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## **ENHANCING RURAL LIVELIHOODS THROUGH PARTICIPATORY WATERSHED DEVELOPMENT IN INDIA**

**Cathryn Turton and John Farrington**

*India is remarkable not only in the scale of its wastelands, and in the volume of government funds committed to reversing degradation, but especially in the attempt to link environmental improvement and poverty reduction. The government's 1994 Guidelines for microwatershed rehabilitation envisage a high degree of participation and local autonomy in the design and implementation of rehabilitation. This paper reviews experience to date in putting the Guidelines into practice.*

### **Policy recommendations**

- The watershed Guidelines of the Ministry of Rural Areas and Employment (MoRAE) are an important and imaginative initiative towards institutionally and ecologically sustainable enhancement of rural livelihoods. Donors should work closely with the Union and State governments in their implementation and avoid creating parallel delivery systems.
- Problems lie not so much in any shortcomings in the Guidelines themselves as in the capacity at different levels to implement them:
  - i. Watershed development (WSD) is not yet being planned strategically in the context of other rural development initiatives;
  - ii. At the Project Implementation Agency (PIA) level, funding is insufficient for NGOs to attract and maintain quality staff; government PIAs lack adequate skills and have inappropriate incentive structures;
  - iii. At the community level, there is inadequate effort to engage weaker groups in the process of WSD. To provide the poor and women with an equitable share of benefits requires more effort and vigilance than most implementing agencies can provide;
  - iv. Procedures for selecting (and de-selecting) villages and PIAs remain weak.
- WSD is not a panacea: it works best where it is integrated with other means of enhancing livelihoods, and needs to be tailored to local agro-ecological, socio-economic and infrastructural conditions. Banks, line departments, etc. need to be engaged in this wider context. Donors can best pilot new solutions to these difficulties. Enclave projects having parallel delivery systems are an

irrelevance.

### **Land degradation and the public sector response**

Through a range of schemes, projects and programmes falling under three central government ministries (agriculture, forests and rural development), the Government of India (GoI) is currently investing some £300 m./yr in an effort to enhance livelihoods in an institutionally and ecologically sustainable fashion through the rehabilitation of microwatersheds (each generally of 500 to 1,000 hectares).

This major new initiative recognises that the areas of wasteland in rainfed areas of India are large (170 m. ha in some estimates) and growing; that there is a close two-way relationship between poverty and degradation; and that a focus over the last three decades on 'Green Revolution' irrigated areas has led to neglect of the rainfed areas.

A major review by Kerr *et al.*, (forthcoming) notes that the more participatory approaches (often led by NGOs and often on a small scale) have been more successful in enhancing livelihoods in an equitable fashion.

The Watershed Development Guidelines of October 1994 drawn up by the MoRAE, govern around one-third of GoI expenditure on microwatersheds and represent a major effort to implement the strengths of NGO approaches on a wider scale. They also responded to concerns over the lack of consistency of different existing approaches, and over inadequate adaptation to local biophysical and socio-economic conditions. They are innovative in three main respects: (i) in their devolution of decision-taking power to district and village levels; (ii) in the financial allocations made to local level organisations; and (iii) in their provisions for partnerships between government, NGOs and people's organisations. This paper focuses especially on the MoRAE Guidelines. It draws on a recent study in Andhra Pradesh, Madhya Pradesh and Orissa (Turton *et al.*, 1998).

### **New institutional structures**

In pursuit of these objectives, the Guidelines envisage new arrangements for channelling funds and managing projects (Figure 1). The District Rural Development Agency (DRDA) or *Zilla Parishad* (ZP—district level council) have overall responsibility for programme implementation in the district. They appoint a Watershed Development Advisory Committee to advise on issues such as the selection of villages, training and monitoring. Project Implementation Agencies (PIAs) are selected by the DRDA/ZP and are responsible for appointing a Watershed Development Team (WDT) of four members representing disciplines such as agriculture, engineering, life sciences and social work. The WDT works with the communities in planning and implementing the watershed programme. Each WDT is expected to handle 10 microwatersheds.

