ABSTRACT

Case title: 
India: A campaign for conservation of water bodies by water user groups (#246)

Subtitle: 
Describes a district campaign executed by the water user groups like fishermen cooperative societies and farmers’ water associations at the village level.

Description

The district of Tikamgarh has a large number of water bodies, which are used for irrigation, fisheries and drinking purposes. These include tanks constructed since the 8th and 9th century AD and up to the present time. Quite a large number are still serving the needs of the people, but are in various stages of degradation, siltation and consequent reduction of storage capacity, with weed growth due to anthropogenic activities.

The district faced extreme water scarcity for three consecutive years from 2000 to 2003. Therefore the people, as well as the district administration, realised the need for concrete initiatives to restore these water bodies. The district administration decided to coordinate the programme with the concerned government departments as well as NGOs with the execution to be done by water user groups consisting of farmers’ water users associations (WUAs) and fishermen cooperative societies.

The District Magistrate took meetings with the WUAs and Fishermen societies in the presence of the task force and motivated them for action at the field level by public participation at the local level. Similarly, clear cut directions were given to the Chief Executive Officers of the sub-district level rural local bodies and the Chief Municipal Officers to mobilize their field level staff. Zonal officers heading a team of field staff were given responsibility of a cluster of villages to monitor the programme and provide technical guidance.

The programme was executed during the first week of February 2003, including the World Wetlands Day celebration on 2nd February, 2003. All activities were carried out by the water user groups, fishermen societies, self help groups and urban and rural local bodies without any monetary assistance from the district administration. Through the public awareness generation discussions organised at various villages, it was stressed that all water users should keep regular watch on water sources and ensure prevention of pollution for their own good. Activities such as desilting, removal of Ipomea, water hyacinth and red algae in 319 water bodies, construction of structures for preventing soil runoff, and preparation of compost pits to promote recycling of organic waste, were executed in the week.

The campaign proved to be a catalyst for the expansion of the water conservation activities in the district in the coming years by the community based institutions and for raising the level of self belief amongst the dormant water user groups that they were indeed the managers of the water resources under their jurisdiction.

Lessons learned and replicability

It illustrates how a campaign for the conservation of water bodies can be run by motivating the stakeholders, water user groups themselves and members of local bodies. However it necessitates that the government field level bureaucracy is willing to provide the enabling environment and have trust in these community based institutions.

After igniting the spark the government should take the backseat and let the campaign run on its own with only technical backup being provided by the government departments. It must be also pointed out that this requires appropriate leadership from the top field officers of the district who should have a vision and the drive to execute the vision as an action plan. The continuity of such officers is therefore essential for keeping up the momentum.

The routine working style and lack of coordination between the field departments makes replicability of such actions difficult in other districts. However, once this is achieved then for continuity's sake the team should be left undisturbed so that such actions get institutionalized in the next 2-3 years and then the community based institutions are empowered and can proceed on their own with minimum leadership support from the district bureaucracy.
Importance of case

Conservation efforts made during the week revealed that local action moves the world. Water bodies can be restored through people's participation if the community based institutions are strengthened and motivated by direct dialogue and the government only provides technical support. Once it gets initiated the campaign sustains on self motivation of the water user groups.

Tools used:
C 4.2 Communication with Stakeholders
B 2.1 Participatory capacity and empowerment in civil society
C 3.3 Improved efficiency of supply

Keywords: Water bodies, water management, local campaigns, communication, education, public awareness

MAIN TEXT

1. Background and Problems

Water is a precious commodity. The people of central India depend entirely on southwest monsoon, which remains active only for 2-3 months each year, for their fresh water needs throughout the year. Therefore former rulers have constructed numerous large and medium reservoirs for storing water to fulfill the demand throughout the year. Tikamgarh, the water bodies district of Madhya Pradesh exemplifies this.

During the reign of Chandela and Bundela kings (1100 AD to 1750 AD), 962 large and medium size tanks were constructed, utilizing the natural reefs and ground water barriers. Some of these Chandela tanks are a series of reservoirs, wherein the run-off from one leads to the next and are engineering feats constructed in harmony with the terrain. Due to neglect and encroachment only 127 out of 962 Chandela tanks are still serving the needs of the people. Increased population and human activities have made water increasingly a scarce commodity, even in Tikamgarh district with many water tanks.

In the post independence period, the state government started developing irrigation projects and gave emphasis for the maintenance of existing facilities, like live tanks, canals and dams. However, cultivation and intensive flood irrigation practices caused demand for large quantities of water. Increased population also led to increased utilization of available water sources for consumption. Therefore, these water bodies were subjected to increased stress. A large number of tanks have been constructed under various State Government programmes. In 499 of these tanks fish production is being done by fisherman societies benefiting about 10,000 families of the district. 211 out of these are classified under large and medium tanks.

