

MID –TERM EVALUATION OF IWDP –III BATCH WATERSHEDS IN DHARMAPURI DISTRICT

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Abstract: Mid – term evaluation of IWDP- IIIrd batch watersheds were conducted in all the ten watershed villages spreaded over in Pappireddipatty block of Dharmapuri district to study the impact assessment of watershed activities implemented by DRDA. The evaluation was carried out in two phases; (i) Information were gathered from Project Implementing Agency, (PIA) and discussions were made with the members of the Watershed Committee and watershed Development Team (WDT) (ii) Field study was conducted to examine suitable site selection, appropriateness of layout and structures, channel treatment etc. and also to examine seedlings supplied to develop horticultural, bio -fuel and agro forestry plantations.

Interactions were also made with the beneficiaries of the IWDP III programme in order to study the impact of the programme. And also using simple random sampling technique, 100 beneficiaries were selected to study the community participation in implementing the watershed activities.

The participation of the people in planning the work was moderate (91.5%) to full participation (8.5%). Decision making plays a major role in planning the watershed activity which in turn helps to implement the work at right time. Regarding decision making 89.2% showed full participation. Appropriate Site selection is an important activity in watershed programme. Majority of the people in the watershed area (89.6%) showed moderate participation in site selection followed by full participation (9.4%). Regarding execution of the work 78.5per cent of the village community involved moderately and 21.5per cent showed full participation. And from the field study and interaction made with the beneficiaries of the watershed, it was observed that the watersheds are becoming greener and there is a great improvement in the moisture content of the watershed areas. It is noted that there is a good increase in the ground water level which helps the farmers to get their yield even in summer without any water scarcity. Moreover, soil erosion is controlled by the activities of IWDP such as stone walling and field bunding. Afforestation and pasture development is another activity implemented under this programme which made the watershed area ecologically balanced. In this regard, the watershed community also rates the impact of the programme as good.

Keywords: Watershed, Integrated Watershed Programme, Community participation.

Introduction

India is blessed with abundant land and water resources. Due to tremendous rise in population, the demand for these resources is continuously escalating. The demand for land

can be met by increasing the intensity of cultivation by bringing waste and fallow land under cultivation, which could be possible only by the efficient use of water.

More than 58 per cent of country's population depends on agriculture in which more than 70% of the farming community belongs to marginal and small farmers. They depend only on agriculture and that too subjected to high degree of risk and uncertainty provides only seasonal, irregular and uncertain income.

Indian agriculture is predominantly rainfed agriculture. Out of 143 million hectare of total cultivated area in the country, 101 million ha (i.e. nearly 70 per cent) area are rainfed and about 42 per cent of dry land areas contribute for total food grain production. Variation in amount and distribution of rainfall influence the crop production as well as socio-economic conditions of farmers. According to Society for Promotion of Wasteland Development (SPWD), out of 329m ha of total geographical area in India, 93.7 m ha (16.2%) falls under wasteland. In the face of rapid increase in population and consequent demand for food grains the reduction of productive capacity of the land due to deficient rainfall from southwest monsoon in the recent years and ground water depletion has become the major concern in India's development.

The phenomenon of ground water exploitation is much pronounced in India and Tamil Nadu. So sustainable development of wasteland can be attained through watershed approaches, afforestation and adopting suitable technologies when people participate in programmes. The conservation, development and efficient utilization of the natural resources namely land particularly wasteland and water for sustainable agriculture have assumed greater significance in the present context of their over exploitation.

Integrated Wasteland Development Programme (IWDP) is one of the major schemes launched and implemented to augment and conserve the land and water resources on the lines of watershed development approach. The Government of India and Government of Tamil Nadu have introduced this programme in all districts. In Dharmapuri district, the IWDP III is implementation in Pappireddipatti block which covers an area of 5000 ha to reclaim the vast stretch of wasteland and bring them under productive use through afforestation and other water resource development activity such as construction of check dams, percolation ponds, farm ponds, cattle pond, renovation of existing structures, vermicompost, supplying of tank silt, developing kitchen garden, agro forestry plantation horticulture plantation etc..

Objectives of IWDP Programme

- A.** To promote the economic development of the village community through optimum utilization of natural resources, employment generation and other income generating activities.
- B.** To encourage restoration of ecological balance in this village through simple, easy and affordable technological solutions and sustained community action.
- C.** To improve the socio–economic conditions of the resource poor and disadvantaged section of the people.
- D.** To set up the productivity of cultivable wasteland, marginal lands and irrigated lands by adopting suitable techniques.
- E.** To reduce the inequalities between marginal lands and irrigated lands.
- F.** To restore the life and capacity of irrigated structures below the watershed area by means of suitable runoff management gully control measures.
- G.** To promote the people to participate in various aspects from planning to project implementation through efficient PRA techniques. This will help them to gain technical know –how regarding dry land farming, rearing of animals, water management and various rural development schemes and develop them as a Self- Help Group by their active participation

Methodology

Mid–term evaluation of Integrated Wasteland Development Programme was conducted in all the ten watershed villages in Pappireddipatty block of Dharmapuri district in two phases; (i) Information were gathered from Project Implementing Agency, (PIA) and discussions were made with the members of the Watershed Committee and watershed Development Team (WDT) (ii) Field study was conducted to examine suitable site selection, appropriateness of layout and structures, channel treatment etc. and also seedlings supplied to develop horticultural, bio -fuel and agro forestry plantations.

