



**'RURAL DEVELOPMENT: A MODEL PROJECT PROPOSAL ON 'WATER CONSERVATION AND PRESERVATION THROUGH WASTE WATER MANAGEMENT AND USE OF SOLAR ENERGY TO AVOID WATER SCARCITY FOR VILLAGE DEVELOPMENT' -AN EMPIRICAL STUDY OF ADOPTED VILLAGE CHINCHOLI BUDRUK'**

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**ABSTRACT**

*Let us begin with some common understanding about the various issues and problems of the various community. Water crisis is the Global problem nowadays Our Duty as an educational Institute is to impart and create awareness among the community people with responsibility and proper initiations. Thus we propose the above development project to support the community with due respect and responsibility .Let us have some common understanding about the theoretical understanding of the Issue and problem. The present Research paper is based on the research conducted at chincholi(bd)village of Aurangabad District in August 2018.*

**Key words:** *Water scarcity, preservation, conservation, development, people's participation*

**INTRODUCTION:**

Water Scarcity, Conservation and Preservation is an important issue before us, which includes the policies, strategies and activities to manage and sustain the resources, of all living things, to protect the and to fulfill the current and future human for water. The Important factor which affect on Water as a resource are mainly the Population, household

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size, and Development. Due to change in climate and environment there is a huge increased pressure on water resources as natural resource especially in Domestic use, Industries and agricultural products. There is a need and emergency of water conservation and preservation, which can be discussed in following manner:

- 1) Need to balance on fetching and use of fresh water resource for next generation
- 2) Energy consumption and preservation in the process of fetching up of water and use of electricity
- 3) Making it habitual to preserve and conserve the water resource through various ways. Protect fresh drinking water resources.

#### **Objective of the study:**

The researcher Intended and draw the following objective as:

- (1) To find out the ways to solve the issues and problems through people's participation and initiation by using scientific way of study and Research
- (2) To bring out the proposed development plan with the help of villagers active participation

#### **Ways of Preserving the water resource:**

- Protect fresh drinking water resource
- Avoid unnecessary household usage.
- Conserve energy needed to pump, heat, and treat fresh water.
- Reduce harmful land erosion caused by agricultural irrigation.
- Maintain essential aquatic ecosystems.
- Create new ways of water preservation through preparing farm ponds, ponds lake, dams and check dams, CCT etc in rural as well as Urban areas(whenever possible)
- Successful implementation of watershed development management program with people's participation and local self Government initiative and support from NGO's

#### **What is Waste Water treatment/management and waste water harvesting:**

Wastewater treatment is the process of converting wastewater , that is no longer needed or is no longer suitable for use into bilge water that can be discharged back . It's formed by a number of activities including bathing, washing, using the toilet, and rainwater runoff.

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Wastewater is full of contaminants including bacteria, chemicals and other toxins. Its treatment aims at reducing the contaminants to acceptable levels to make the water safe for discharge back into the environment. There are two wastewater treatment plants namely chemical or physical treatment plant, and biological wastewater treatment plant. Biological waste treatment plants use biological matter and bacteria to break down waste matter. Physical waste treatment plants use chemical reactions as well as physical processes to treat wastewater. Biological treatment systems are ideal for treating wastewater from households and business premises. Physical wastewater treatment plants are mostly used to treat wastewater from industries, factories and manufacturing firms

### **Water Harvesting:**

Wastewater is any type of water that has been affected by human use. Wastewater is "used water from any combination of domestic, industrial, commercial or agricultural activities or / and any sewer inflow or sewer infiltration". Therefore, wastewater is a byproduct of domestic, industrial, commercial or any other activities. The characteristics of wastewater vary depending on the source. Types of wastewater include: domestic wastewater from households, municipal wastewater from communities. . Wastewater can contain physical, chemical and biological pollution agent. Households may produce wastewater from toilets sinks, dishwashers, washing machines, bath tubs, and showers. Households that use dry water resources produce less wastewater than those that use flush toilets.