On the initiative of the government, Water Users Associations (WUA) have been created with the responsibility for proper distribution of available water of the water bodies to the farmers for irrigation purposes. In view of growing scarcity of water, there is need to make stakeholders/user groups of the area aware of the danger and recognize the need to utilize the available water resources in a judicious manner to ensure their sustainability by taking action at the local level.

During 2000-03, the district received rainfall less than 50% of normal rainfall resulting in excessive exploitation of the tanks and small water reservoirs and extreme water scarcity. Due to years of neglect, siltation and encroachment, live storage capacity in most of the tanks had reduced to below 50%. Absence of riparian vegetation along the bunds of tanks, discharge of untreated effluent and dumping of solid waste had also compounded the problems. Nutrient enrichment had led to algal growth and deterioration of water quality and thus affected the hygiene and health of human beings and the bovine population to great extent. Community efforts to maintain these tanks in an environmental friendly manner were found lacking.
2. Decisions and Action Taken

To address these problems, it was decided by the District Magistrate, who was also the Mission Leader of the District Watershed Mission, to launch a communication, educational and public awareness generation campaign in the district to involve a range of stakeholders and user groups in cleaning of tanks and to make the public aware of the multiple benefits that can accrue from proper management of the water bodies.

The following exercise was carried out before the programme implementation:

1. A Task force comprising district heads of concerned government departments such as Cooperatives, Water Resources, Fisheries, Agriculture, Local Self Government departments and NGOs was constituted for this purpose. Meeting of the task force was organized and during the deliberations the following action plan was formulated:
   a. Mass awareness campaign to be organised during the State Government village contact programme starting from 31st January to 6th February 2003 to highlight importance of conservation of water bodies and to advise the people of the ways and means to keep them clean.
   b. Observe World Wetland Day (WWD) on 2nd February 2003 during the weeklong programme to highlight rational use of water resources.
   c. Organize Gram Sabha (Village Community Meeting) to communicate, educate and spread awareness on integrated water resources management issues.
   d. Undertake desilting and cleaning of tanks, uprooting of Ipomoea, removal of algae and construction of gabion structures on inlet channels to prevent silt inflow, cleaning of effluent discharge system of towns and villages so as to stop inflow of garbage on to the tanks.
   e. The programme was to be implemented by the government departments as well NGOs, fishermen cooperative societies, irrigation department works and water users associations (WUAs).

2. A base line survey of the actual status of the water bodies was carried out to prepare a plan for rehabilitation of tanks.

3. The task force had separate meetings with the WUAs, and the Fishermen Cooperative Societies to inform them of the programme, listen to their suggestions and motivate them to execute the work.

4. A similar meeting of the local bodies’ functionaries consisting of the Chief Executive Officers of the block (sub district level) rural local bodies and the Chief Municipal Officers was organized and clear cut directions given for fixing responsibility of the field staff of the local body for the programme.

5. For the programme implementation, to be monitored by the government departments, the villages were organized in clusters as follows:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Block</th>
<th>Cluster of villages</th>
<th>No. of Zonal Officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Tikamgarh</td>
<td>42</td>
<td>04</td>
</tr>
<tr>
<td>02</td>
<td>Baldeogarh</td>
<td>37</td>
<td>04</td>
</tr>
<tr>
<td>03</td>
<td>Jatara</td>
<td>39</td>
<td>04</td>
</tr>
<tr>
<td>04</td>
<td>Palera</td>
<td>30</td>
<td>04</td>
</tr>
<tr>
<td>05</td>
<td>Prithvipur</td>
<td>30</td>
<td>04</td>
</tr>
<tr>
<td>06</td>
<td>Niwari</td>
<td>33</td>
<td>04</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>211</td>
<td>24</td>
</tr>
</tbody>
</table>

While making the cluster, it was ensured that all medium and large-scale tanks in the district were covered. For each cluster, a team was appointed led by the Zonal officer and consisting of field officers and staff of the concerned departments, to monitor the programme and provide technical assistance.