The Watershed Association (WA) represents all members of the community who are directly or indirectly dependent on the watershed area. The WA appoints a watershed committee (WC) consisting of representatives of user groups, self help groups, the

*gram panchayat* (elected village assembly) and the WDT. Each committee has a paid secretary who maintains the records and accounts.

Funds flow directly from GoI and state government to the DRDA/ZP and are allocated at the rate of Rs3,000 to 5,000/ha (\$1=Rs43) according to agro-ecological zone. The most common provision is Rs4,000/ha. For a typical microwatershed of 500 ha, this equates to an expenditure of Rs2,000,000 which is spent over four years in the following manner: (i) entry point activity: five per cent; (ii) community organisation: five per cent; (iii) training programme: five per cent ; (iv) administrative costs of PIA/committee: 10 per cent; and (v) watershed works: 75 per cent. Villagers are expected to contribute a minimum of five per cent for community works and 10 per cent for work on private property (five per cent in case of scheduled castes/scheduled tribes and persons identified as below the poverty line). An amount equivalent to these community contributions is drawn from the watershed budget and deposited in a separate fund for future operations and maintenance of community assets.

Community participation is central to the watershed programme and the Guidelines have laid down a detailed planning process. Each WDT has to conduct a participatory rural appraisal (PRA) to identify potential programmes and concerned user groups. This process leads to the development of a watershed development plan, containing details of various activities, lists of user groups, funding requirements and users' contributions. The plan is approved by the WA and then submitted to the DRDA through the PIA.

Evidence from the field (Turton *et al*, 1998) identified much enthusiasm for the Guidelines, and in some cases, practical adaptations to suit local requirements. However, it also indicated potentially severe local-level implementation problems. The remainder of the paper suggests how these might be overcome.

### **Institutionalising participation and partnerships**

Operationalising the concept of participation brings many challenges to PIAs, district administration, *panchayati raj* institutions, line agencies and the communities themselves. It implies fundamental changes in conventional roles and responsibilities.

There are wide differences in the level of staffing, skills, experience and commitment of all PIAs, as well as some systematic differences between government and NGOs in their mode of operation (Box 1).

#### **Box 1. Strengths and weaknesses of government and NGO PIAs**

##### **NGO**

Strong in social mobilisation  
Conceptually stonger with participatory approaches  
Closer and more equal relationship with people  
Flexible and adaptive to local situations

##### **Government**

Strong in technical competence  
Have an official standing with the community  
Clear lines of accountability

##### **BUT**

|                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>BUT</b><br/> Weak in technical competence—<br/> unavailability of technical staff in the<br/> open market<br/> Poor quality and high turn-over of<br/> technical staff due to poor conditions and<br/> temporary nature of employment</p> | <p>Conceptually oriented to top-down<br/> approach; slow to gain confidence of<br/> villagers and lack of flexibility<br/> Emphasis on physical and financial<br/> targets<br/> Limited grasp of participation, 'process'<br/> and partnerships<br/> WDT members live far away in district<br/> head-quarters and towns, are rarely full-<br/> time and are frequently transferred<br/> Limited capacity to apply technical<br/> knowledge to local circumstances and<br/> build on indigenous practices</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Many government PIAs have only two or three members, whilst others are made up of part-time members, many of whom live in district head-quarters, sometimes over 100 kilometres from the watershed. More fundamental problems are shortcomings in the incentive and reward structures and confusion over lines of accountability, status and allowances (Box 2).

