

Original Research Article

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## Community Participation in Entry Point Activities in Watershed Development in Ananthapur District - A Sustainable Approach

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### ABSTRACT

The thematic report is focused on the importance and role of community in implementation of Entry Point Activities at the watershed project area. Definition of entry point activities as per watershed Programme is “The project initiation activities that make the village community feel the entry of a watershed project in the village. It helps the confidence building among the village community”. The research paper is covered for Batch-IV watershed projects of Anantapur district.

### Introduction

IWMP program has been initiated in Ananthapur during 2012-2013. During the early days of the preparatory phase, the project areas communities have a wider population and have used all the activities carried out through collective efforts. The facilities acquired by the community members under Entry Point Activities will be comprised of cattle troughs, school furniture, solar street lights and pipe extensions. The total livestock population of this village is around 500 such as goats, sheep, buffaloes, and cows (Chandrappagari, *et al.*, 2012).

The main objectives of thematic study are:

Comprehending of importance of the importance of

community participation in Entry Point Activities to initiate village watershed activities and also consider the preferences of the community and goals for village growth

### Materials and Methods

The study is emphasized on the various works taken up under the Entry Point Activities in watershed villages and the relevant data collected from the District Water Management Agency (DWMA), Anantapur district and secondary data collected through the relevant case studies in the project area. The data tabulated and analyzed project wise, gram panchayat wise, activity wise and EPA wise. The study selected for Ananthapur- Batch-IV projects have been covered.

## **Ananthapur District profile**

The Anantapur district lies in the South-West corner of the state of Andhra Pradesh, located between latitudes 13°41' to 15°14'N and longitudes 76°47' to 78°26'E. Its elevation towards south is about 2200 ft with gradual decline to about 1000 ft at Gooty in the north and 900 ft at Tadipatri in the northeast. The total area of the district is 19, 13,586 ha with about 1200 villages consisting 63 mandals. The district receives the lowest quantum of rainfall (550mm) among the districts of Andhra Pradesh which is second lowest in India. The maximum temperature varies through the year between 25-42°C. The total population as per 2011 census is 4,081,148 persons; male population consisting of 2,064,495 and female population is 2,016,653. The population density of the district is about 213 persons per sq.km. The literacy level is 67.53% as per 2011 census.

The literacy among males is higher at 70.02% as compared to that among females (53.97%). The SC population accounted for about 14.29% of total population of the district, while the ST population accounted for just 3.78% of total population. The total workers (main and marginal) are estimated at 2,036,166 persons and accounted for 49.89% of total population. Agriculture laborers accounted for maximum (43.20%) of total workers (879,573) whereas cultivators accounted for about 20.30%. Rural population (2,935,437 persons) accounted for 71.92% of total population and the balance 28.07% accounting for urban population. The age distribution of total population indicated that the population of children in the age group of 0-6 years account for 10.93% of total population.

The entire district is declared as hot arid due to high temperature, low, erratic and unevenly distributed rainfall resulting in moisture stress. Trends of desertification are also seen in parts of the district. Groundwater levels are alarmingly low and receding fast. Further degeneration of existing marginal and degraded forests is happening in the last four decades and acute scarcity of drinking water, fodder and fuel is occurring in every alternate year which is

a serious concern.

All these factors are creating tremendous concern and awareness regarding the danger that is looming large among the masses of the district. It is, therefore, essential to develop these areas by adopting appropriate soil and water conservation measures on watershed basis for reducing environmental impacts of droughts.

Due to large number of water conservation and water harvesting structures taken up in the district during 1993-95, 1000 m.cum of additional groundwater recharge was made possible which is very encouraging and forms a base for evolving a comprehensive watershed development.

## **Initiation of Watershed Project in Ananthapur District**

The GoAP being pioneer in the country in conserving natural resources by adopting Watershed approach has created a separate Commission rate for Rural Development for carrying out Programme across the entire state in the coming years. All the criteria proposed by the DoLR, GoI have been used for prioritizing the Watershed. Based on this, more critical one's as to be treated on priority (Mishra, *et al.*, 2018).

