WANDOOR BLOCK (MALAPPURAM DISTRICT)

PROJECT NO: IWMP 7 /2012-13

The Project area is situated in the Southern part of the Wandoor Block and it is laid in the central portion of the Malappuram district. The Cluster area is situated between 11°8'16.16"and 11°10'26.90"N latitude and between 76°12'58.46"and 76°13'33.40"Elongitude. The total extent of the cluster is 5820 hectares. Physiographically, the project area forms part of both the midland and highland units.Descending from the heights of the Western Ghats in the east, the land slopes towards the west forming three distinct – the highlands, the plains, and the sea coast. The cluster area is bounded by the North Thrikkalangod Gram panchayath and Porur Gram Panchayath in Malappuram district, South Manjeri Municipality and Pandikkad Gram Panchayath, in West Thrikkalangod Gram Panchayath and Manjeri Municipality, in the East Pandikkad GramPanchayat.

Table 1: Details of micro watersheds

Name of the micro watershed	**Code**	**Grama panchayat**	**Area (Ha)**
Edappulam	23K23f	Porur	568.58
Aayanikode	23K23g	Porur	638.98
Porur	23K23h	Porur	3092.30
Olippuzha	23K25a	Pandikkad	1520.14
Total			5820

The project evaluation team from CWRDM visited the IWMPwatershed areas of Wandoor block VII of Malappuram district on 16.06.2022. The team held a discussion with the block development officer and Village extension officers later the team visited the project implemented areas.

Fig.2:CWRDM team at BDO office, Wandoor, Malappuram

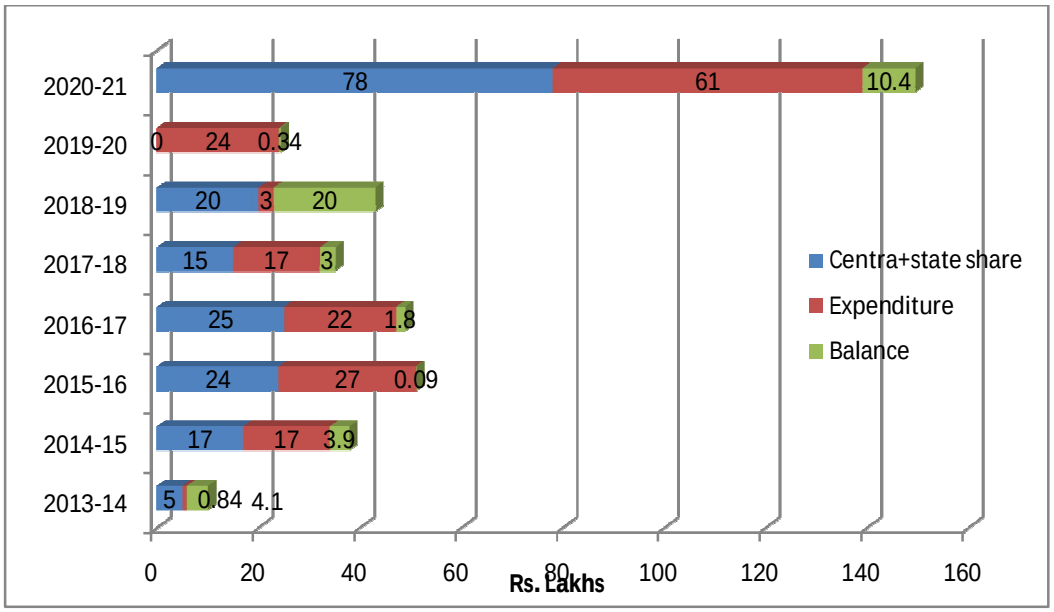

Fig.3 Financial overview of the Project

From the financial records, it was found thatno funds were received during FY 2019-20, and in FY 2020-21 more funds were received. The year-wise funds received and expenditure incurred are shown in Fig 3above. It was revealed that the expenditure incurredwas more in the last FY compared to the other years.

Kavukulam renovation

Kavukulam spread over an area of more than 50 cents was lying in a totally neglected way and the holding capacity was reduced due to the high quality of silt deposits. The work was undertaken under PMKSY and the pond was renovated into a water holding structure with a capacity of 42 lakh litres (4200 m^3), and many other ponds were newly constructed and renovated for the same purpose.

Specification:

Watershed	Edappulam
Water storagecapacity	4200 m^3
Dimension	35 x30 x 4 m

Well recharge structures

One of the major Interventions carriedout under watershed development was augmenting groundwaterresources by roof water harvesting. The message that every drop of water was to be conserved was successfully conveyed to the households. A totalof 1700 roof water harvesting structures wereundertaken and point recharge of the dug wells was carried out. This work wasreplicated by others in a voluntary way as water availability showed a remarkable increase.

The wells used to completely dry up in the summer before well recharge operations, but they now have water all year round. Additionally, when naturally filtered precipitation is held in groundwater, the number of contaminants in the water is decreased.

