

## WATERSHED MANAGEMENT RELATED TO ECONOMIC ASPECTS IN THE RURAL AREA OF DHANWAR, BALRAMPUR, C.G.

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### ABSTRACT

*In fact land, water, forests, people and cattle are the basic resources of a nation. Productive land is the source of human sustenance and security. Economic stability and a wise use of land are inseparable. Watershed management, therefore, involves not only regeneration of the environment, but also the management of needs of the human community within that particular region in such a way that their demands are in balance with the availability of resources like land, water and vegetation. Watershed management is not merely anti-erosional and anti-runoff approach but also a comprehensive, integrated approach of land and water resources' management. It would ultimately depend on the people who are living in that particular jurisdiction.*

*Due the intervention of the watershed programme, the standard of life of the common people has increased to a great extent. Double and multiple cropping system has emerged in the recent years. Consequently the purchasing power of the common people has gone up. Along with this the availability of employment at the respective villages has increased seasonably. In order to obtain maximum benefits from watershed development programme it is imperative that the natural resources, soil and water, forest and greenery, common resources and facilities be properly utilized and protected. It then, will help to improve and maximize the productivity leading to the overall increase in the standard of life of people.*

**KEY-WORDS:** Watershed Management, Anti-erosional, Anti-runoff, Degradation, Poverty, Unemployment, Droughts, Agricultural Production.

### INTRODUCTION

In years gone by, no human mind gave a serious thought to Watershed Management. Today the dry land is crying to quench its thirst. The land is struggling to remain clubbed together against the swift current of the rain water. The ill-effects of the felling of trees are gradually being felt. The rain and running water wants to be stopped, gathered and utilized to the fullest. The human being, so called the most intelligent and the master of nature,

stands still and stares at the negative happenings, thus revealing himself to be unintelligent. Nature is challenging the human mind to be utilized positively, productively and profitably.

The basic resources of a nation are land, water, forests, people and cattle. Productive land is the source of human sustenance and security. Economic stability and a wise use of land are inseparable. Degradation of land due to severe land erosion has reached a menacing proportion in our country. The forest destruction, unscientific mining activities, uncontrolled grazing of cattle and the traditional forest fires have greatly accelerated the process of erosion, and the fertile top soil is mercilessly washed out to the sea. Water, no doubt, is essential for human survival, yet floods are responsible for increasing loss of life and destruction of vegetation and the natural resources. Drought is caused by the absence of water, lack of monsoon. Whenever it occurs the eyes of human beings are raised up towards the sky. The living and non-living beings are terribly affected by this acute problem.

Though India as a whole has been putting efforts in achieving the self-sufficiency in food production, more than 400 million of its population are still struggling to get one square meal a day. Most of India's population cannot afford to buy enough of this bountiful food production. The obvious reasons may be twofold –

- The common people cannot find year-round employment.
- Even if some of them are employed year-round, the income they earn is at the subsistence level.

Thus the problem is not only the chronic unemployment but also the unstable and inadequate income flows. About 80% of the population lives in the rural areas. Out of this, 70% odd population is involved in the agriculture sector. This is the sector where most of the problems regarding inadequacy and under remunerative employment are found. To add fuel to this set of problems, there are some unavoidable ones like:

- Frequent failures of monsoon
- Recurrent droughts
- Increased and increasing population
- Approximately 40% of India's total land is estimated to be wasteland
- Almost 80% of the arable land is dependent upon rainfall for agricultural production, while rains are seasonal, scanty and erratic.

Enumeration of the above endless problems seeks for a solution, so that to some extent these problems can be mitigated.

## **WHY WATERSHED MANAGEMENT**

The effects of environmental degradation are all too well known. Activities of human beings like deforestation, unsuitable and wrong farming techniques, livestock over-grazing and faulty land use lead to the destruction of plants' and trees' covers, exposing the earth to the natural forces like heavy rains, direct sunshine, high winds and drought. This leads to other environmental problems like soil erosion, floods or water scarcity. Agricultural yield is lowered and this results in a decline in the income levels of the community and often to poverty and famine, leading eventually to migration from rural to urban areas.

Watershed management, therefore, involves not only regeneration of the environment, but also the management of needs of the human community within that particular region in such a way that their demands are in balance

with the availability of resources like land, water and vegetation. This equilibrium between need and availability will certainly lead to a better and increased resistance to drought, increase in the supply of food, agricultural produce, water, fuel, fodder, timber and as a result, an improved standard of living and reduced or zero rate of poverty-induced migration.

## PEOPLE'S INVOLVEMENT

However, to achieve the balance or equilibrium among all the factors, it is very essential that there must be a close and strong relationship between the environment and the human community, living within that region and which depends on it for food, water etc. when the economic condition of a community deteriorates, it leads to over-exploitation and degradation of natural resources. People for whom agriculture is a low return, risky gamble, expand their cattle herds for financial security. This leads to over-grazing and in turn to soil deterioration and erosion, especially in ecologically sensitive regions.