Further, taking into priority ranking given by APSRAC denotes that SC, ST population, percentage of literacy, percentage of agricultural labour, status of groundwater, scarcity of drinking water, quality of drinking water, availability of DWCRAs, contiguity with existing watersheds, livestock population, community mobilization etc.

About 3,600 watersheds were prioritized into very high, high, medium, low and very low categories across the state. In this view Anantapur district implemented 86 watershed projects since 2009- 10.

## **Implementation of Watershed Project at Grassroot Level in Ananthapur**

The major activities of the Watershed Development

projects were carried out in three phases comprised as: Preparatory phase, Works phase and Consolidation phase. The project duration could be in the range of four to seven years.

In preparatory phase, Entry Point Activities of community-oriented works such as cattle troughs, school furniture, water purification plants, solar street plants, tent house material are taken up as per the need in micro watershed villages during the first year to bring watershed concepts into community using 4% project funds.

The major objective of this phase is to build appropriate mechanisms for adoption of participatory approach and empowerment of local institutions (WC, SHG, and UG). WDT will assume a facilitating role during this phase. In this phase, the main activities consist:

In the preparatory process, Entry Point activities such as community-oriented works like cattle troughs, solar street lights, water purification plants, school furniture, pipe lines were taken up during the first year in micro watershed villages to use 4 percent project funding to introduce watershed concepts into the villages.

Involvement of primary stakeholders is at the centre of planning, budgeting, implementation, and management of watershed projects. Community organizations are closely associated with and accountable to Gram Sabhas in project activities.

The community plays a key role in defining and organizing aspects of all the required works for their village, their position in the Entry Point Activities which is evident in implementation of works that were taken up. In Grama Sabha, all the entry point activities were identified through consultation with the village's public and they ensure that all categories of communities have participated such as SC, ST, and women's groups and so on. Taking up entry point activities to establish credibility of the Watershed Development Team (WDT) and create a rapport with the village community. The entry point activities, *inter-alia*, will include:

Works based on urgent needs of the local communities such as revival of common natural resources, drinking water, development of local energy potential, augmenting ground water potential etc.

Repair, restoration and upgradation of existing common property assets and structures (such as village tanks) may be undertaken to obtain optimum and sustained benefits from previous public investments and traditional water harvesting structures.

Productivity enhancement of existing farming systems could also be an activity that helps in community mobilization and building rapport.

### **Role of Community Participation in Entry Point Activities**

The Grama Sabha and Watershed committee facilitated the initiation of EPA activities throughout the process. The EPA activities have been identified based on the need and priority in the villages which is used for the larger community's interest.

Under the new guidelines of IWMP, nearly 4% of the total watershed budget is earmarked for Entry point activities (EPA) to be spent for the needs of the watershed/village beneficiaries in the first year of preparatory phase and to develop their confidence in implementing all watershed activities planned under watershed development project.

The EPA is envisaged to build a rapport between Project Implementing Agency (PIA) and rural people before initiating watershed programs. Usually, entry point intervention/activity is identified through PRA and Grama Sabha meetings. It involves building rapport with community, strengthening and sustaining it throughout the program and thereafter. In reality, it involves a lot of time and resources of project staff and could determine the success or failure of program. A carefully laid out EPA could address community's aspiration and capitalize on it by ensuring larger

peoples' participation in all watershed activities.

### **Identification of Entry Point Activities**

Generally, EPAs' were identified through Grama Sabha and watershed stakeholders meet to identify the immediate needs of the community instead of individual needs. Moreover, EPAs' are so chosen and done as to develop the rapport between the project implementing agency (PIA) and the rural people before initiating watershed programs. While deciding the activities of EPA following criteria was considered for successful implementation of the Batch-IV projects.

