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A Study on Constraints in People's Participation in Integrated Watershed Development

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ABSTRACT

A study conducted in Ahmednagar district of Maharashtra, where the famous Anna Hazare's Ralegaon Siddhi was located, a series of constraints were identified in various stages of watershed development process. The major constraints were: lack of agreement on identification and prioritization of felt needs and unfelt needs, lack of conviction among some villagers to envisage the possible benefits to be accrued through watershed development activities in the initial stage, lack of technically qualified field assistants, inappropriate design of engineering solutions, neglect of technical matters in planning and design stage, lack of comprehensive understanding of the problem, field situation, appropriate technical solutions for watershed by government functionaries in planning stage, procedural delays in approvals, sanctions and fund disbursal, sanctioning power limitations and hierarchy issues, non-availability of funds at the time when most needed, and poor quality materials and hence poor quality soil conservation and check dams engineering works in the implementation stage. In the post-implementation stage, lack of post-implementation budgets for maintenance and sustainable management of watersheds was a major constraint. Among the suggestions given by respondents for better watershed management, the most important were: specific measures for human development including good and dedicated leadership, decision by consensus of all stakeholders, encouraging people to take own initiatives and not rely on government for everything, using community pressure for those who do not adhere to group decisions, empowering women with self help groups, and engaging youth in constructive activities. Among the economic and ecological measures, encouraging dairying to augment farm incomes, banning open grazing, tree felling, undertake massive tree plantation and among the water conservation measures, forming water cooperatives, using water judiciously and arresting flow of water wherever possible were suggested.

Key words: Constraints watershed development, people's participation, strategy, watershed management

INTRODUCTION

Ensuring people's participation was a basic necessity for watershed development programmes. Watershed development activities demand technical engineering solutions encompassing all private lands owned by the farmers across villages. They also demand a concerted action by all the stakeholders for integrated development and involve social action process and adoption of biotic and abiotic measures. For a watershed development project to be successful, several facilitating factors play a crucial role. Absence of facilitating factors poses a great challenge to implementing agents and stake holders. Constraints set in and the process of watershed development may get derailed loading to lesser success or even failures. Hence this study on 'Socio-economic Assessment of Participatory Watershed Development programme in Maharashtra' has taken one of the objectives as “the study on constraints and suggest suitable strategy for people's participation in watershed development'.

METHODOLOGY

The study was conducted in Ralegaon Siddhi village in Ahmadnagar district of Maharashtra. The Ralegan Siddhi watershed was selected purposively for the study as it is a successful case of participatory watershed development. Since it is located in Ahmadnagar district of Maharashtra state, both the state and district were selected purposively. The sample of respondents included 60 farmers from the successful watershed village, Ralegan Siddhi. The respondents were asked 'open ended questions' on the presence or absence of constraints and were asked to enlist factors, which have hindered the watershed development process. These responses were content analysed and ranked.

RESULTS AND DISCUSSION

Watershed development entails an integrated and comprehensive approach on a sustained basis over a long period of time. It involves adoption of many mechanical measures to conserve soil and water, biotic measures to conserve flora and fauna of the watershed ecosystem, agro-forestry, social forestry and silvipastoral systems, integrated development of the villages through socio economic development of agriculture, livestock management, livelihoods management, energy conservation, water use management and people's development including women's development through

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self help groups, farmers groups *etc.*

It has been seen from the previous research findings, effective watershed management involves many processes and stages of development that require specific special attention for better monitoring and evaluation purposes, as well as organizing people for concerted group actions for all-round development of the watershed (Gaikwad and Ingle. 2003, Falendra k. Sudan and Jagjit Singh 2003). Here an attempt has been made to discuss the constraints faced by the people. Using an interview schedule with open ended questions, farmer respondents were asked to mention the constraints that they faced at different stages of watershed development. The responses were content analysed and written down into small statements. Their frequencies and percentages were calculated. Based on the frequencies, they were also ranked. These are presented in Table 1.

