

Proposal for **Watershed Management in Vihigaon**

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| Submitted by: | Vivekanand Seva Mandal (Reg.No. MAH/364/95/THANE) |
| To: | AADHAR, The Netherlands |
| As a part of: | Vihigaon Rural Development Project |
| Date: | March 2001 |

A brief background:

Project Vihigaon: With its expansion & aspiration to contributing to social development in a constructive manner, VSM has adopted Vihigaon, a remote village 200 km away from Bombay. Vihigaon is spread over 12 'padas' (hamlets) with a total population of about 1500, agriculture being the main source of livelihood.

VSM strives for the comprehensive development of the village through following main projects: Education, Health Care, Self Employment, Ahilyabai Holkar Project For Women, Agriculture.

Agriculture is the main livelihood for the villagers in Vihigaon. Most of them depend entirely on it, while others grow their staple food like rice, nagli, vari and some vegetables during monsoon.

The main drawbacks in the existing system are:

- Water is available only in the monsoon period enabling only single crop in a year
- Agriculture as an occupation do not support them to the fullest extent throughout the year and the villagers have to look for smaller jobs for their survival
- Even drinking water is not sufficient resulting in a host of problems including health problems
- In summer, even the wells are dry and women have to fetch water from longer distances
- There has been no effort to conserve water and irrigate the land, there is a lack of infrastructure as well as the awareness

If water is available for agriculture throughout the year, it will create enough food, employment and ultimately wealth in the village. Therefore, to ensure ample supply of water, VSM has planned to take up watershed management programme.

Objective:

The aims of present proposal are:

- (A) To build a model to demonstrate the probable impact of watershed management to the villagers
- (B) To implement the first starting phase of the long term watershed management program to be implemented in the village
- (C) To inculcate the awareness and willingness among the villagers to participate in the programme in the longer terms

Watershed management: meaning and advantages

Watershed management programme per say is a broad programme requiring commitment of five years, funds to the tune of 10 lakhs and wholehearted participation of villagers. The results of course are equally astounding.

Watershed: Watershed is an area having common drainage e.g. river basin is a big watershed, because all the rainfall on this area ultimately comes to the river. Vihigaon can be considered as a group of small watersheds.

Since watershed management is meant for all-round development of the village, it includes 3 parts.

Physical conservation measures: Soil conservation structures like continuous contour trenches, water conservation measures like gully plugs and gabion structures and afforestation i.e. tree plantation.

These measures ensure assured supply of clean drinking and irrigation water, protect the valuable top soil and therefore regenerate the natural resources.

Agronomic measures: These measures includes improved agricultural practices, providing inputs like good quality seeds, plant protection measures. This allows making best utilisation of **these conserved resources**.

Social measures: It includes self-help groups, setting up cottage industries etc. to supplement the family income.

Watershed management program: short term strategy

Find below the SWOT (Strengths/Weaknesses/Opportunities/Threats) Analysis for this project which leads to clear idea of short & long term strategy.

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| Strenghts: <ul style="list-style-type: none"> • Fertile land • Good rains in the monsoon • Availability of man-power in the village • Existence of a few wells and water channels in the village • Constructive participation of villagers in VSM initiatives • Availability of sound technical practices, which are time tested, in areas similar to Vihigaon • Strong group of active VSM members | Weaknesses: <ul style="list-style-type: none"> • Insufficient funds for full-fledged watershed development in Vihigaon • Inexperienced and illiterate villagers • Lack of full time workers in VSM on a constant basis |
| Opportunities: <ul style="list-style-type: none"> • Water availability in the wells can solve the drinking water problem • Two crops can be taken on annual basis • Dairy, fruit plantation, and other small scale industries can be started • Availability of livelihood in the village throughout the year | Threats: <ul style="list-style-type: none"> • Time lag to actually see the results • Over-expectations of the villagers • Non-availability of funds in the longer run • Lethargy of the part of villagers |

Based on the above analysis, our short term strategy is:

- To take up a model project for demonstration of implications of water shed management activities and its impact on agriculture
- The area under consideration will depend on the money sanctioned
- The success of Model experiment will be ploughed back into the large-scale watershed management initiatives to be initiated in Vihigaon in the next phase of the program.

We have purposely avoided dams, as they need more money, take up more land.

Phase-I proposal

To start with we want to take up 3 measures.

1. Continuous/staggered Contour trenches: Trenches are dug across the slope (on contour lines) to conserve water and to raise trees on slopes. Cost is around 8000 per hectare. This treatment has spectacular results. It also ensures survival of tree saplings.
2. Gabion structures/Gully plugs: In this we will create small hurdles in the stream to slow the water. Some of it is stored and some of it enters the ground storage. Gully plugs cost less (around Rs. 100-500/structure), but they are less efficient and need annual repairs. Gabion structures are costly (Rs. 4-5000/structure), but it is a one-time expenditure and they are very much effective.
3. Tree plantation: Plantation of trees to fulfil their fuel fodder and timber needs. Some economically important species like fruit trees can also be planted at a later stage. The above two treatments and people's involvement will ensure their survival. Cost is around Rs. 5-7000/ha.

Cost evaluation:

1. Contour marking equipment: Rs. 2000/-

It will also need equipments like 'A' frame, ropes etc. The estimated cost of all this: 5000-8000 Rs.

2. Marking wages : Rs. 3000/-

Marking of contour lines is the most critical part, as it will decide the success of treatment. The women in self- help group (Ahilyabai Holkar Bachat Gat) have agreed to do this job. But they will have to be trained and given wages for this.

3. Excavation cost : Rs. 16000/-

Daily excavation: 100 feet

Number of people needed/day:5

Daily wages: Rs. 175 based on Rs 35/- per person per day

Total trench length: 3000 m in 3 hectares

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| Total expenditure for phase 1 : Rs.21000/- |
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Project execution:

Time Frame:

Project Initiation date: April 15,2001.

Scheduled time for completion: 3 months

Project plan and execution Steps

1st stage: Training of villagers

2nd stage: Marking of contour lines

3rd stage: Excavation

4th stage(in monsoon) : tree plantation on contour bunds (to be arranged from contingency fund)

Support from VSM

Complete project will be co-ordinated by VSM in terms of its technical guidance, actual execution, overall supervision and co-ordinating finance. We will make sure that one of us will be present on each working day to monitor the work.

Feedback structure

VSM will provide feedback to AADHAR in the form of a report accompanied by photographs for each stage getting completed. Minutes of monthly meetings of education group will be sent to AADHAR by email.

Responsibilities and contacts:

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The only way of getting our divine manifested is by helping others do the same. The poor, the downtrodden, the ignorant, let these be your God.

-SWAMI VIVEKANAND.