### **Solar and Wind Energy:**

Solar Energy is a energy which we can get from the sun and can use for various purposes as like the wind energy from wind

### **Statement of Problem :**

The adopted village Chincholi Budruk is suffering from three major and severe community problem in the area, they are Health, Road and Transportation and Scarcity of Water. The villaga is situated in the hilly area of Phulambari Taluka from Aurangabad District. We have conducted various meeting with Head of Village , Panchayat members and the community people. The main and crucial problem of the villagers is of Water. Though the village took active participation in the contest taken by PAANI foundation and some work related with water awareness have been organized, some farm ponds and community ponds have been built surrounding the area of the village but they are of no use, there is no storage of water, still the villagers are suffering of non-availability of water, in spite of having a community dam underneath of Sanjul Village. The village is situated on the top of hills. They don't have any proper water storage system. Presently, they have two small storage tanks which are



filled with water and then it is distributed among the villagers. They have community tanks. The six months including the whole summer, the villagers suffer a huge water scarcity.

### **Reasons Behind the Problem:**

We may discuss the issue/problem on the following basis :

- 1)The village is situated at the interior Eastern-Western part of Aurangabad on the comprising highway of Aurangabad-Ajanta, which is 26 km. ahead from the city.
- 2)The whole region is hilly region, where most of the part comes under Forest Department and Land for forest conservation.
- 3) There are no proper water reservoir /storage system in and around the village ,though some work in this regard is done
- 4) The area is drought prone and the rainfall is moderate.
- 5) Sanjul Dam is Constructed, which is underneath of the village, but there is no proper way of water supply to the village.
- 6) The village panchayat tried to construct the well nearby the dam, but it was of no use because though the well was constructed nearby the dam, due to rocky area underground water level was distructed, there was no water storage found, it was empty. So the project was unsuccessful and near about 25 lacs were wasted on the project.
- 7) Due to the Geographical structure the village is facing severe water scarcity ,particularly during six months summer and attached season.
- 8) Some lakes have been constructed with peoples participation and shramdaan but there is no proper water storage due less rainfall and they don't have adequate water supply system/pipeline.
- 9) They are lacking with the non-availability of funds, already they were allotted through various development programs such as JNSY, funds were utilized but the project went unsuccessful.
- 10) The Demography of the village contributes a lot in creating the issue/problem of the villagers.



### **Demography of the adopted village chincholi budruk:**

Chincholi (bd) village is situated nearby on the East-West of Aurangabad-Ajanta National highway. It contributes 5/6 km. from the National Highway comprising 948 total population out of which 350 are women and rest consists male population. The village Chincholi though a part of Aurangabad district but comes under the Jalna Loksanha Constituency for parliamentary Election. The village is situated and surrounded by the hilly and forest land having Agriculture/Farming as a prime occupation of the villagers. Ninety percent population belongs to Maratha community whereas there are few houses of Scheduled castes(i.e.Mahar and Matang (03 & 4 houses each )) and OBC( i.e. Lingayat Vaani (01),Sonaar (01)and Lohaar(03))community people. The village is being awarded with Nirmalgram Swatchta Award in 2007 and State Tantamukta Award in the year 2007-08. Last year they have been awarded with the State level prize of 7.5 lac by Paani Foundation for their active participation in the Water Competition organized by Paani Foundation. Last year villagers organized the Shramdaan Activity to construct the dip CC, CCT, Maati Naala and Farm pond, in which all the villagers took active participation.

### **Scheduled Information of the Proposed Project :**

The Researcher Conducted the baseline survey on 8<sup>th</sup> August 2018 with some volunteer research Investigators also took active participation in the BLS and gathered the required data for the said purpose by using scientific method. The villagers are suffering from severe water crisis and they don't have any proper water supply system, there is water scarcity in the village, as we have discussed above. Taking into consideration ,the following proposed development plan is prepared as in the following way:

The Researcher intended and proposes the NGO's or any educational Institute or organization to take an initiative as and in building and constructing the bore well and construct the cement water storage tank with surrounded water taps and one water harvesting well nearby the bore. Further install a solar energy plant to fetch and produce the solar electricity which will be used for fetching the water from bore well. Whatever the waste water is remained that will be poured in the digged well and will be harvested again in the nearby constructed underground well. The organization will take proper precautions in maintaining and repairing of the project. Some responsibilities will be by the local community people.

### **Objective of the Project:**

Following are some of the objective behind the project:

- 1) To Encourage the water preservation and conservation practices among the villagers.

