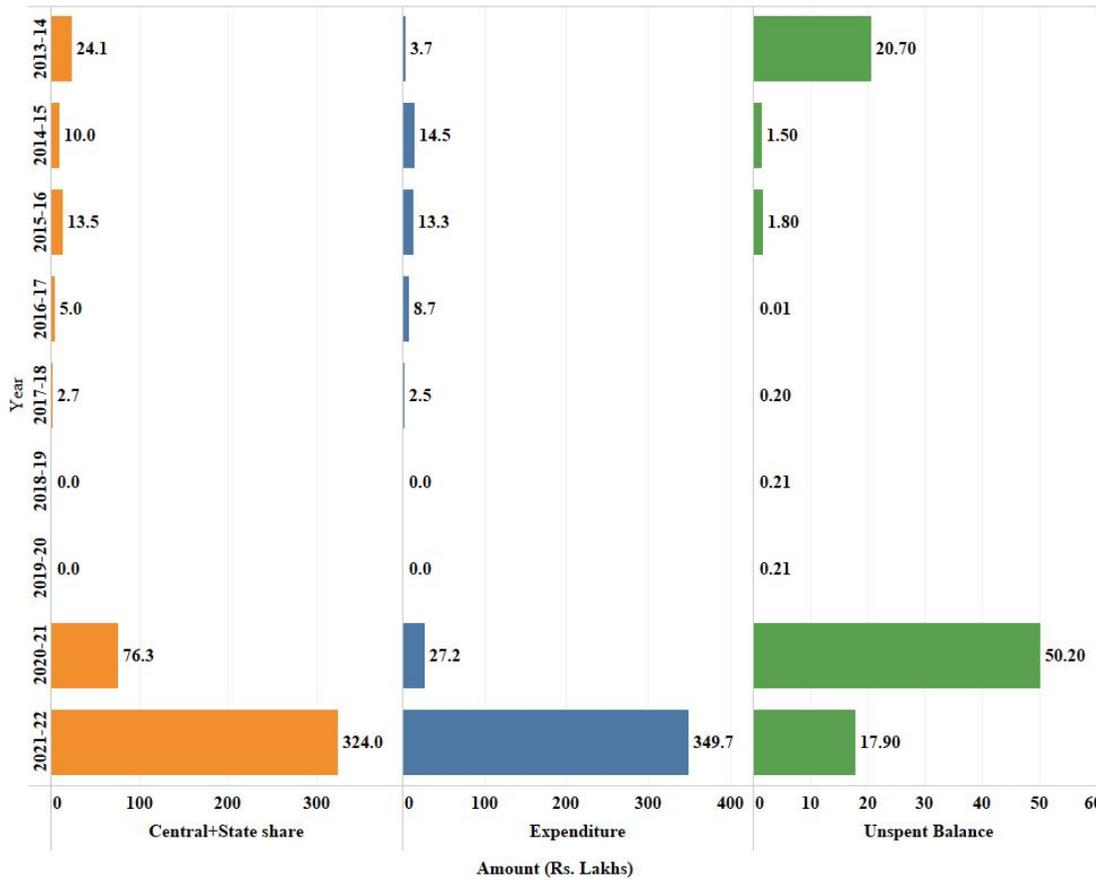


Fig: Financial Statement of Kattappana Block

For Kattappana Block, it was observed that the financial contribution from both the Centre and State was very poor till 2020-21. The highest amount received was in the FY

2021-22 and the expenditure follows the same. To ensure good work specially in high ranges, treatment of ridge portion needs more money as these areas were not easily accessible. More allocation is needed in Idukki District to arrest the siltation and landslides by properly practicing effective watershed interventions.

The following work sites were visited by the team.

1. Pond construction and renovations

- a) Pond renovations with side protection at ChenninayakanKudi in the Pokkulam Estate watershed of Ayappancoil Panchayath. This pond is mainly used for drinking and domestic purposes. The pond has 6 rings and around 50 families benefited from it during the summer. This renovation was carried out in the period of 2021–2022 at a cost of Rs. 2.71 lakhs.
- b) Water pond at Pullumedu in the Karinkulam watershed of Ayappancoil Panchayath. It has a capacity of 1 lakh litres and can be used for more than 100 houses. It was constructed at a cost of Rs. 8.4 lakhs.
- c) Pond renovation at Valakode watershed of Upputhara panchayath. It was 6 m deep with 14 rings. The pond was renovated at a cost of Rs. 6.80 lakhs.
- d) New pond construction at 'Joseph E.J' house in Valakode watershed of Upputhara panchayath. This pond consists of 6 concrete rings.
- e) Pond renovation at Cheenthalar watershed of Upputhara panchayath. It has 16 rings and the cost of construction was Rs.15 lakhs. More than 60 families using this pond water for their daily needs.
- f) Pond renovation at Haileyburi watershed of Elappara panchayath. More than 10 families using this water for drinking and other activities. This well was renovated at a cost of Rs. 5.31 lakhs.