### **Study Area**

Batch-IV projects of Ananthapur district which covered 65 micro watersheds. In Anantapur District, 16 Projects were initiated and completed under batch-IV projects. The details of these projects along with details of micro-watersheds and habitations covered under IWMP Batch-IV in Ananthapur are presented in Table 2 The 16 projects located in Ananthapur district are located in 16 mandals and sub divided into 65 micro-watersheds. These micro-watersheds spread over 166 habitations in the district and are having 28,315 households.

### **Entry Point Activities**

The batch-IV was initiated in 2012-13, and the entry point activity is one of the important milestones of the Programme that has helped increase community trust in the program's ability to sustain the Watershed Programme. At this point, the community has decided on various components based on their necessity. In these scenarios, in Ananthapur district, 65 micro watersheds in 16 projects have carried various activities such as solar lights, cattle troughs, and extension of pipe line for

drinking water, fertility camp, health camps, and RO plants, supply of services, tailoring center, and tent house (table 3).

### **Results and Discussion**

#### **Cattle Troughs**

The village community was given importance to address the needs of the livestock. Despite its importance, livestock are widely neglected in agricultural water planning and management, in particular the water requirements for fodder crops. Drinking water for livestock is often provided in rural domestic supply. In many areas in the district, animals have to travel for long distance, especially in dry areas during summer season.

In the district like Anantapur it's very difficult to get sufficient water during the grazing of animals. The watershed committee and community have been decided to have the water sources to the animals such as cows, buffalos, goat and sheep.

The construction of animal's water troughs provided enough water. The water troughs generally constructed in the villages on the roadside and also at animal grazing areas.

#### **Solar Street Lights**

Solar streetlights have received tremendous response and it is major achievement in the selected areas. With this ultimate aim of enhancing rural communities' living standards by linking them to renewable energy, the watershed program has taken on a novel initiative by installing solar streetlights and delivering efficient and effective solar-powered lighting up villages. The village community effectively keeps the solar streetlights repaired and maintained regularly.

**Table.1** Details of Projects Covered under IWMP Batch-IV in Ananthapur District

Sl.No.	Project	Mandal	MWS wise Area (in Ha)	No. of MWS	No. of Habitations	No. of House Holds
1	Chandana	Yadiki	4,700	6	12	2,439
2	Cherlopalli	Putlur	4,311	5	6	1,051
3	Ganginepalli	C.K.Palli	3,209	3	6	1,300
4	Hemavathi	Amarapuram	4,616	4	18	3,002
5	Kokkanti	Tanakallu	2,927	3	17	852
6	Kotanka	Garladinne	4,227	2	2	1,836
7	Mallapuram	Rayadurg	4,017	5	7	1,992
8	Muthuvakuntla	Kanaganapalli	4,251	2	5	1,145
9	Muthyalacheruvu	Kadiri	4,733	3	22	1,009
10	P.Yaleru	Atmakur	3,872	3	6	2,491
11	Pillalapalli	Brahmasamudrum	4,200	5	8	1,665
12	Raketla	Uravakonda	4,794	4	5	1,992
13	Ramagiri	Pamidi	4,705	6	9	2,160
14	Sangala	Bathalpalli	4,447	4	13	1,223
15	Talamarla	Kothacheruvu	3,963	5	13	2,012
16	Vonavolu	Gorantla	4,828	5	17	2,146
	<b>Total</b>		<b>67,800</b>	<b>65</b>	<b>166</b>	<b>28,315</b>

**Table.2** Entry Point Activities of Batch-IV Projects in Ananthapur District

Sl. No	Category	Completed			
		No of works	Wage in lakhs	Material in Lakhs	total cost in Lakhs
1	Cattle/goat / sheep trough	216	0.14	68.46	68.6
2	Extension of pipe line for drinking water	32	0	26.8	26.8
3	Fertility camp	82	0	19.7	19.7
4	Health camps	139	0.13	62.73	62.86
5	RO plants	58	0	105.21	105.21
6	School related like furniture, shed, building repair, lab	112	0	78.72	78.72
7	Single works	215	0.08	128.17	128.25
8	Solar street light	259	0.13	124.67	124.79
9	Supply of services	38	0	29.39	29.39
10	Tailoring center	4	0	2.61	2.61
11	Tent house	104	0.08	126.56	126.64
	<b>Grand total</b>	<b>709</b>	<b>0.55</b>	<b>773.01</b>	<b>773.56</b>