Table 1: Constraints faced by farmer respondents of selected watersheds

Constraints	(n=60)		
	Frequency	Percent	Rank
Rapport building & social mobilization stage			
Lack of agreement on identification and prioritization of felt needs and unfelt needs (takes some time for all people to agree)	45	75.00	II
Lack of conviction among some villagers to envisage the possible benefits to be accrued through watershed development activities (especially people living on up stream of watershed)	40	66.66	IV
Planning Stage			
Lack of technical qualification, experience, dedication, seriousness and sincerity among field assistants	40	66.66	IV
Inappropriate design of engineering solutions not fit for the watersheds	38	63.33	V
Neglect of technical matters in planning and design stage (although discussed and decided in meetings and enlisted in minutes, no follow-up of minutes was done)	35	58.33	VII
Lack of comprehensive understanding of the problem, field situation, and appropriate technical solutions for watershed by government functionaries	30	50.00	VIII
Implementation Stage			
Procedural delays in approvals, sanctions and fund disbursal, sanctioning power limitations and hierarchy issues	50	83.33	I
Non-availability of funds at the time when most needed	45	75.00	II
Poor quality materials and hence poor quality soil conservation and check dams engineering works	42	70.00	III
Post-Implementation Stage			
Lack of post-implementation budgets for maintenance and sustainable management of watersheds.	40	66.66	IV

A cursory look at the table revealed that the constraints are presented in four sub-sections, based on the four stages of watershed development. The ranks were given according to the maximum frequencies for each constraint statement. These are discussed here.

Constraints during the rapport building and social mobilization stage

1. Lack of agreement on identification and prioritization of felt needs and unfelt needs (takes some time for all people to agree)

In the initial stage of watershed development activities, identification of problems and needs, and prioritizing them takes longer time. Since, the people in the upstream and downstream of a watershed have different situations and needs, it becomes very difficult for people to agree on some common minimum programme and objectives. Wrong analysis of the problem, suppression of crucial information by few people with vested interest, and lack of comprehensive understanding of the project functionaries are other related constraints faced by people in the initial stages. This constraint has been expressed by 75 per cent of farmer respondents and assumed second rank among all constraints. Thus, it can be seen as a serious constraint as it was perceived so by three-fourths of the respondents.

2. Lack of conviction among some villagers to envisage the possible benefits to be accrued through watershed development activities (especially people living in the upstream region of watershed)

Usually, the villagers in the upstream region of the watershed do such activities as soil conservation measures, while water harvesting was done by the downstream villagers. Thus, it becomes difficult to foresee the possible benefits that may get accrued over a period of time in a watershed. Hence, some villagers may not get convinced about the utility of the watershed development project and may not cooperate or participate in participatory watershed management activities. Lack of conviction has been perceived as a major constraint by about two-thirds of the farmer respondents and was assigned IVth rank among all constraints faced by farmers of the watershed.

Constraints during the planning stage

3. Lack of technical qualification, experience, dedication, seriousness and sincerity among field assistants

Another serious constraint was the poorly qualified field functionaries for the watershed works. In addition, the field staffs lack adequate technical experience. It has been found that the field functionaries are not at all serious in the execution of the planned and designed construction works. There was also lack of sincerity and dedication

among field assistants working for watershed development. This was perceived as forth constraint by about 66 per cent respondents.

4. Inappropriate design of engineering solutions not fit for the watersheds

Serious design problems and choice of inappropriate designs for engineering structures for soil and water conservation are the major constraints during planning stage of watershed development. This was perceived as a fifth major constraint by about 63 per cent respondents.

5. Neglect of technical matters in planning and design stage (although discussed and decided in meetings and enlisted in minutes, no follow-up of minutes was done)

Serious neglect of technical specifications, design parameters and other technical matters was perceived as a major constraint by about 58 per cent of respondents and ranked at VIIth among all the constraints. The respondents alleged that although all issues were discussed, decided and noted down in the minutes of the watershed committee meetings, adherence to the minutes of the meeting was seldom done and no follow-up action was also taken. In the meetings, most of the time was allotted, usually to financial matters and issues. Financial allocation and budgeting problems also croped up during planning stage.

6. Lack of comprehensive understanding of the problem, field situation, and appropriate technical solutions for watershed by government functionaries

During planning stage, the major constraints faced by people revolve around designing and planning for soil conservation and water conservation structures at appropriate places in the watershed, lack of comprehensive understanding of the problems, lack of adequate analysis of field situations and inappropriate choices made for technical and engineering solutions. This was one of the major constraints perceived by about fifty percent of respondents and this was ranked at VIIIth.

