SUCCESS STORY ON THWAILAROIT SMALL MULTI – PURPOSE RESERVOIR UNDER NABARD RIDF – XXVI

Brief of the Project
Name of the District -West Jaintia Hills
Name of Project- Thwailaroit RVP RIDF – XXVI
Name of structure: Small Multi-Purpose Reservoir
Location: Thwailaroit
Name of Office under which project executed-Divisional Soil &Water Conservation Officer Jowai Territorial Division, Jowai
Financial Year (FY)- 2022-23
Status of the Project- Completed
Project funding: R.I.D.F –XXVI NABARD
Cost of Construction (in lakhs)- *Rs. 8823025/- (Eighty eight Lakhs twenty three thousand twenty five) Only*
Number of Household benefitted: 14 Nos.
Benefitted area: 16 Ha.

1. Rural Infrastructure Development Fund (RIDF) NABARD Irrigation Project

The Rural Infrastructure Development Fund (RIDF), established by the National Bank for Agriculture and Rural Development (NABARD), has been a cornerstone in enhancing rural infrastructure across India. Among its various initiatives, the irrigation projects under RIDF have played a crucial role in promoting sustainable agriculture, improving water use efficiency, and enhancing the livelihoods of rural communities.

DESCRIPTION:

The Thwailaroit Small Multi – Purpose Reservoir is located at Wahiajer Village, West Jaintia Hills District and lies between *Latitude: N 25.55926°; Longitude: E 92.18499°* and falls under the jurisdiction of Thadlaskein C&RD Block at a distance of 22 km away from district headquarter Jowai. There are about 1004 households approximately in Wahiajer village. Ummulong is the major centre for all economic activities for all the inhabitants of Wahiajer village. Thwailaroit being perennial in nature can provide irrigation water to the agriculture field throughout the year.

Pre Project-Status:

The Small Multipurpose Reservoir (SMR) was implemented by the Office of Divisional Soil and Water Conservation Officer, Jowai Territorial Division during the FY of 2022-2023.The Soil and WaterConservation Department through NABARD-RIDF XXVI identified Wahiajier village due to:

- Before the construction of the reservoir the farmers depend only on rainfall for irrigation purposes reducing production and productivity of the crop in the process.
- Unavailability of sustained water sources means the farmers could not take up other livelihood activities such as livestock, pasture development, etc. meaning that the farmers would have to depend on external sources for their crop nutrient requirement, increasing their production cost in the process.
- The farmers could not take out double cropping due to unavailability of water for irrigation and nutrient deficiency of the soil, as the farmers could not provide irrigation water during dry season and prepare compost, due to unavailability of resources.
- Absence of a water harvesting structure means more run-off and this leads to more erosion and soil degradation.
- Absence of an embankment leads to more surface flow, minimising infiltration and percolation resulting to low ground water recharge.
- The farmers at present are not taking active part in catchment protection, however, construction of the reservoir will expose the farmers on the importance of it as training and awareness will be provided to them.
- The people in general are ignorant and mostly economically poor and are unaware about the economic benefits, a reservoir can bring to them in terms of tourism, fish

production, high crop yield and overall economic upliftment, etc. hoping with the completion of the project the people will become aware of these and replicate the activities in other potential location.

- Also considering the fact that Wahiajer village is one of the main hubs in the district and connected many villages of the district. Realising the potential other tourism development activities may be developed which will definitely boost the village and the adjoining villages economy thereby improving their standard way of living too.

The Soil and Water Conservation Department through NABARD-RIDF project had constructed a Small Multipurpose Reservoir in the village with an aim:

- To meet the ever-increasing demand for irrigation water,
- To protect stream bank erosion
- Eco-Tourism: Economic upliftment of the people through tourism activities
- Rain water Harvesting and reservoir for ground water recharge, etc.
- To raise ground water table by recharging ground water
- Fishery Development
- Conservation and sustainable management of natural resources and their uses
- Enhancement of agriculture productivity and production in a sustainable manner
- To reduce the ground water pollution.

Details of Structures Constructed at *Thwailaroit*, Wahiajer

Sl. No.	Items of Development * (only Major Components)	Physical Quantity/Target		Financial Details	
				Estimated Cost	Actual Expenditure
		Ha.	No.		
1.	HEADWORK	16.00	1	51,29,500	51,29,500
2.	IRRIGATION CANAL	1927 RM	1	21,66,100	21,66,100
3.	COMMAND AREA PROTECTION	1.00	1	8,35,700	8,35,700
4.	INFRASTRUCTURE DEVELOPMENT WORK (FOOTHPATH)	-	1	6,91,725	6,91,725
	GRAND TOTAL			**88,23,025**	**88,23,025**
		Say		**88,23,025**	**88,23,025**
5	**CATCHMENT AREA**	*2301 Ha (approx.)*			
6	**BENEFITTED AREA**	*16 Ha (approx.)*			
7	**COMMAND AREA**	*18 Ha (approx.)*			
8	**NUMBER OF BENEFITTED HOUSEHOLD**	*14 nos*			

Technology Interventions

The Small Multipurpose Reservoir aims at providing Irrigation Facility, Flood Control, conservation of Forests and Fisheries, Water Supply and Recreation. Multipurpose Reservoirs can harvest and store water throughout the year and cater to the multifarious needs of the populace such as irrigation, domestic requirement, fishery development, aesthetics and recreational purposes like tourism, parks, etc. thus providing employment to the youth besides mitigating the water stressed related issues of the locals. Cascading MRs of various sizes and designs can also be constructed along the Thwailaroit stream to meet the other water requirements, such as ground water recharge, fish farming etc.

The project cost ₹88.23025 Lakhs with a tremendous impact has been achieved in terms of Natural Resource Management by impounding massive water body only by a small headwork which highly commendable and is a blessing resource to the overall economic condition of the people such as increasing in agricultural productivity, gross irrigated area, and benefitted other farm related activities such as livestock farming, fish farming, etc. due to round the year availability of water stored in the reservoir. The SMR after construction has a water spread of

about 2.4 Ha where water conveyance irrigation canal of about 1927 running metre is connected to irrigate the downstream paddy field.

Cost-Benefit Analysis or Economic viability of the Project

With a total Budget of Rs *8823025* lakh was spent over the project. The Benefit-cost ratio of this project is 1.25:1 which shows the project is worth for investment

Benefits/Outcomes of project:

The impact of the Small Multipurpose Reservoir shows increase of 16 Ha of the agricultural land is brought under assured irrigation ensuring increase in production and productivity besides increasing the Gross command area. The farmers can go for Double cropping both Kharif as well as Rabi crop. The SMR after construction has a water spread of about 2.4 Ha which means that 2.4 Ha of water bodies is available for fish production. In addition to providing lifesaving irrigation to the families having agricultural and downstream of the project area resulting in improving overall socio-economic condition of the community, besides providing indirect benefit such as ground water recharge. Also, the RCC foothbridge constructed across Thwailaroit has benefitted various villages viz Mupliang, Myrjai, Kdohkule, Wahiajier located adjacent to the Project area as it becomes easily accessible to the nearby market ie Ummulong. Several water conservation efforts, employment generation activities are possible if various State Government Department and government agencies can come in consortium. Soil and water conservation Department with the Small Multipurpose Reservoir constructed through RIDF-NABARD had paved the way for other line department to work in tandem to achieve a shared aim.

PHOTOGRAPHS OF THWAILAROIT SMR

RCC Headwork

RCC Headwork

Command Area