**Table.3** Cattle troughs for animals drinking water

<b>Project</b>	<b>Ramagiri</b>
<b>MWS</b>	Kandlapalle
<b>Batch</b>	Batch-IV
<b>Work</b>	Cattle Trough
<b>Work ID</b>	126121216017040084
<b>Expenditure</b>	Rs. 34,105

**Fig.1** Cattle troughs for drinking water of animals in Kandlapalle



### **School Furniture and Sports Material to the Children**

The community has realized the importance of educating the children and their facilities, and has provided through EPA school furniture such as school benches, school computer tables, library furniture, etc., all of which shows is the shift of the rural community towards school facilities and infrastructure that assists children's educational success.

Also, the school teachers and the department of education are tremendously happy to have contributions from the watershed program to the school which would be useful for improvement of the education level. School children also improved their attitude towards the village's watershed management and holistic overall growth.

### **RO Water Plants**

Safe drinking water is a very common problem in drought prone areas and lack of sufficient safe drinking water in the watershed project region, resulted frequent occurrence of disease among rural poor people, and spending a lot of money on hospitals, due to polluted water use, etc.

The village community has strongly decided to have a safe drinking water facility through EPA of watershed program through RO plants and water plants, etc. The RO water plants has been maintained in the watershed villages very well by the community, thus saved money spent towards purchase of water as well as time which was allocating to bring water from for off place. Nearly 4% of the budget allocated for innovative entry point activities (EPA) under the IWMP guidelines

which were used effectively to meet the needs of the watershed community and to build a good relationship for the smooth implementation of the watershed, and this effort was successful.

The villagers wisely made use of the project EPA by getting widely acceptable material like, cattle troughs, school furniture, solar streetlights and tent houses. Among these cattle troughs find very useful in villages for drinking water for almost 100 animals daily. In the village, the solar streetlights produced remarkable success, as well as school furniture found excellent usefulness.

Majority of the EPA programs have become very beneficial to the general community and managed primarily by the community in the watershed villages. The EPA played a vital role in developing the relationship between project implementation agency (PIA) and rural community before setting up watershed projects and community-selected EPA initiatives as an example for the sustainable approach in the watershed program.

### **Case studies**

The village communities in the project areas have given importance to address the needs of the livestock. Despite its importance, livestock are widely neglected in agricultural water planning and management in particular the water requirements for fodder crops. Livestock drinking is often provided in rural domestic supply. In many areas animals used to travel long distance for water and fodder especially in dry areas during summer season. In the districts like Ananthapuramu, it's very difficult to get sufficient water during grazing of animals.

IWMP program has been initiated in Kandlapalle MWS during 2012-2013. During the early days of the preparatory phase, the project areas communities have a wider population and have used all the activities carried out through collective efforts. The facilities acquired by the community members under EPA will be comprised of cattle troughs, school

furniture, solar street lights and pipe extensions. The total livestock population of this village is around 500 such as goats, sheep, buffaloes, and cows.

The community faced a shortage of drinking water for the animals. During the Entry Point Activities, the entire community came forward and decided to have cattle troughs for the animals. These cattle troughs are very useful in villages and are used daily for drinking water for livestock. The total expenditure incurred for cattle trough is Rs. 34,105.

Earlier, the entire cattle population used to travel long distances to get drinking water, and there are no drinking water facilities in the village. With this initiative, all villagers feel happy to feed their animals with water in the village itself. They expressed their gratitude to the watershed team and government officials.

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