Pond renovation is the process of converting a non-wetland location into a deep water habitat in connection with agricultural activities. Rainfall in this area cannot be replenished by the locals for use in agriculture and household needs. Consequently, this project had a big effect on this area. The project's goal is to supplement irrigation during the off-season, promote pisciculture in the region, make cattle rearing easier, and provide drinking water to mountain top settlements. A total of 49 farm ponds were constructed with a carrying capacity of 49,000 litres of rain water harvested. The renovation of the ponds raised the water level in the nearby wells. This was also very beneficial for the expansion of agriculture. An additional 4964 ha of land has been brought under protective irrigation.

	
<p>Pond renovations with side protection at ChenninayakanKudi</p>	<p>Water pond at Pullumedu</p>
	
<p>Pond renovation Valakode watershed</p>	<p>New pond construction to Joseph E.J</p>
	
<p>Pond renovation at Cheenthalar</p>	<p>Pond renovation at Haileyburia</p>

2. Rainwater harvesting structures

- a) Located at ChenninayakanKudi in Pokkulam Estate of Ayappancoil Panchayath. A silpaulin tank is used to harvest water and transfer it to the RWH tank. The tank has a capacity of 8000 litres with a unit cost of Rs. 30,000/-.
- b) Rooftop harvesting at 'Ramachandran' house in Pokkulam Estate of Ayappancoil Panchayath. The tank has a capacity of 8000 litres with a unit cost of Rs. 30,000/-.

- c) Rainwater harvesting tank at Anganwadi in Pokkulam Estate of Ayappancoil Panchayath. The tank was constructed at a cost of Rs. 2.86 lakh and it has a capacity of 35,000 litres.

The scarcity of drinking water during summer months was a significant issue experienced by the residents in this area. The construction of these rain water harvesting structures solved the drinking water scarcity to some extent in the summer months. Under this project a total of 197 rainwater harvesting systems were constructed. Through better availability of drinking water, this will help improve the health and welfare of the people in the region.



- 3. **Well recharge** at 'Rejimon Joseph' house in Karinkulam watershed of Ayappancoil Panchayath. It has a unit cost of Rs. 10,000/- with a 10 % beneficiary contribution.

The broad aim of the programme is to improve the water quantity and quality levels of homestead open dug wells and small homestead ponds. This will contribute to enhanced

health and welfare of the community through improved access to drinking water. The reduction of public spending on Tanker Water Distribution to the water stressed regions which is common during summer is also envisaged as a broader goal of the programme. The main goal of the programme is ground water recharge and improved drinking water availability during summer months. The programme would also envisage strengthening of the decentralization programme and the PRIs, in discharging their basic mandate in water sector through community efforts that are cost effective and sustainable.



4. Production system management

- a) Poultry distribution to “Raja” in Karinkulam watershed of Ayappancoil Panchayath. A total of 10 chicks were distributed in the ration of 8:2 at Rs. 120/- per chick.
- b) Sapling distribution to ‘Shamsudheen’ at Karinkulam watershed in Ayappancoil Panchayath. A total of 7 saplings were distributed and these include: Mangostein (1), Rambutan (4), Sapota (1), and Pineapple (Jack Variety-1). The unit cost of this activity is Rs. 2100/- with a beneficiary contribution of 10 %.
- c) Cow rearing by ‘Suja Vinod’ at Karinkulam watershed of Ayappancoil Panchayath. An HF breed is provided with a cost of Rs. 15000/-.
- d) Compost pit to Joy Chacko at Cheenthalar watershed of Upputhara panchayath. It was done in convergence with MGNREGS with a cost of Rs.9500/-.

- e) Subsidy component- Mushroom cultivation with a unit cost of Rs. 30,000/- and a beneficiary contribution of 10 % was provided to 'Rijo Thomas' at Valakode watershed in Upputhara Panchayath. He mainly cultivates oyster mushrooms and maintaining 1500 benches at the time of visit and he earns an income of Rs. 30000/- per month.