Constraints during the Implementation Stage

7. Procedural delays in approvals, sanctions and fund disbursal, sanctioning power limitations and hierarchy issues

Among all the constraints the most important constraint, as perceived by maximum number of respondents was procedural delays in bureaucratic hierarchical set up**.** This constraint has been ranked as number one by 83 per cent of respondents. There were very formal office procedures of form filling, getting approvals, and getting sanctions for all the works, which take long time at every level of bureaucracy. Fund disbursal usually happens after the season completes, or after the monsoons, causing heavy embarrassment to the field level functionaries, who end up with inordinate delays, incomplete engineering works, and unutilized funds (as they arrive very late). For every work in watershed development, sanctions were invariably needed at various levels and get delayed due to sanctioning power limitations. If soil conservation engineering project requires more funds, the file has to go to district magistrate and gets tangled up in procedural delays and often remains untraceable for long periods.

8. Non-availability of funds at the time when most needed

This was another major constraint that got ranked at second with a frequency of 75 per cent respondents. Usually, the funds were required at a time before the onset of the monsoon season, when engineering works and cement construction works could be completed. But due to procedural delays, funds will arrive at the work site office only after it was no more necessary. But when funds arrive, the field staff or watershed committee was not in a position to utilize them and return the funds as they cannot keep the funds for the next season.

9. Poor quality materials and hence poor quality soil conservation and check dams engineering works

During implementation stage, due to lack of supervision and monitoring by the watershed committee members and due to internal disharmony, the quality of works suffered due to use of poor quality materials. Misappropriation of funds was a usual feature in the watershed works, if proper care was not taken to monitor the progress and quality of engineering works. This was ranked at IIIrd as about 70 per cent of respondents declared this as a major constraint.

Constraints during the Post-Implementation Stage

10. Lack of post-implementation budgets for maintenance and sustainable management of watersheds.

In the post-implementation stage, lack of provision of funds was a major constraint.Usually, any engineering works get enough funds to complete the works. Once the construction works were completed, no provision was made to have some funding for further maintenance of the engineering works or any other works. This was perceived as a major constraint by 66 per cent of respondents and got ranked at IInd. This has impeded greatly the process of sustained development of the watershed.

Suggestions for evolving a strategy for better watershed management

Farmer respondents of the successful watershed villages were asked to give a few suggestions for evolving a strategy for better watershed management. Their responses were content analysed and their frequencies and percentages were computed and ranked. These are presented in Table 2 and discussed here.

Table 2: Suggestions given by farmer respondents for evolving a strategy for better watershed management

n=60

Suggestions	Frequency	Percent	Rank
Human Development Processes			
Good and dedicated leadership	55	91.67	I
Decision by consensus of all stakeholders	52	86.67	II
Encourage people to take own initiatives (and not rely on government for everything)	50	83.33	III
Use community pressure for those who do not adhere to group decisions	40	66.67	IX
Empower women with self help groups	34	56.67	X
Engage youth in constructive activities	50	83.33	XII
Economic and Ecological Measures			
Ban open grazing, tree felling	45	75.00	V
Undertake massive tree plantation	40	66.67	VII
Encourage dairying to augment farm incomes	42	70.00	XI
Water Conservation Measures			
Form water cooperatives	48	80.00	IV
Use water judiciously	42	70.00	VI
Arrest flow of water wherever possible	36	60.00	VIII

Human Development processes

The first set of suggestions were related to developing human resources for capacity building, leadership and group cohesiveness and for taking initiatives for sustainable group actions with collective social responsibility and accountability. Hence developing good and dedicated leaders in the community was considered as the most important suggestion by nearly 92 per cent of respondents and was ranked first.

Organising farmers into a watershed development committee for managing the village resources, designing and constructing engineering structures for soil and water conservation is another major suggestion given by the farmers. This group activity will facilitate group decisions by consensus of all stakeholders and put influential pressure on all group members for strict adherence to decisions agreed upon by all. Similarly, women can be engaged in forming self help groups to take care of those activities being handled by them, especially thrift, credit, dairying, home making, *etc.*

Youth needs to be organized and encouraged to utilize their time, energy and effort in a constructive manner for the welfare of the village society and for rural development (Korade *et.al.* 2003)

Economic and Ecological measures

In addition to enriching human resources in rural areas, some economic measures need to be taken for providing livelihood opportunities like encouraging dairying and other rural enterprises to help augment the rural people's incomes. Such measures would help in ensuring livelihood security for rural people.