6. There were a large number of NGOs in the district working for various poverty initiatives and women empowerment programmes. They had previously worked with some village Pani Roko Samities (Water conservation societies) in preparing the water budget for the villages and were again asked to take on the responsibility of leading the campaign in those villages. They were allocated 224 villages independent of the government agencies as detailed below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Project office</th>
<th>No. of village covered</th>
<th>No. of NGOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Swashakti Pariyojna</td>
<td>79</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>D.P.I.P.</td>
<td>63</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Nehru Yuva Kendra</td>
<td>82</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>224</td>
<td>12</td>
</tr>
</tbody>
</table>
Thus 435 villages in all were specifically targeted. During the mass awareness campaign villagers were educated on the importance of sustaining clean water resources, garbage management by construction of NADEP chamber for making compost from wastes thereby promoting organic farming. Villagers were made aware of the importance of personal hygiene, benefits of clean drinking water, vegetation and afforestation. Methodology on rainwater harvesting and recharging system for well and hand pumps were also explained to them. These activities were carried out at the Village Community meetings, where villagers, students and others took part enthusiastically.

3. Outcomes

There was overwhelming response from the community in all the awareness as well as conservation works. The outcome was field level action, which included cleaning of tanks, construction of compost pits and water harvesting structures, village/street up-keep and collection and disposal of solid wastes. The details are as follows:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Work actually done</th>
<th>Quantity(no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cleaning of tanks (uprooting of Ipomoea, desilting and removal of algae)</td>
<td>139</td>
</tr>
<tr>
<td>2</td>
<td>Construction of NADEP (i) Kaccha (temporary) (ii) Pakka (Durable)</td>
<td>867 755</td>
</tr>
<tr>
<td>3</td>
<td>Village lane upkeep</td>
<td>690</td>
</tr>
<tr>
<td>4</td>
<td>Rain water harvesting structures</td>
<td>45</td>
</tr>
</tbody>
</table>

139 out of the 211 middle and large tanks, which were being used for irrigation and fisheries, were cleaned by removing algae, ipomoea, etc with the participation of farmers water users associations, fishermen cooperatives, self help groups as well as Village Council members. The details of the same are as follows:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Block</th>
<th>No. Of Tanks Cleaned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tikamgarh</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>Baldeogarh</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Jatara</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>Palera</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Prathvipur</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>Niwari</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>139</td>
</tr>
</tbody>
</table>

Numerous gabion structures were constructed across the inlet channels to stop silt, poly bags, and non-biodegradable materials flowing into the tanks.

Some of the exemplary local level actions taken are as below:

i. In Anantapura village, a Gram Sabha (Village community) participatory workshop was organized wherein about 200 villagers, students and NGOs participated. In the workshop the implementation programme for rejuvenation of village tanks by the women self help groups was decided. Desiltation and deepening activities were started with at least one member of each house taking part voluntarily.

ii. In the village Alampura under leadership of village sarpanch (head of the elected local body of the village) women self help groups and members of fishermen co-operative societies participated in cleaning and uprooting of Ipomoea. District officers and Block officers, along with District Magistrate also participated in various activities. Local villages had also joined and extended full cooperation.

iii. In Durganagar under Baldevgarh Block, cleaning of Vindhyawasini drain through public participation was undertaken. A seminar on conservation of water was also organized to celebrate WWD.

iv. In village Madiya women's groups took part enthusiastically along with the government officials, village head, students and teachers in removing water weeds from Rajara Tank.

v. Cleaning and desilting activities were undertaken at Hanumansagar, Maharajpura Tank, Nayakhera Tank and Bhimtal through participation of water users groups, especially women self help groups.
The week long programme, which had also followed the “Khet ka Pani Khet me aur Gaon ka pani Gaon me” (conserve rainwater falling on land and the villages itself) mode for conservation of rainwater, had a lasting effect on the people. The campaign proved to be a catalyst for the expansion of the water conservation activities in the district by the community based institutions and for raising the level of self belief amongst the dormant water user groups that they were indeed the managers of the water resources under their jurisdiction. The implementation of government schemes relating to water resources management e.g. poverty initiatives programme and watershed mission accordingly benefited on account of better participation from the community.

However, the campaign mode of functioning has not been repeated after the transfer of the District Magistrate in May 2003. In backward areas like Tikamgarh, there is a need for repetition of the campaign for some more time under the leadership of the government field officers for ensuring sustainability of these measures for future. Otherwise there is a risk that the public awareness generated may fizzle out.

4. Lessons Learned and Replicability

It illustrates how a campaign for the conservation of water bodies can be run by motivating the stakeholders, water user groups themselves and members of local bodies. However it necessitates that the government field level bureaucracy is willing to provide the enabling environment and have trust in these community based institutions. After igniting the spark the government should take the backseat and let the campaign run on its own with only technical backup being provided by the government departments. It must be also pointed out that this requires appropriate leadership from the top field officers of the district who should have a vision and the drive to execute the vision as an action plan. The continuity of such officers is therefore essential for keeping up the momentum.

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5. Contacts

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Aniruddhe Mukerjee, 21.01.05
5.2 References