PSME in rural watersheds will support families and enhance their economic status by raising their income levels. Smallholders can manage and market their farm products more effectively, taking advantage of new agricultural prospects, by integrating agricultural training with entrepreneurship training. Under the project, distribution of 1220 units of chicks, 19 units of beekeeping, 1 unit of mushroom cultivation, and approximately 357 ha of pepper and tuber cultivation were promoted.

The chick production region has got a positive response through increased egg production, which on the other hand has provided additional income sources to housewives. The hybrid chicks were duly vaccinated before distribution. Bee keeping enhanced the production and stability in income for the selected families. Apart from honey production bee keeping also helps in the pollination process especially in the cardamom belts. Honey consumption is traditionally practised in the high ranges of Idukki. Hence, this project spreads local availability of honey. Mushroom units expanded mushroom cultivation with female participation there by helping income generation for the needy farm women.



Poultry at Karinkulam watershed

Sapling distribution



Cow rearing by Suja Vinod



Compost pit to Joy Chacko



Mushroom cultivation of Rijo Thomas

**Summary of the Evaluation of Outcomes of PMSKY-WDC Projects**

District	Idukki	Date of Visit	30/06/2022
----------	--------	---------------	------------

1. Project Details:

Project No	IWMP -VII/2012-13
Name of Block	Kattappana Block Development Office
Sanctioned Area (ha)	4465 ha
Sanctioned Cost (Rs. in lakhs)	669
Name of Villages included in the project	Upputhara, Ayappancoil, Aanavilasam, Elappara

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	4.36-11.2	3.5-10.4	Approximately 1m increase in water level in open wells during pre and post monsoon season
2	Average depth of water table in tube wells	m	83	76	7 m increase in water column of tubewells
3	Number of ground water structures (dug wells + tube wells + hand pumps) rejuvenated	nos.	--	49	Pre-project data not available. 49 farm ponds were rejuvenated
4	Increase in Irrigation potential	acre	--	1296	Pre-project data not available. Increase in irrigation potential was observed
5	Area of Wasteland brought under productive use (like agriculture, plantation, fodder, etc.)	ha	--	--	No data available
6	Change in cropping / land use pattern	ha			Pre-project data not available.
	(i) Area under Agriculture Crop		--	87.75	
	(ii) Area under plantation / forest cover		--	7	
	(iii) Area Under Wastelands		--	23	



7	Area Under Agriculture Crop (i) Area under Kharif crop (ii) Area under rabi crop (iii) Area under double crop	ha	32 28 13.07	43 40 24	Marginal increase in Kharif crop area
8	Cropping intensity	%	132	138	6 % increase in cropping intensity
9	Increase in Yield /ha of crops (i) rabi crop (ii) Kharif crop	qt/ha	28 34	40 39	Yield increase by 5 qt/ha
10	Area of horticulture crop	ha	202.5	274.25	Area under horticultural Crop increased by nearly 70 ha.
11	Employment in agriculture related activities among beneficiaries	Man days	6250	20966	14716 mandays of employment generated under the project
12	Employment in non- agricultural sectors	Man days	2100	3700	
13	Fodder production	qt	5	25	Fodder production increased.
14	Fuelwood production	qt	--	--	No data available
15	Number of milch cattle	nos	2167	3400	Milch cattle population hike by 56%
16	Milk production	Lakh liter/yr	5100	7200	Milk production increased by 41 %
17	Duration of flow of water in streams (upto November/December/January/February....May)		Feb	May	Flow in streams enhanced by three months
18	Improvement of drinking water facility		Jan	May	Drinking water availability improved by four months
19	No. of persons engaged in ancillary activities like fishery,poultry, rural craftsmanship	nos	2600	4000	Marked increase
20	Number of children enrolled in schools in the project area	nos	--	--	All children enrolled in schools
21	Reduction in migration from rural to urban area in the project area	nos	0	0	Nearly 14716mandays/labour opportunity
22	Annual mean household income	Rs	35000	45000	Rs. 10000 increase
23	Any other measurable indicator of impact assessment ➤ Total rain water harvesting structures created 255 and rejuvenated 49				



- 26560 farmers benefited from the project
- 1220 poultry farming units were distributed under the project
- 89 compost pits were installed in the project area

BEE KEEPING

Bee keeping is a successful intervention under the production system and micro-enterprises. Bee keeping enhanced the production and stability of income for the selected families. It has a production cost of Rs. 114000/-with a beneficiary contribution of Rs.22800/-. A total of 19 units were distributed by PSME in Kattappana block. Apart from honey production, bee keeping also helps in the pollination process, especially in the cardamom belts. Honey consumption is traditionally practised in the high ranges of Idukki. Hence, this project increases the local availability of honey.

Success story