| Box 2. Problems faced by government PIAs in Jhabua                                                                                                                                                                                                                                                                                                                                                           |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                  | <i>Solutions</i>                                                                                                                                                                                                                                                                                                                                                                        |
| <p>No full-time involvement</p> <p style="padding-left: 40px;">Reporting &amp; accountability<br/>to parent dept.</p> <p>HQs at different places</p> <p style="padding-left: 40px;">Travel/subsistence<br/>allowances inadequate</p> <p>Weak team building</p> <p style="padding-left: 40px;">Poor motivation</p> <p>Lack of job clarity</p> <p style="padding-left: 40px;">Weak lines of accountability</p> | <p><b>strong<br/>coherent<br/>WDT<br/>does not<br/>exist</b></p> | <ul style="list-style-type: none"> <li>• Team HQ should be at Block level</li> <li>• Capacity building needed at WDT level (team building, PRA, project management)</li> <li>• Develop incentive structures</li> <li>• Salary from parent department</li> <li>• Allowance from project</li> <li>• Priority for promotion</li> <li>• Reporting procedure from project officer</li> </ul> |

The main problems faced by NGOs are the inability to attract and retain appropriately qualified staff, particularly on the technical side. This is largely due to insufficient levels of overheads provided for in the Guidelines. Of the average Rs2,000,000

available for a microwatershed of 500 ha, 80 per cent is for the cost of works and the remaining 20 per cent for administrative overheads. Of this latter, Rs50,000 is allocated for the salaries, travel and daily allowances and office costs of PIA/WDTs, allowing Rs500,000 for one PIA working in 10 microwatersheds. At a salary of Rs3,500, a four person WDT costs Rs168,000 per annum. Over four years, this equates to Rs672,000—well over the Rs500,000 permitted.

Other problems apply to both government and NGO PIAs, such as the role and status of the social scientist within WDTs or the difficulty of recruiting female staff. Government PIAs can rarely draw these in from other departments. Furthermore social scientists are poorly paid in relation to other WDT members and it is rarely made clear whether the background needed by social scientists is in community mobilization, home economics, or wider aspects of social science.

One conceptually appealing solution is to have PIAs made up of members from NGOs and government, or to have NGO and government PIAs work together in some way. However, the Guidelines encourage neither of these possibilities. During the field survey, DRDAs expressed a strong preference for NGOs as PIAs. This has two dangers: one is that there are not enough good NGOs to take on all the work; the other is that funds under the Guidelines will become little more than 'grants-in-aid' for the voluntary sector. The opportunity for mainstreaming participatory approaches within government will be missed.

## **Project implementation at the village level**

### **Baseline conditions and village selection**

The Guidelines do not contain clear or consistent criteria for the selection of watersheds for rehabilitation (or indeed de-selection, if villagers fail to meet requirements set out in the Guidelines). Transparent selection procedures for village selection are essential to identify those areas most affected by degradation, to take account of socioeconomic conditions and to limit the scope for political directives. The Indo-German Watershed Development Programme has developed detailed criteria (Farrington and Lobo, 1997) which merit consideration. Field observations suggest that social harmony is a fundamentally important criterion (Turton *et al*, 1998).

Nor is there any clear policy over clustering versus dispersal. The former offers advantages of reduced travel time and of matching physical with administrative boundaries. It also allows the PIA to maintain a presence in the area, so as to be on hand if post-rehabilitation difficulties or disputes arise.

### **Institutional development at village level**

In all areas, villagers perceive a real difference between watershed development under the 1994 Guidelines and other government programmes. In the words of one WC chairman, 'this programme is different because we are doing it ourselves, we are writing the cheques and we are ensuring the quality of work'. WCs are functioning and familiar with accounting and committee management procedures. The 'participatory approach' however also brings new challenges. Watershed activities such as bunding, construction of water harvesting structures, tree planting etc. have been carried out by government for many decades, but farmers have rarely been asked

to bear any costs. Many PIAs find it difficult to motivate communities to contribute the expected five to ten per cent to costs.

Wider problems of 'ownership' and representation also exist. The Guidelines envisage a period of general awareness raising, followed by the establishment of user groups and self help groups. Representatives of these, together with other villagers go forward to form the WC, which, together with the WDT, prepares the rehabilitation plan. In practice, however, the concept of user and self help groups is poorly understood and little time is permitted under the Guidelines for group formation, so that the committee is rarely representative.