## A CASE OF DHANWAR AREA, DISTRICT, SURGUJA, CHHATTISGARH

## METHODOLOGY

Taking all the surveyed facts and figures, into consideration, this present study outlines the following objectives –

### OBJECTIVES

- To collect random information and analyse them as per the situation of the area.
- To compare the living status of before and after the programme.
- To analyse the information and the findings.
- To suggest and recommend for future action plan.

### HYPOTHESIS

On the basis of the limited studies conducted on this line and in order to substantiate the objectives outlined above the following hypotheses were framed to test their validity.

- The participatory approach brings a difference in the impact of developmental program in terms of physical, social and economic growth among the people and in the target area.
- The alternative sources of earning generated through this program helps in bringing down the migration rate.
- There is a significance difference in the life style of the people through the implementation of the programme.

### RESEARCH DESIGN

The activities conducted in the study area, especially in the context of watershed development programme, still leave many questions unanswered. It is with this consideration and to gain more insights in the subjects, the present study is based on a Descriptive Design.

### SAMPLING

While following a purposive stratified random sampling procedure the samples were drawn from 5 villages to represent the Universe i.e. Dhanwar area.

### PRIMARY SOURCES

- **Focused Group Discussion (FGD)**

The collection of data was made from the community with the help of Focused Group Discussion (FGD). It was aimed at collecting information from 15-20 people sitting together and sharing their opinions about the status of the villages before and after the watershed programme. The result of the sharing was captured by the author randomly for the impact study of this programme.

- **Observation**

While collecting the data through the above methods, non-participant observation method was used to get more insights and to supplement the above data. It was more helpful during the site visit to understand the physical works by the Project Implementation Agency.

### SECONDARY SOURCES

The data from the secondary sources were collected on the concept and context of the project, role of PIA and the implementation of the project activities. Help was taken from the published books and journals, unpublished articles and documents. The records of the concerned Government Department at the District Level were also referred for the above purpose.

### Limitation of the Study

The present piece of research has certain limitations which the author feels free to share with:

- The non-availability of the main people of the villages sometimes prolonged the process of data collection.
- During the course of FGD the dominance of the elite members was not allowing others to come forward and revealing the information. However, care was taken to ensure the participation of those people with a very low profile by structuring the discussion and inviting such members view.
- Due to the lack of a proper documentation by the local watershed committee, it was difficult to get a detailed picture presented in a systematic way. In most cases, the researcher had to compile and give it a shape for the study purpose.

### A COMPARATIVE STATUS OF THE PEOPLE ECONOMIC LIFE

Sn.	BEFORE WATERSHED MANAGEMENT	AFTER WATERSHED MANAGEMENT
1.	The villagers were unemployed 4-8 months round the year.They either spent half the	The first and foremost impact is the increase in employment opportunities. People have experienced it very much after the launching of the programme.

	year in the forest or worked as bonded labourers	
2.	Migration was an usual trend in search of work.	Due to the availability of employment in the area, migration to a great extent has been stopped. People got an opportunity to work in their own fields.
3.	The villagers had been deprived of their just wages.	The villagers have experienced a sense of satisfaction in terms of getting just wages, which they never felt while “selling” their labour to the landlords.
4.	The occupied land was not cultivable, hence people did not take much interest in cultivation.	The watershed programme proved to be a boon to the tribals in terms of earning livelihood. People started to get good crops (double) due to the land leveling. People were found to be interested in the agricultural activities.
5.	There was lack of purchasing power.	The purchasing power increased, due to which people started realizing their dignity and self-respect.
6.	The wages earned from the landlords were a drop in the ocean.	The wages/remunerations earned from land leveling, construction of ponds, wells, community centres etc. now are enough and sufficient in terms of fulfilling their minimum basic needs, using for productive purposes and saving for the future.
7	The term ‘SAVING’ was alien to the people.	The habit of saving got momentum in the life of the people.
8.	Land-grab attitude was prevalent among the landlords, due to the absence of legal documents and pattas.	People have become aware of their land problems. Most of the villagers have obtained their legal documents.

### SOCIAL & COMMUNITY LIFE

Sn.	BEFORE WATERSHED MANAGEMENT	AFTER WATERSHED MANAGEMENT
1.	People were leading an individualistic way of life. There was lack of unity among people.	Due to watershed programme villagers cultivated a sense of strong community life. Unity among the villagers could be experienced while working under this programme.
2.	Mentally, the people were always in the state of fear. Freedom of mind was a missing element.	After the programme, people have come out of the fearing state of mind. They can express their opinions freely.
3.	Due to the malnutrition, there was a poor health condition of the rural people.	The health condition in general has improved a lot. The people have been instructed to use the hot water for drinking through health education. Awareness on sanitation has been given and people have responded to it positively. People in general have started taking the nutritional food.
4.	The use of alcoholism (mahua) was very prevalent among the villagers	The awareness on the harming elements and negative consequences was created among the people. It has

	and specially among the tribals.	brought unity and cooperation among the intra and inter village units.
5.	Earlier there was a closed and strange community.	The tribals and other villagers and very specially the women have come forward. It is no more a closed and strange community, but an open one. The community has been opened to various Government and non-government programmes. The community has become a receptive one, welcoming one, where one can feel at home and at ease.