Interactions were also made with the beneficiaries of the IWDP III programme in order to study the impact of the programme. And also using simple random sampling technique, 100 beneficiaries were selected to study the community participation in implementing the watershed activities.

Watershed Treatment Activities

Different watershed treatment activities were take-up to conserve soil and moisture content, to develop water resources and to increase green cover in the watershed area so as to retain the ecological balance. These activities are broadly classified under 5 heads i.e Renovation of existing water sources, water resources development and afforestation and pasture development, Soil and moisture conservation.

Watershed Treatment Activities

Watershed Activities	Watershed Development Structures
Renovation of existing water sources	Renovation of Kuttai / Village tank, Supply Channel
Water Resources Development	Gabion Structures, Cattle Pond, Farm Pond
	Percolation Pond
	Sunken Pond
	Thrashing Floor
	Check Dam
	Loose rock check dam
Afforestation and Pasture Development	Agro forestry
	Horticulture – Plantation
Soil and Moisture conservation	Field Bund
	Stone Wall
Others	Compost pit
	Kitchen garden
	Vermi compost

Findings and Discussion

People's participation is the key determinant in the success of the watershed development program. People's participation is not only critical during the implementation phase of watersheds but also ensures conservation and development of Common Property Resources (Dr. Prem Singh, Dr. H.C. Behera, and Ms. Aradhana Singh). People's involvement in watershed development programme plays a major role for its success. The action plan of watershed was prepared by the community during PRA exercise. Participation

of community in planning, decision making, execution of work and problem faced by community are presented in the following tables.

Table 1: Participation of Village Community in Planning

Sl. No.	Name of the Watersheds	Participation in percentage			Total
		Full Participation	Moderate Participation	No Participation	
1	Bommidi	10	90	-	100
2	Ajjampatty	10	90	-	100
3	Jangalahalli	5	95	-	100
4	Bothakadu	10	90	-	100
5	Kathiripuram	5	95	-	100
6	Buthanatham	5	95	-	100
7	Molaiyanur`	15`	85	`	100
8	Devarajapalayam	15	85	-	100
9	Menasi	5	95	-	100
10	Viluthupatty	5	95	-	100
	Average	8.5	91.5	-	100

Table 1 interprets that with regard to full participation by the village community in the planning the work, 15% was the maximum participation found in Molaiyanur, Devarajapalayam, 10% participation was found in Bommidi, Ajjampatty, Bothakadu and 5% participation was found in Jangalahalli, Kathiripuram, Buthanatham, Menasi, Viluthupatty. With regard to moderate participation the people from Jangalahalli, Kathiripuram, Buthanatham, Menasi, Viluthupatty were found to be maximum i.e 95%. Ninety percent participation was in Bommidi, Ajjampatty, Bothakadu and 85% of the people from Molaiyanur, Devarajapalayam. This shows that the people from all the watershed villages were actively participated in planning the programme since they were exposed to the different watershed activities implemented in different district.

Table 2: Participation of Village Community in Decision Making

Sl. No.	Name of the Watersheds	Participation in percentage			Total
		Full Participation	Moderate Participation	No Participation	
1	Bommidi	90	10	-	100
2	Ajjampatty	85	15	-	100
3	Jangalahalli	85	15	-	100
4	Bothakadu	90	10	-	100
5	kathiripuram	88	12	-	100
6	Buthanatham	88	12	-	100
7	Molaiyanur	95	5	-	100
8	Devarajapalayam	95	5	-	100
9	Menasi	88	12	-	100
10	Viluthupatty	88	12	-	100
	Average	89.2	10.8	-	100

Decision making plays an important role in implementing any developmental work. From Table 2 it was noted that 95% of the people in Molaiyanur, Devarajapalayam showed full participation in decision making process followed by 90% in Bommidi, Bothakadu and more than 80% of the people showed full participation in Ajjampatty, Jangalahalli, kathiripuram, Buthanatham, Menasi, Viluthupatty. On an average of ten per cent of the watershed community showed moderate participation in decision making process.

On the whole it shows that cent per cent of the village people were participated in decision making process viz, site selection, time duration to complete the work, execution of work, etc., which helped the PIA to implement the work at the proposed time.

