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Why does Community Participation fail after the State Withdraws? Understanding Watershed Management in Tamil Nadu, India

Watershed protection and enhancement are vital aspects of rural development work in India. However, many community-based watershed management projects do not produce the desired results and often fail, especially after the state withdraws its support. A new SANDEE study looks at why this is the case and what should be done. The study finds that greater success is likely if community groups are crucially dependent on wells for irrigation, are better informed about post-project requirements and are given more control over funds and overall project management. Leadership is critical to sustaining interest in community activities.

The study is particularly significant because community involvement in the management of natural resources is increasingly important in many developing countries. In South Asia, government agencies are adopting participatory approaches to the management and conservation of natural resources such as forests and fisheries. However, although the significance of collective action is well recognized, less is understood about how this can best be supported and sustained.

WATERSHED MANAGEMENT IN COIMBATORE

The study is the work of D. Suresh Kumar, from Tamil Nadu Agricultural University, India. It is based on information collected from 12 villages that are involved in watershed management projects in the Coimbatore district of Tamil Nadu, India. The paper examines the factors that affect collective participation in these projects.

Coimbatore is a rural district. The major crops grown in the area include sorghum, cotton, sugarcane, maize and coconut. Of the total cropped area, almost 57% is irrigated and wells are the chief source of water in the district. Over the years, there has been a general and significant decline in water levels across the whole of the area. This is attributed to the indiscriminate pumping of groundwater and has resulted in crop patterns changing and in the failure and abandonment of wells. Ultimately water level decline has been responsible for the out migration of farmers. This unsustainable situation led to the creation of watershed development programmes in the area and investments have so far been made in the improvement of over 40 micro-watersheds.

A variety of strategies are being implemented to protect and enhance watersheds in Coimbatore. Soil and moisture conservation measures (such as contour bunds, summer ploughing, land leveling and grass plantations) are undertaken in private agricultural lands; village common lands are improved through drainage treatment measures such as check dams and by developing water resources through percolation ponds and by renovating traditional water storage tanks ; and afforestation programs are undertaken. Relevant training is also given periodically to farmers.

WHAT MAKES COMMUNITIES PARTICIPATE?

Watershed management projects in the area (and in India generally) are usually set up and implemented by a hierarchy of government agencies with the support and assistance of community groups.

This policy brief is based on SANDEE working paper no. 22-07, 'Can Participatory Watershed Management be Sustained? Evidence from Southern India' by D. Suresh Kumar from Tamil Nadu Agricultural University, India. The full report is available at www.sandeeonline.org

THE WEALTHY, PARTICIPATION AND STATE WITHDRAWAL

The link between wealth and collective action presents some important policy dilemmas. Wealthy user groups appear to contribute to increased collective action during the project period when the state agency is present. However, this relationship is reversed when the state agency withdraws its support. Kumar speculates that when the project implementation agency withdraws access to power and panchayat or district level leadership also declines. Wealthier user groups, who have opportunities to improve their land in other ways, then lose interest in watershed activities. However, for poorer groups, the benefits of watershed structures continue to prevail. This suggests that during the implementation stage, it is important to ensure that poorer and less influential groups are given the required training.

After the project has been implemented, this support is then normally withdrawn and community institutions are meant to take over the project's on-going maintenance.

It is clear that watershed management in Coimbatore benefits farmers in many ways. For example it helps with groundwater recharge and prevents soil and water erosion. Overall watershed management activities have increased the area under irrigation and have led to crop diversification. Despite this, there have been a number of critical problems with community participation in the watershed management schemes in Coimbatore. A recent evaluation study of 15 watersheds in the district found that the community participation rate was 55% at the planning stage, 44% during project implementation and 27% at the maintenance stages. In several watersheds, important water conservation structures (such as check dams) are not maintained due to a lack of funds and a lack of co-ordination amongst locals. Many community-based watershed management organizations have simply become defunct after the initial implementation phases of the projects they were set up to manage.

If watershed management is to succeed and help farmers to grow crops in a sustainable manner, it is vital to find out why collective action fails in the post-implementation period. In order to answer this question Kumar's study looks at all stages of watershed management in Coimbatore and assesses the factors that determine the level and effectiveness of collective action at each stage.

USER GROUPS SUPPLY THE ANSWERS

To get the necessary data for this assessment the activities and opinions of about 60 User Groups were studied. A user group is made up of those local residents that are involved in watershed management activities and benefit from them. Thus, most watershed management programs set up a user group to manage a particular aspect of the program – for example, there are user groups for each check dam or percolation pond that is built. The main functions of the User Groups in Coimbatore are to monitor construction activities, collect and mobilize contributions, and resolve possible conflicts. Between them, the User Groups that took part in the study are involved in the full range of watershed management activities.

User group leaders and members were interviewed regarding the watershed management activities their communities undertake. Information was also gathered from the Watershed Committee, and Project Implementing Agencies. In addition, interviews were held with village elders and leaders to find out about village history and local resource management issues and institutions. Community participation was measured by assessing how locals contribute in terms of time, cash, labour and other materials.