Women, particularly, are poorly represented at all levels. There are few women officers in the DRDAs, WDTs or PIAs and, although women may be represented proportionately in the WAs, this is not translated into adequate representation on the committees. Furthermore, physical representation is no guarantee that the interests of weaker sectors will be respected. This requires considerable skill in building consensus among these groups, and skills in designing and implementing joint action. Ways forward include:

- increasing the numbers of female officers in all the formal agencies and bodies;
- increasing gender and equity awareness among officers;
- the development of skills (eg in consensus building, leadership, conflict resolution) among the weaker sectors so that they have a reasonable chance of defending their interests in village committees. 'Focus group' activities such as women and child health care programmes; informal education; and/or economic activities such as savings and credit clubs have been developed by some NGOs over one or more years prior to watershed rehabilitation, and appear to be an effective response to this need;
- the establishment of some external source of advice and mediation so as to maintain a continuing check on who gains and who loses from watershed rehabilitation.

Such measures will only succeed if they are accompanied by a better understanding of the conditions which make it easier for women officers to operate in the field; gender-positive recruitment policies and gender-sensitisation during training of all officers; and external support while focus groups are formed. It is also clear that the four year time-frame envisaged for planning and implementing watershed rehabilitation needs to be augmented by a prior year so that focus groups can be developed.

### **Social and equity issues**

There is clear evidence that the rehabilitation phase creates employment for the poor which has reduced seasonal out-migration. In some older, well-managed watershed development projects, increased natural resource productivity has also created employment, but it is still too early to tell whether this will happen under newer projects.

In reality, there are few cases in which strategies for allocating rights, responsibilities and benefits—especially in relation to newly-productive common land—have been developed at the rehabilitation stage although, under the Guidelines, the WC/WDT

are required to plan this. Furthermore, little thought has been given to understanding existing institutional arrangements within the village for managing common land. The problem is particularly serious where common land is limited and communities are highly stratified, such as Andhra Pradesh. Here, the development of common lands leads to the loss of access to grazing areas (which particularly affects the landless), forcing villagers to sell livestock or switch to cut and carrying systems—thereby increasing the workloads of women. However in areas with abundant common land and more homogenous community structures, the development of common land has been more successful.

### **What after four years?**

The Guidelines have little to say on how the post-investment phase is to be managed. The assumption is that the village organisations will be capable of maintaining both on-going and new activities when the PIA withdraws after four years. The village watershed fund is intended for the maintenance of structures and investments on common land, with farmers responsible for investments on private land. However, there are few ideas as to how the fund might be managed in the longer term to generate a continuous income, such as its use as a revolving fund and/or by charging for the collection of materials from the rehabilitated commons.

It is becoming clear that (especially) NGO PIAs have much to contribute to institutional sustainability beyond the four year implementation period. They can assist with conflict resolution and forge long-term development links with banks, line departments and the range of other agencies concerned with livelihoods based on (or beyond) the production, processing or marketing of agricultural or NR products. Both a 'clustering' approach and additional resources should be provided from government for this. However, a clearly defined exit strategy is essential.

### **Cross cutting issues**

At a broader level, the watershed programme is being undermined by inadequate attention to two key issues: (i) human resource management; and (ii) the development of an effective monitoring system.

#### **Human resource management**

Overall, there is an urgent need for a major programme of capacity building at all levels, with a focus on improving awareness of participation, equity and gender issues among government staff, raising technical capacities of NGOs and providing both technical and management training to village level institutions. WSD does not yet feature adequately in the curricula for agricultural undergraduates, nor in the in-service training of government staff. Little progress will be made on those fronts until curricula are revised, trainers themselves trained, and the states more fully drawn into WSD so that their staff engage in the training that is offered. This leaves the more intractable problem of providing adequate incentives to government staff, and supporting the behavioural change needed for participatory WSD to succeed.

#### **Monitoring the watershed programmes**

Effective monitoring is made difficult by the multiple objectives of the programme which include equitable economic development and the restoration of ecological balance. The Guidelines cover in some detail the technical and social criteria by which projects can be assessed. However, in reality, monitoring by DRDAs or PIAs is

limited to the recording of inputs (primarily financial flows) and physical outputs. No information is being collected on qualitative processes such as participation or social inclusion.