Massive campaigns of tree planting would help in soil binding and reduce soil erosion through running water in addition to providing shelter for birds and acting as wind breaks and enriching the micro-climate of the watershed.

Banning open grazing would help protect the newly planted saplings and help in rejuvenation and increased growth of green grass in the pastures. This grass can be allowed to be taken away by each farm family, on a ration basis, for equitable distribution of natural resources, green grass. This will also help better animal husbandry through stall-feeding of cattle and buffaloes.

Water Conservation measures

The most important suggestion given by farmers was to arrest water from flowing away, wherever possible for enhancing ground water reserves, avoiding run-offs and soil erosion. The best way for better water conservation was to form water cooperatives or '*pani panchayats*' and encourage judicious use of water by all.

Constraints are presented in four sub-sections, based on the four stages of watershed development namely rapport building and social mobilization stage, planning stage, implementation stage and post implementation stage. In the initial stage of watershed development activities, identification of problems and needs, and prioritizing them takes longer time. Since the people in the upstream and downstream of a watershed have different situations and needs it becomes very difficult for people to agree on some common minimum programme and objectives (K. Palanisami and D. Suresh Kumar (2009). Usually, the villagers in the upstream region of the watershed do such activities as soil conservation measures, while water harvesting was done by the downstream villagers. Thus, it becomes difficult to foresee the possible benefits that may get accrued over a period of time in a watershed. Hence, some villagers may not get convinced about the utility of the watershed development project and may not cooperate or participate in participatory watershed management activities. There were very formal office procedures of form filling, getting approvals, and getting sanctions for all the works, which take long time at every level of bureaucracy. During implementation stage, due to lack of supervision and monitoring by the watershed committee members, and

due to internal disharmony, the quality of works suffered due to use of poor quality materials. Usually, the funds were required at a time before the onset of the monsoon season, when engineering works and cement construction works could be completed (Singhal, C. S. (1999) . But due to procedural delays, funds will arrive at the work site office only after it was no more necessary. Once the construction works were completed, no provision was made to have some funding for further maintenance of the engineering works or any other works.

Farmer respondents of the successful watershed villages were asked to give a few suggestions for evolving a strategy for better watershed management. The first set of suggestions were related to developing human resources for capacity building, leadership and group cohesiveness and for taking initiatives for sustainable group actions with collective social responsibility and accountability. Hence developing good and dedicated leaders in the community was considered as the most important suggestion by nearly 92 percent of respondents and was ranked first. Organising farmers into a watershed development committee for managing the village resources, designing and constructing engineering structures for soil and water conservation is another major suggestion given by the farmers. Similarly, women can be engaged in forming self help groups to take care of those activities being handled by them, especially thrift, credit, dairying, home making, etc. Banning open grazing would help to protect the newly planted saplings and help in rejuvenation and increased growth of green grass in the pastures. The most important suggestion given by farmers was to arrest water from flowing away, wherever possible for enhancing ground water reserves, avoiding run-offs and soil erosion.

CONCLUSION

Major constraints identified through study were related to bureaucratic procedures, availability of funds when most needed and lack of post implementation budgets. They were mainly related to the government procedures of fund sanctioning and delay in it. One of the important constraints faced in the village was apprehension of upstream farmers about possible benefits accruing them. There was problem initially on agreement among common problems among upstream and downstream farmers for prioritizing the needs. It can be noted that majority of the constraints were related to procedural delays, there were no problem about functioning of different water cooperatives and people are taking good care of watershed projects.

Among the major suggestions given by the respondents were developing good and dedicated leadership in the village, so that it can take care of different activities in the village as it is evident from the leadership of Shri Anna Hazare from this watershed village. Other suggestions given were ban on tree felling, ban on open grazing, planting of trees on community land, formation of women SHGs, arresting flow of water wherever possible which will help in preventing soil erosion. These suggestions were already being implemented by the farmers in Ralegaon Sidddhi village, so these can help in implementing watershed programmes successfully.

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