The study also assessed various other socio-economic and environmental factors that were thought to influence the participation of farmers. Three successful user groups were examined as case studies.

TABLE : USER GROUP CONTRIBUTIONS TO DIFFERENT STRUCTURES IN COMPLETED WATERSHEDS

Structure	(Rupees / Year) Completed Watersheds	
	During Project Period	Post-project Period
Percolation pond		
Construction of pond	1537.69	..
Desilting of pond	112.12	66.94
Reconstruction/repairing of surplus weir	19.68	..
Bund strengthening	3.98	10.68
Total maintenance	*135.78*	*77.62*
Check dams		
Construction of check dam	689.58	..
Desilting	..	..
Reconstruction/repairing of surplus weir	..	..
Total maintenance	..	..
Renovation of tanks		
Desilting of pond/tank	997.32	101.78
Reconstruction/repairing of surplus weir	..	2.22
Bund strengthening	..	7.11
Planting trees	..	..
Total maintenance	*997.32*	*111.11*

COLLECTIVE FAILURES

Despite the benefits of watershed management, it is clear that the reported failures of collective action represent a true picture of what is happening on the ground. For instance, it was found that an average User Groups participates in 3.76 meetings per year during the implementation period of a watershed improvement project. In contrast, they only participate in 0.33 meetings per year in the post-project period. Similarly, the average participation rate at meetings falls dramatically when the implementation phase ends: from 78 per cent to 17 per cent.

There is a similarly negative picture in terms of expenditure and practical involvement. After a programme's initial phase is over, average maintenance expenditure per User Group decreases by about 40%. Furthermore only 27 per cent of user groups continue to undertake some form of maintenance activity after the initial phases of the projects they are involved in have finished.

WHY DOES COMMUNITY INVOLVEMENT CRUMBLE?

It is clear that cooperation on watershed management is most likely to fail in areas where there is less resource dependence (i.e., where there are only a small number of wells that need to be replenished) and where there is not a homogeneous social group involved in the work. The success of collective action is also dependent on the size of the User Group. The best group size is found to be between nine and 12 members. This is a participant level that allows for the effective monitoring of individual actions and also provides enough members to undertake different maintenance activities.

In addition, community participation fails more frequently when there are no other formal or informal organizations involved. This is an interesting finding and suggests that where multiple organizations are involved, local people develop important complementary skills that help them sustain collective action throughout a project's lifetime.

LEADERSHIP MATTERS

The poor maintenance of watershed development structures in the post- project period can be attributed to two main factors. Firstly it is clear that there is widespread failure or collapse of those institutions that are set up to manage watersheds. In particular, Watershed Associations,

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Author
D Suresh Kumar
Editor
Rufus Bellamy
Series Editor
Priya Shyamsundar

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which are supposed to lead in the post-implementation phase of watershed programs, often become inactive. Secondly it is clear that there is a lack of clear guidelines on how to operate Watershed Development Funds - the main financial mechanism created to keep watersheds going.

There are several reasons for this state of affairs. Perhaps the most important is lack of leadership. As mentioned, leadership in the implementation phase of watershed management is in the hands of various government agencies. Leadership in the post-implementation period is supposed to lie with the *panchayat* leaders. However, if a new *panchayat* chairman is elected who has not been part of the initial phase of a watershed project, then support for the scheme often falls away. Furthermore many project secretaries, who are supposed to manage day-to-day activities, are not paid and often cease their activities prematurely.

Essentially in the post-implementation phase, there is often a leadership vacuum and few of those involved are ready to take on increased responsibilities. Another problem lies in the fact that wealthier user groups, although active in the implementation phase, often reduce their involvement in the maintenance phase. This is thought to be due, in part, to the fact that wealthy user groups are less willing to give up their (more valuable) time to these projects when access to the government no longer exists.

EMPOWERING COMMUNITIES FOR SUCCESS

Overall it is clear that the User Groups in watershed development projects are not given adequate power to make decisions or control finances. This is despite the fact that the members of these groups bear the costs of collective action. If the User Groups are given these powers, then there is a possibility that the community involvement could become more successful.

Because communities are very ill-informed about the availability watershed development funds, it is recommended that these funds should be jointly managed by user groups, village *panchayats* and the District Rural Development Agency (DRDA)/ District *panchayats*. A joint account could be operated by the three agencies. This will bring a number of benefits: it will create responsibilities for all three groups and involve beneficiaries directly; it will engage the local leadership; and, it will bring in state accountability. Of course, setting up such a system will not be without challenges.

SANDEE | P.O.Box 8975 EPC-1056 | Kathmandu, Nepal
Tel: 977-1-552 8761, 552 6391 | Fax: 977-1-553 6786
E-mail: info@sandeeonline.org
Website: www.sandeeonline.org