For the GoI, monitoring should potentially allow judgements on performance at programme level. This will be reflected in indicators of environmental stabilisation or improvement, replicability, increased economic benefits and access to them by weaker sections and women. However, in reality, GoI's interest rarely extends beyond designated financial or physical targets, primarily because government funding is not dependent—in the short-term at least—on wider biophysical or socio-economic impact. Levels of interest in monitoring at state and district levels are even lower: few of the advisory committees created at these levels function fully. The Guidelines channel funds from central to district levels, thereby bypassing the states, so contributing to their limited commitment.

At local level, monitoring can become a powerful force for participation and democracy fully compatible with the spirit of the Guidelines. In particular, it provides an opportunity for:

- people to participate more fully in tracking physical and socio-economic progress and to propose course corrections;
- people to hold PIAs and other agencies to account by ensuring financial transparency;
- information collected at village level to feed into higher-level course-corrections and strategic planning.

In practice, the commitment to substantive monitoring was found to be stronger here than at higher levels. Many WCs were able to produce minutes of meetings and give informal status reports and in some cases, report on physical impacts such as the depth of the water in wells. Local-level monitoring could be strengthened by widening the range of indicators to include for example the regeneration and offtake of trees and grasses on common land, and by erecting easily-understood display boards to show progress.

## **Conclusions**

Overall local-level impressions of the Guidelines are positive:

- they are a unique attempt to mainstream participatory approaches in the public sector;
- they are well-known—and welcomed—by those concerned;
- funds available under the Guidelines offer a rapid means of expansion.

However, some perspectives need to be modified and a number of difficulties overcome. These include:

### **Realistic expectations—poverty alleviation and livelihoods**

Two issues are central here: first, an improved natural resource base can contribute to enhanced livelihoods for a growing rural population but is not a panacea; second, even a moderate degree of equity requires high levels of social organisation and an



ability among women and the poor to articulate their requirements, together with continuing vigilance to ensure that their rights are not overridden.

Expectations therefore need to be more sober and other measures introduced within a long-term strategic perspective, to strengthen social organisation among the poor and women prior to watershed rehabilitation, to augment the funds generated by people themselves during rehabilitation by 'matching' contributions from government, and to link them to a wider range of economic and social opportunities beyond the four year rehabilitation period.

### **From watershed grants to investment funds**

With a longer-term perspective, the maintenance fund established through people's contributions could be seen as the beginnings of a core fund for investment in and beyond WSD which could attract further contributions from government, or serve as a basis for negotiating with banks.

### **Strategic thinking at state and district levels**

There is a need for a broader approach in which watershed rehabilitation is promoted within a strategic context of rural development. Four government WSD initiatives are currently covered by the 1994 Guidelines, having different provisions and reporting requirements. This leads to confusion and distortions, making harmonisation among them highly desirable.

Furthermore, the states need to be more strongly involved in planning watershed development in the context of the various other rural development initiatives they undertake, in the prioritisation of areas for rehabilitation and the provision of services by line departments. Stronger links between national, state and district levels would also be of benefit in the design and implementation of training, selection and secondment of staff; cross-learning among districts and states; and monitoring and evaluation.

### **Roles for donors**

Donor approaches are highly variable: some prefer the flexibility of working with NGOs (at the risk of providing 'models' which cannot be scaled up by government); others work closely in support of government initiatives. All are attracted by the focus on poverty alleviation and environmental rehabilitation.

Central government funding for watershed development is many times larger than that from all donor sources combined. There are strong arguments that donor initiatives should be designed primarily to support improvements in the effectiveness and efficiency of state and national government programmes, including: (i) support for a programme of capacity building at all levels; (ii) support for cross-learning across projects; (iii) strengthening monitoring; (iv) strengthening strategic planning at the state and district levels. 'Enclave' projects having completely separate delivery systems have little to offer in this context.

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