

## Water conservation project

### Introduction:

The nature can only sustain when there is equal balance between ecosystem and human system, the equal balance will create good quality life and unbalanced act will create worst quality of human life. In the rural areas the natural resource such as land, water, vegetation, livestock and livelihood are inter-linked with each other. Approximately 17 percent in the Indian GDP is contributed from the Agriculture and approximately 60 percent of the population is depending on the income from agriculture.

In the last few decades we are seeing that the environment is getting degraded and destroyed due to human's greedy activities. This kind of unwanted activity and experiment with the environment has not only threatened to the various species but now human is also suffering from various effect of global-warming. This has breakdown the traditional local management connection between the human and nature.



These two brothers from Karanjgaon village have bunked their school because they have the responsibility to bring water for their daily needs from distance.

### Watershed programme:

Watershed is not simply the hydrological unit but also socio-political-ecological entity which plays crucial role in determining food, social, and economical security and provides life support services to rural people.

At the backdrop of less rainfall, depleted ground water conditions, crop failures, Govt. Of Maharashtra has declared more than 24,000 villages in the state as drought affected during year 2015- 16. Out of 1353 villages in Aurangabad district, 237 have been declared as drought affected in year 2015. To deal with the recurrent drought situation, Government of Maharashtra launched Jalyukta Shivar Abhiyan on

December 5, 2015 a flagship programme for making 'Drought Free Maharashtra by year 2019' enabling water for all.

### **Integrated water and soil conservation Programme**

According to the Soil Conservation Society of America, a watershed is a geo-hydrological unit comprising land and water within the confines of a drainage divide.

The focus of project is Soil and water conservation is on i) In situ water harvesting, ii) increasing ground water level, iii) increasing irrigation potential & creating facilities for protective irrigation, iv) creating decentralized water bodies, v) rehabilitation of existing water bodies through de-silting, vi) soil conservation vii) livelihood programme. It has been implemented various water harvesting measures and soil conservation on integrated approach through convergence of various ongoing schemes.

The benefits of the interventions have reach out directly to the villagers in terms of increase in ground water table in dug wells / bore wells, increase in area under protective irrigation, reduction in incidence of crop failures due to longer dry spell, increase in cropping intensity, increase in crop yields, all this has lead to increase in income & development of drought coping mechanism.

### **Holistic approach of MGVS**

1. Promotion of modern technologies for maximum output of the programme
2. Soil conservation to increase crop productivity.
3. Increase the income and income source of underprivileged people.
4. Create awareness on natural resource management.
5. Livelihood programme by establishing Self help Groups (SHGs)
6. Empowering rural women by involving them in the decision making process.

### **Significant Activities:**

**Planning and Advocacy:** Specific Intervention Plans is prepared with active participation of local community and villagers. Plans prepared by the district authorities are also referred & reviewed and then works to be taken up is finalized. Detailed technical survey of identified sites have undertaken for preparation of design and estimates. The technical plans & estimates are duly scrutinized by technical team prior to approval.

**Water resources development interventions:** Based on the local needs & suitability, Water resources development interventions like Cement Check Dam, ENB etc and old CNB repairing Nalla/River deepening & widening of streams only black / fertile soil and murum.

**Water user group and committees formation:** 34 Water user groups / Committees have been formed for around each of the structure for effective operation and maintenance of created structures including effective water management. These committees have been provided training & capacity building inputs for ensuring sustainability. Further Social Mobilization campaign has been conducted in proposed villages with emphasis on increasing water literacy & effective water management.

### **Implementing approach:**

1. Water management and drip irrigation

2. Farmer club
3. Natural resource management
4. Livelihood development
5. Community mobilization.

#### **Role of Stakeholders:**

1. **Villagers:** The villagers have contributed Rs. 14.10 lakhs cash for the water conservation project, this contribution was voluntary contribution. The villagers have also participated actively in the planning and implementing stage from time to time for the success and completion of the programme.

2. **Local government Authority:** the local government Authority support is very important because they are the one who clear the project work and authority like Sarpanch and local community group have helped us in convincing the villagers in actively participating and supporting us for the work.

A) District and Block Govt. department: the district and block government department help in the project work at the different stages of the project from time to time, like providing no Objection certificate and other required clearance. MGVS has shared all the required project information with the concern department so there is not overlapping/duplication of work.

#### **Outcome of the project**

After successful implementation of the project under integrated water and soil conservation, following are the outcome.

- 34 Water User Groups has been established from each structure and managing the operation & maintenance of water harvesting structures.
- Water harvesting structures benefitting **9433 hectare** of area under protective irrigation in Kharif season.
- Water harvesting structures created storing of rain water every year in selected villages.
- Increase in ground water level of dug well / bore well has lead to assured drinking water throughout the year and livestock. This has lead to tanker free villages. Trained / capacitated water user groups have adopted efficient water management practices. It has lead to increase in crop yield and thereby increased income level.
- Generation of self employment in watershed programme
- Women along with men have participate in the decision making process.
- Awareness on water and soil conservation
- Agro based small scale income generation is being created
- Crop growing area has increased.
- Access to safe drinking water throughout the year for humans and for livestock as well.

#### **Project sustainability**

34 Water User Groups / Committees are formed for around each of the structure for effective operation and maintenance of created structures including effective water management. These committees have been provided training & capacity building inputs for ensuring sustainability. Further Social Mobilization

campaign is conducted in selected villages with emphasis on increasing water literacy & effective water management Water User Group is ultimately responsible for future operation & maintenance of created structures.

**Difficulties in the project at the ground level:**

At the initial stage it is was very difficult to convince the farmers to support for the cause because many of the farmers have increased their farm sized in the nearby area of pond and nala therefore they don't agree to give-up that land therefore it become very difficult to began the work. MGVS has made all efforts to convince these farmers so that once the project is started we don't have to face any objection. We have organized PRS meeting at the center of the village with the villagers and then solved all the hurdles with the help of old villagers and other local influential personality of the area to make the thing happen according to the project.



### Water Conservation work

Village name	Work name	No/ quantity of work	Total beneficiary	Water storage(M <sup>3</sup> )	Community contributions	Work expenditure (in Lakh)	Irrigation area (in Hectare)		
Karanjgaon	Cement Nala band deepening, widening and desilting	3500x11x2.75	1760	105875	0.40	27.25	1270		
	Construction Cement Check Dam	4		75000				0.60	12.00
	Village pond construction	80x60x2.50		16800				0.10	9.75
Hadas pimpalgaon	Village pond	100x40x4	1277	16000	0.00	5.50	640		
Palkhed	Cement Nala band deepening, widening and desilting and K.T weir repairing	6	4277	98280	1.36	32.00	1667		
	Desilting of Percolation Tank	260x47x1.50		18330				0.80	8.80
Shivrai	Village pond	45x55x3	4227	7425	0.35	3.77	1896		
	Cement Nala band deepening, widening and desilting	230x3x12		8280				0.36	2.95
Malisagaj	Village pond	42x45x3	1293	5670	1.85	2.50	598		
	Cement Nala band deepening, widening and desilting	6		67800				47.00	

Aghur	Desilting of Percolation Tank	120x60x2.50	3240	18000	0.76	8.50	1342
	Cement Nala band deepening, widening and desilting	4		35495	1.39	16.00	
Kanaksagaj	Cement Nala band deepening, widening and desilting	3	1860	16700	0.88	9.55	1270
Dhaigaon	K.T weir deepening, widening and desilting	30x2.5x500	1560	37500	5.25	5.25	750
	<b>Total</b>		<b>17934</b>	<b>527155</b>	<b>14.10</b>	<b>190.82</b>	<b>9433</b>