Miyawaki

As part of the afforestation,400 saplings of various fruits bearing trees were distributed to establish 25“Miyawaki” forestsin the project area. Each Miyawaki forest occupiesan area of 2.5 cents (10*10 m).

It has revolutionised the concept of urban afforestation by turning backyards into mini-forests. The overall density of the forest is beneficial in lowering the temperature, making soil nutritious, supporting local wildlife, and sequestration of carbon in the area.

Bio Diversity Park

Under IEC, a Bio Diversity Park was made in GLPS Pattanamkundu in Porur Gram Panchayath. In addition to this, wall paintings with watershed development messages were done on school walls, Anganwadis, and many other public places and institutions.

Kavukulam renovation

Well recharge structure

Miyawaki Forest

Bio Diversity Park

Wall paintings

CONCLUDING REMARKS

- The project area in Wandoor block identified with a decline in groundwater level shifting of agriculture towards cash crops leads to deterioration in the ecosystem, soil erosion,and decline in forest cover, hence, decrease in income of the farmers. With the implementation of NRM activities like Rainwater harvesting tanks, well recharging, rejuvenation of ponds,drainage line treatments and Soil & Moisture conservation activities etc. the improvement in groundwater and decrease in soil erosion was observed.
- The users of roof water harvesting structures were given training on the operation and maintenance of structures using the capacity building component. This will help them to maintain the structure and sustainability of the project can be improved.
- Under LSS, milch animals were given to the beneficiaries. It was observed that the beneficiaries are using the subsidy money very effectively and doubled the way to generate the income. Around 200 milch animals were given under the scheme. This leads to doubling milk production and an increase in income.
- Under IEC a Bio Diversity Park was made in GLPS Pattanamkundu in Porur Grama Panchayath. Further Wall paintings with watershed development messages were done on the walls of schools, Anganwadis, and many other public places and institutions.This gave awareness about the importance of water saving and the interventions of the projects to the public.
- The irrigation potential was also found to increase in certain watersheds due to the renovation of structures like ponds, side protection works along with flow regulating channels, etc.
- Delay in the timely availability of funds was a problem reported in this Block similar to other areas.

Summary of the Evaluation of Outcomes of PMSKY-WDC Projects

District: Malappuram Date of Visit: 15.06.2022

1. Project Details:

Project No: PMKSY batch V Project VII

Name of Block -Wandoor

Sanctioned Area (ha): 5820

Sanctioned Cost (Rs in lakh): 873

Name of Villages included in the project: Porur, Vellayur, chembaraseri, Pandikkad, Vettikettiri, Elankur

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	30	22.5	7.5 m increase in water table.
2	Average depth of water table in tube wells	m	155	150	Increase of 5m
3	Number of groundwater structures (dug wells + tube wells + hand pumps) rejuvenated	nos.	--	1300	Well recharge structures
4	Increase in Irrigation potential	ha	2500	3750	Increase in irrigation potential
5	Area of Wasteland brought under productive use (like agriculture, plantation, fodder, etc.)	ha	15	1.5	Nearly 13 ha of wasteland was 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	 3450 1500 15	 4050 1950 1.5	Increase in area under agriculture was observed
7	Area Under Agriculture Crop (i) Area under Kharif crop (ii) Area under rabi crop (iii) Area under double crop	ha	 2400	 3000	Increase in Kharif season crop was noticed

8	Cropping intensity	%	118	119	Increase by 1 %
9	Increase in Yield /ha of crops (i) rabi crop (ii) Kharif crop	qt/ha	 900	 1650	An average increase of 1.5 qt/ha of paddy
10	Area of horticulture crop	ha	750	1125	375 ha area increase in horticulture
11	Employment in agriculture related activities among beneficiaries	Man days	123750	189000	51220 mandays of employment generated under the project
12	Employment in non- agricultural sectors	Man days	65250	13050	
13	Fodder production	Qt/yr	11.25	18	Increase in fodder production
14	Fuelwood production	qt	--	--	Data not available
15	Number of milch cattle	nos	7200	9250	Increase in milch cattle
16	Milk production	Kl/yr	472	985	Doubling milk production
17	Duration of flow of water in streams (upto November/December/January/February….May)		Dec	Feb	Two months of prolonged flow
18	Improvement of drinking water facility		Feb	Mar	One month increase in water availability
19	No. of persons engaged in ancillary activities like fishery, poultry, rural craftsmanship	nos	4275	6192	
20	Number of children enrolled in schools in the project area	nos	6138	8145	Cent percent enrolment was observed
21	Reduction in migration from rural to urban area in the project area	nos	NA	NA	Reduction in migration during the project period
22	Annual mean household income	Rs	82000	94000	Rs.12000/- increase
23	Any other measurable indicator of impact assessment i) Total rainwater harvesting structures created-986 ii) Total rainwater harvesting structures rejuvenated-4 iii) Additional area brought under protective agriculture-24 ha iv) No. of farmers benefitted-5235				