### POSITIVE FINDINGS

- The standard of life of the common people under this programme has increased to a great extent.
- Double and multiple cropping system has emerged in the recent years. Consequently the purchasing power of the common people has gone up. Along with this the availability of employment at the respective villages has increased seasonably.
- A significant people’s participation has been increased in the watershed development activities after the intervention of watershed programme in the rural areas.
- The common people have broadly understood the procedures of development planning and simple techniques for implementing the watershed development activities.
- People have been entrusted the responsibilities with regard to the activities and accounts keeping.
- Watershed Programme has provided a platform for women, where they could recognize their dignity and potentialities to do something better for the development.
- The women in the villages were knit together in the form of Self Help Groups and Mahila Mandals. A few IGP programmes were carried out by them.
- The Income Generation Programmes like Fisheries, Goatry, Poultry, Mushroom Cultivation, Amchur preparation, collection and marketing of Minor Forest Produce (Mahua, Amla) have given confidence to the women groups.
- The migration (plight from the rural to urban areas) has been stopped to a great extent, because of the availability of work in the villages.
- People specially farmers have cultivated a sense of love, belongingness and ownership towards their own land and properties.
- People seem to be very happy and satisfied with the progress of and benefits from the Watershed Development Programme.

### NATURAL ENVIRONMENT

- Increase in ground water table and availability of water has been experienced with the seasons.
- In the rainy season the water does not flow swiftly but slowly so as to penetrate in the ground.

- Priority to the use of local design in constructing and maintaining water harvest structures was given under the programme. It was proved that there was less expenses in such constructions. Also the care and maintenance comparatively were paid attention to.
- The forest area has increased comparatively as the intervention of watershed development programme.
- The timber, fuel and fruit trees have been increased.
- Plantation of Amla and Mango, the fruit trees has been given more importance while bamboo, teak, eucalyptus, babool etc. were planted for the purpose of timber and fuel. This paved a way for the set up of various Non Timber Forest Produce (NTFP) based industries.
- The soil erosion has been reduced to a great extent. The moisture retained in the field for more time.
- Barren land comes under cultivation. Pulses, Oil Seeds were started to be cultivated on the bunds.
- Pasture land has been regenerated.

## NEGATIVE FINDINGS

- An observation was made that the people's participation was nominal. People were reluctant to take part in the activities. They were in the receiving end rather than giving.
- There was irregularity in the cash flow from the Government which hindered in the smooth running of the watershed development activities.
- It was observed that the chief players (Watershed committee) in the villages were not properly oriented and motivated for the proper implementation of the programmes.
- Faulty water harvest structures (especially ponds) were constituted at inappropriate sites with wrong designs which were found dried up during the summer season.
- Since people were not properly oriented towards the ownership, the plantation and pastureland development did not come up to the expectation.
- Unwanted politics crept in as soon as the watershed programme was launched. The influential people in the area tried to get hold of the whole programme.

## SUGGESTIONS

From the above facts and situations the author believes that watershed development programme can be the real solution to the rural community problems. The problems or the negative findings can be solved to a great extent if the watershed development programme is implemented effectively and managed efficiently. For this the author's view is to pay attention to

- Organize, strengthen and mobilize the community.
- Make the people aware of their shares and active participation in the programme along with responsibility.

- Orient and motivate the people to utilize the natural resources to the maximum extent possible.
- Impart people with the latest and modern appropriate techniques of cultivation.
- Have priority for the low cost options in construction of the watershed related infrastructures.
- Have a positive cooperation and support on the part of the government.

## CONCLUSIONS

The success of this programme fully depends on the efficiency of the management and the effectiveness of the people's participation. In fact, watershed management is not merely anti-erosional and anti-runoff approach but also a comprehensive, integrated approach of land and water resources' management. In order to obtain maximum benefits from watershed development programme it is imperative that the natural resources, soil and water, forest and greenery, common resources and facilities be properly utilized and protected. It then, will help to improve and maximize the productivity. It would ultimately depend on the people who are living in that particular jurisdiction. They have to be knit together through various groups such as Watershed Committee, Gram Sabhas, Kisan Dal, Youth Groups, Self-Help Groups etc. The sustainability of the fruit from watershed development programme for ever, will be possible if it will be supported by the installation of the agro-based small scale industries, having primary processing units and linkages with market working with the like-minded people.

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