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# TITLE: WATERSHED DEVELOPMENT, TODAY'S NEED

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***Abstract***

*Watershed is a geophysical science procedure which gives food, provide life support to the specially rural people. To swell ground water level which is very important for our upcoming generation. Our paper elaborate how to manage effectively to increase ground level without soil erosion. not only used for domestic and industrial purpose but also for agricultural used . Watershed development is a process of conservation, regeneration and the judicious use of all the natural resources available in the watershed area . The method of watershed development can help to humans in every aspects of life and economic as well. since, it maintains the ecological balance between the environment and human beings . One such method is watershed development, watershed is the area where the rain water is collected and drains through gullies, nallas to a single outlets .It is the processes of creating the plan and authorising by government conduct the programs and projects related to watershed development to enhance and sustain the life of plants ,animal and human beings and also the recharging the ground water table. The main objectives development is to slow down the moment of water to prevent the soil erosion.*

***Index Terms: Geophysical, Regeneration, Judicious, Ecological balance.***

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## 1.INTRODUCTION

**Watershed development is a process of creating and to arrange plans ,programs and projects to sustain and increase watershed function that affect the herb ,animals communities within a watershed boundary. Watershed development is not so much about be in charge of natural resources, but about govern human activity as it hit these resources. Human pursuit includes operation by governments ,municipalities , industries and landholders watershed management must be a symbiotic efforts. From some last years , due to unbalance monsoon, people are looking towards the underground water as different sources without regarding to it's recharge resulting in growing of ground water table 100-200m below the ground surface.**

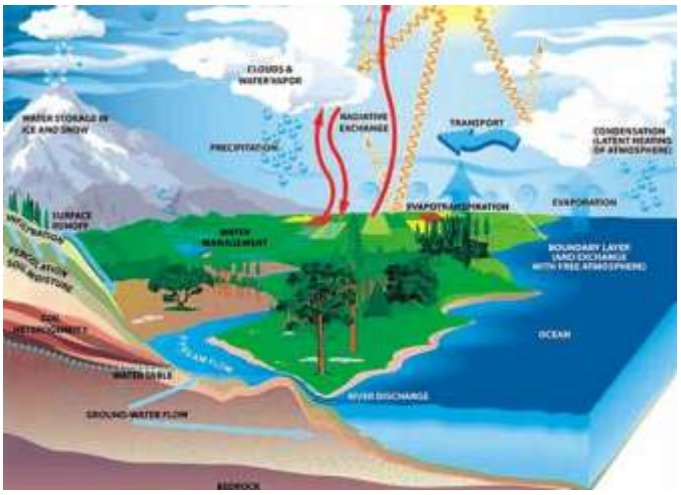


**Fig -1 Watershed Management Process**

**Why watershed spread?**

**Man and his environment are interconnected to each other . The changes in environment directly affect the lives of people depending on it. A degraded environment means a degraded quality of life of people. Environmental abasement can be approach effectively through holistic enlargement of watershed development it provides a natural geo-hydrological measurement for designing any developmental interprise.**

**1.1 Soil erosion**

**Ii is define as the detachment and movement of soil particles by natural representative like water and air. It's depend on type of soil, enlarge of vegetative cover, strength of rainfall and topography. Soil erosion has debase nearly 51% of India's geographical area.it is estimated that about 5334 million tonnes of soil (16.35 tonnes /ha) are crumble annually in India. Of this, nearly 30% (1572 million tonnes ) is lost in the sea forever and another 10% gates settle in reservoirs of dams, resulting in loss of their storage volume. (As in fig no. 1)**

**Fig-2 :soil erosion due to flood**

**2. WATERSHED DEVELOPMENT**

**2.1 IMPACT**

- **STUDY :- Increased competition for the limited ground water resource has resulted into the rapid depletion of sources. Which is turn creates unmanageable water scarcity problem during the summer almost in all aggro-climatic zone of India.**

**The impact of watershed development Program on drinking water sources in watershed villages and peripheral villages in a complex phenomenon. The study of this model from differing physical and socio-economic frameworks reveals the variability in the nature and degree of impact of watershed development on drinking water regimes from various aggro-climatic regimes of India.**