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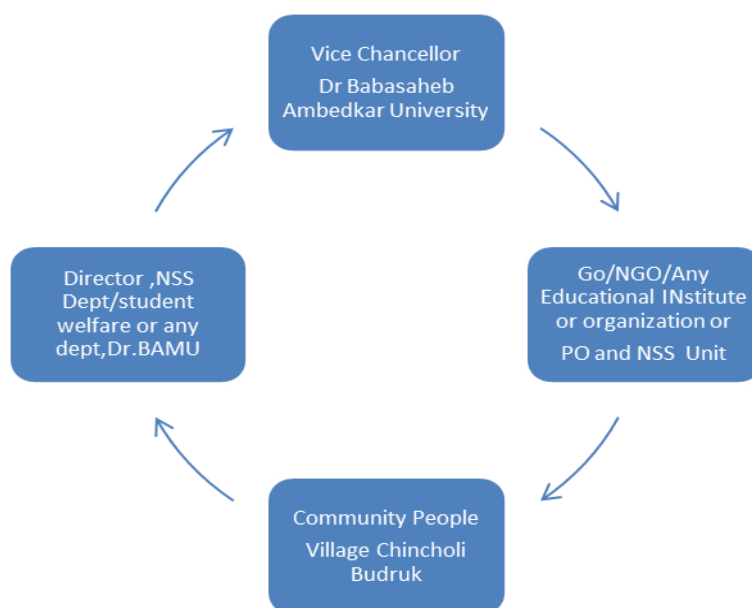
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- 2) To change the habitats of the people of water consumption practices.
- 3) To solve the issue of water scarcity of the villagers
- 4) The projects aims at using this facility only when they have no options of getting a water from any source
- 5) To encourage the sustainable development.
- 6) To ensure and preserve and conserve the environment.
- 7) To enhance and help the environment and climate change by initiating pollution free tactics.
- 8) To initiate the pro-environment practices among the villagers.
- 9) To Create awareness about the techno-environment practices among the villagers
- 10) To take initiation in enhancing and implementing the Rural development programs as an responsible Institute.
- 11) To Impart, participate and support the community in the process of Development

**Research Methodology:**

The village consists of 150 house holds in the village and few houses in the fields. The Researcher conducted base line survey of the village and interviewed all 150 head of the households and then collected the required data for the research study. The Proposed plan is a outcome of the discussion with the villagers. The Research paper is fully based on the primary investigation .

**Sample Stakeholder chart of the proposed Project:**





### Sample Plan of Implementation:

The college or any organization/institute/Dept/NGO may take an initiation and may propose to finish the said development project during any of the session or season as per their convenience. Prior studies and survey had been already carried out, seeking technical assistance and support to complete the project. Pri- Work, survey and study conducting various meeting with Head of the village , member of the panchayat body and the villagers

### Sample Time Schedule for the project:

As discussed earlier we propose to complete the development work during the NSS Special camping which is been scheduled in the month of December 2018, on the basis of pri-work, survey and study. We will seek the NSS volunteers and people's participation for primary work and technical assistance and support from the technical team. We propose to take support from the technical people/team in fast completion of the work. The technical team will include the people from various grounds who are familiar while doing such work.

### Sample Budget For the Proposed Development Project:

#### Sample Expenditure Plan and costing for the project of Chincholi Budruk ( Approximate Plan)

Particular	Amount
Bore well	15000/-
Electric Motor	10000/-
Construction of cement tank and base	45000/-
Solar Panel	100000/-
Waste water tank(refilling well)	20000/-
Labor charges	10000/-
Total Amount	200000/-

*The above shown expenditure is an approximate amount for the development project. Actual Expenses have to be incurred*

### CONCLUSION:

Any Institute or organization or developmental agency or any NGO role should be to support and encourage the villages to become more reliant and developed.



Our efforts should be to restore the resources and enhance the development process. Adopt any village and thus began and involved in the process of village development plan through various development schemes and programs. We must propose to solve the water scarcity problem of the village and to enhance the environment by using the nature's renewable energy to develop the rural sector.

### **Recommendations:**

Based on the above study the Researcher intended following recommendations:

- People's participation in the development process is important
- Thorough study and Research is needed for development plan
- Policy framing execution, planning and implementation are the important aspect for any successful development program
- Development plan must be based on the need of the people
- Proposal of development must be prepared seeking people's priority and advice
- There should be an effective implementation mechanism

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