Table 3: Participation of Village Community in Site Selection

Sl. No.	Name of the Watersheds	Participation in percentage			Total
		High Participation	Moderate Participation	Low Participation	
1	Bommidi	6	84	-	100
2	Ajjampatty	5	95	-	100

3	Jangalahalli	5	95	-	100
4	Bothakadu	10	90	-	100
5	Kathiripuram	8	92	-	100
6	Buthanatham	10	90	-	100
7	Molaiyanur	15	85	-	100
8	Devarajapalayam	15	85	-	100
9	Menasi	10	90	-	100
10	Viluthupatty	10	90	-	100
	Average	9.4	89.6	-	100

In implementing the Watershed Programme, proper site selection is essential which in turn will make the programme more successful. It is observed from the table 3 that 95% of the people from Ajjampatty, Jangalahalli showed moderate participation in site selection followed by 92% in Kathiripuram , 90% in Bothakadu, Buthanatham, Menasi, Viluthupatty and 84% , 85% were found in Bommidi and Molaiyanur, Devarajapalayam respectively. It shows that the watershed beneficiaries' from all the villages were keen in site selection since they were exposed to the benefit of the programme through exposure visit to other districts and also through different training programmes they attended.

Table 4: Participation of Village Community in Execution of work

Sl. No.	Name of the Watersheds	Participation in percentage			Total
		High Participation	Moderate Participation	Low Participation	
1	Bommidi	25	75	-	100
2	Ajjampatty	20	80	-	100
3	Jangalahalli	20	80	-	100
4	Bothakadu	25	75	-	100
5	Kathiripuram	15	85	-	100
6	Buthanatham	20	80	-	100
7	Molaiyanur	25	75	-	100
8	Devarajapalayam	25	75	-	100
9	Menasi	20	80	-	100
10	Viluthupatty	20	80	-	100
	Average	21.5	78.5	-	100

It is observed from table 4 that, 25% of the people from Bommidi, Bothakadu, Molaiyanur, Devarajapalayam showed high participation in execution of the work followed by 20% from Ajjampatty, Jangalahalli, Buthanatham, Menasi, Viluthupatty and 15% participation from Kathiripuram. With regard to moderate participation 80-85% of the people from Ajjampatty, Jangalahalli, Kathiripuram, Buthanatham, Menasi, Viluthupatty showed moderate participation and 75% was observed in Bommidi, Bothakadu, Molaiyanur, Devarajapalayam. It shows that due to the interest and involvement of the watershed beneficiaries', majority of the structures were properly executed with appropriate layout in stipulated time due.

Conclusion

The development and management of wastelands through Integrated Watershed Management with active participation of local community is a successful proposition (M. Madhu, Subhash Chand, Alok.K Sikka, K. Jeevarathanam, V. Selvi, D.V Singh, R. Ragupathy and P. Sundarambal). The benefits were the highest from the watersheds where people's participation was high. At majority of the places it was moderate and in few it was conspicuous by absence. The other impact indicators were also far ahead in watersheds having greater people's participation (Dr. Prem Singh, Dr. H. C. Behera and Ms. Aradhana Singh).

The participation of the people in planning the work was moderate (91.5%) to full participation (i.e 8.5%). This shows that the people from all the watershed villages were actively participated in planning the programme since they were exposed to the different watershed activities implemented in different district. Decision making plays a major role in planning the watershed activity which in turn helps to implement the work at right time. Regarding decision making 89.2% showed full participation. Appropriate Site selection is an important activity in watershed programme. Majority of the people in the watershed area (89.6%) showed moderate participation in site selection followed by full participation. It shows that the watershed beneficiaries' from all the villages were keen in site selection since they were exposed to the benefit of the programme through exposure visit to other districts and also through different training programmes they attended. 78.5per cent of the village community involved moderately and 21.5per cent showed full participation in executing the work. It shows that due to the interest and involvement of the watershed beneficiaries', majority of the structures were properly executed with appropriate layout in stipulated time.

Finally, this study shows that the importance of the watershed programme was recognized by the villagers through the awareness created by PIA and WDT. Awareness about different activities under the watershed programme was created through meetings, display boards, wall paintings etc., It is also inferred that the watersheds are becoming greener and there is a great improvement in the moisture content of the watershed areas and it also shows that there is a good increase in the ground water level which helped the farmers to get their yield even in summer without any water scarcity. It is in line with the studies of (M. Madhu, Subhash Chand, Alok. K Sikka, K. Jeevarathanam, V. Selvi, D.V Singh, R. Ragupathy and P. Sundarambal) who revealed that the watershed interventions helped in increased ground water table perennality of water in the wells and recuperation of water yield that ultimately resulted in increased area under irrigation and crop diversification. Soil erosion was minimized to a large extent by stone walling and field bunding. It is observed from Dr. Prem Singh, Dr. H.C. Behera and Mr. Aradhana Singh report that findings in Tamil Nadu revealed that in around 73% of the watershed the soil erosion has reduced between 25& 50% whereas in 27% it is beyond 50%. Afforestation and pasture development is another activity implemented under this programme which made the watershed area ecologically balanced. Therefore it was observed that the Integrated Wasteland Development programme implemented in Pappiredipatti block is a great boon to the farming community.

Reference

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- [2] M. Madhu, Subhash Chand, Alok. K Sikka, K. Jeevarathanam, V. Selvi, D.V. Singh, R. Ragupathy and P. Sundarambal 2004. Impact of IWDP Salaiyur Watershed in Coimbatore District, Tamil Nadu. Paper Presented in a national seminar on Impact Assessment of Watershed Development Conceptual and Methodological Issues, 34-26, November 2004.