**METHODOLOGY :- The study involved integration of various data obtain from 3 sources namely from local community through participatory ,questionnaire and transects method (including villages from +within and from out side watershed), from household level socio-economic information was obtained from a sample size of 25% in watershed villages and 10% each from a D/S village up to the area of influence and village out side area of influence of watershed .Fieldwork of the study was based optimized during March-April-May to experience the extreme situation during pre monsoon summer and understand the changes due to the programs.**

**Drinking water, sanitation, eco-system dimensions and socio-economic situation were focus areas of study. Specific issues and inductors have been identified under each of focus areas to assess watershed system as a whole keeping WSS at centroid.**

**After the study of cases with above methodology, the data gathered was synthesized through a sample matrix based analysis. The case studies revealed interesting fact and data on similarities and differences in implementation of**

watershed projects by various programs each with its own objectives, approach, timeframe and budget.

- **NATURAL CASUSES :-**

All the watershed except two in western Ghats fall under low rainfall zones. The rainfall in these ranges just between 350mm to 650mm that too is very erratic. In non-attendance of surface storage, there has been very limited ground water freshen in monsoons. Natural recharge is very limited due to the reality that all the studied watersheds are discover on the upper most part of region or valleys. Except UP no other area has access to river water coming from other regions. All though there is good rainfall in the watersheds at western Ghats (manhere and kelghar) the topography and geology is not favourable for ground water storage and also the yields. Being a common water level for both home and stream use in project area, the irrigation use for kharif and rabbi season consume all water sources. So overall consumptions of ground water guide to drinking water problem in summer season in these areas. The water use for coconut throughout year in Adihalli area dries of drinking water dug wells in summer and decrease yield of bore wells.

**2.2 TREATMENTS**

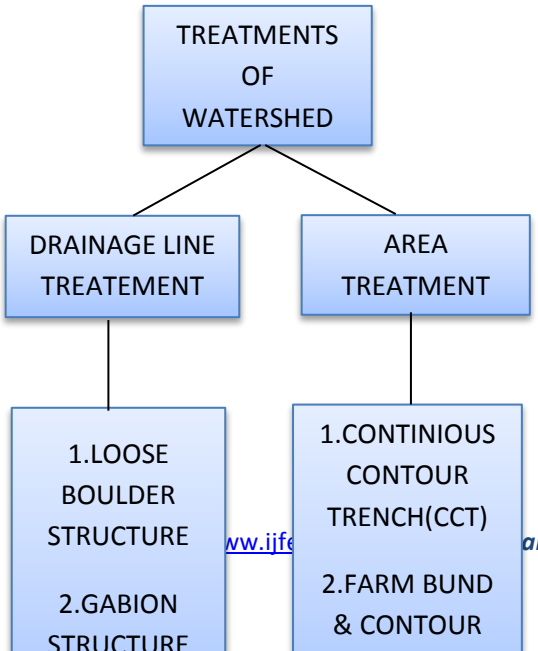


**fig-2: Flow chart of treatment of**

**watershed development**

1. **CCT( continuous contour trench):-**

- **It is usage for the non agricultural land.**
- **It is suitable involvement on land with it's slope reach between 10% to 30%.**
- **Prevent use of CCT, if depth of soil is less then 20%.**

**2.FB/CB(farm bund and counter bund):-**

- **Farm bund is nominate for the slop between 1 to 3%.**
- **Counter bund is consulted for the slop between 4 to 10%.**
- **Always involve the farmer groups, while deeming the position and number of outlet necessity for farm bunding.**


**Fig-3 : Water Management Process**

**Now we are living in Vidarbha region of Maharashtra state, our ground water level is extremely low. To increase the water level below our houses, we can collect raining water of our terrace into pit of different dimensions with the help of pipes by which it will help in increasing the**

**level of water below ground which we can collect by borewells or to increase the level of well inside our houses. There is also new techniques which are now-a-days implements in our colonies before constructing the road. The rainwater which are runoff we can collect with the help of pipes and gives direction to percolate below our colony road by which the level of water table will increase in that region.**

## 3. CONCLUSION

In this paper of watershed development we had study about the actual ideas of watershed development. Also we had known about what is watershed basic concept regarding watershed development and management ,as well as how to used and apply this technique in our houses and also used at the before construction of roads etc.
This case study will help us to protect an environment and to prevent soil erosion and water conservation in any region. We will used this knowledge for developing the agricultural condition of country by achieving economy.

## 4.ACKNOWLEDGEMENT

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