Participatory Approaches to Management of Local Resources in South India[1]

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In India, particularly South India, the past few years have witnessed a growing movement towards people's involvement in the restoration and management of natural resources. Much of this activity has been brought about by the pioneering work of NGOs, particularly Myrada, a large NGO based in South India. Today there are several participatory projects, each aiming to build up rural people's capacities to be effective partners in the development and management of natural resources. The programs are mainly concerned with the rehabilitation of wastelands, ancient tank irrigation systems, degraded forests and micro-watersheds.

This paper focuses on experiences from micro-watershed development programs in the semi-arid and drought-prone areas of the southern states of Karnataka and Andhra Pradesh. It examines the programs' "community organization" approaches, or the building up of effective people's institutions within the watersheds, and the introduction and application of participatory rural appraisal (PRA) methods to micro-watershed development.

ORGANIZATION OF WATERSHED GROUPS

From the point of view of program management, the shift from "village" to "watershed" as the unit of development was significant because it sharpened its focus to produce a more integrated and scientific approach to developing the habitats of communities as a way of helping them achieve their own development. But when it came to implementing this approach, it was realized that unless the communities themselves were better organized and developed, real and sustainable habitat development could not take place. Since the initial thrust of watershed development does not necessarily correspond to the village land area, this gives rise to complexities in helping the community to organize itself into functional groups within the watershed.

The Participative and Integrated Development of Watersheds (PIDOW) Gulbarga project, a collaboration between the Swiss Development Cooperation, Government of India, and Myrada, gives an idea of the nature of this complexity.

Here, several large groups (of up to 136 farmers) had to be divided into smaller groups to become functional. This process is common in watershed projects and is facilitated by NGOs who encourage the groups to meet regularly (weekly or fortnightly) in the evenings. These evening dialogues are directed not only toward building awareness of watershed ecology and resource management, but also toward an understanding of new types of institutions being developed, their roles and functions. The meetings help foster cohesiveness and cooperation. With more vulnerable groups such as women, tribal and landless people, the non-formal education programs aim to increase awareness about their rights and deprivation, and to assist them to realize their own potential to break out of their existing situation.

CREDIT MANAGEMENT PROGRAMS

Among the different roles that watershed groups play, is the important one of "credit management". Credit is a widespread and critical need of people in the area. Watershed groups are encouraged to promote savings by their members. This creates resources in the form of a common fund and also encourages the habit of thrift among the people. Slowly, the situation is changing from one where small, marginal farmers and landless people borrow from money lenders and landlords at exorbitant interest rates, to one where, through their watershed groups, they are able to receive matching grants for savings incentives, mobilize grants and subsidies from the government, and lobby banks for group loans. Various income generating programs and the creation of individual and group assets in the form of trees, soil, water conservation structures, and other land productivity improvements further encourage this process of capital formation.

People are facilitated to manage credit on their own. Their management systems consist of a combination of their own traditional rules and regulations, supplemented by some "outside" systems such as cash books, registers, book keeping and accounting tools, for which some training is given. Experience shows that common funds tends to be managed very efficiently by its members in many ways including: a) pioritizing borrowers, b) determining legitimate purposes for loans, amounts to lend, and interest to be charged, and c) in recovering loans.

Credit management is a core activity of the watershed groups and is extremely important in both restoring the resources of the watershed, and in managing them in a creative and sustainable way. The groups also become instruments of change. With better organization, awareness, and increased confidence, they begin to place demands on the government system, and form an appropriate mechanism by which government inputs can be channeled and managed to develop rural areas.

PARTICIPATORY RURAL APPRAISAL METHODS IN NATURAL RESOURCES MANAGEMENT

Since the first trial use of rapid rural appraisal (RRA) methods in 1989 under the Myrada PIDOW Gulbarga Project, these and participatory rural appraisal (PRA) methods have provided the framework and tools for analysis and understanding of rural people and their environment. A typical PRA exercise for planning a watershed development program is held over three days.

Day I: Warm Up

The objective of the first day is to establish good rapport between the project and the village. Outsiders familiarize themselves with the village, the villagers, and the work which the villagers do. Sometimes they also engage in common village tasks, like helping in the harvest, learning to build houses, etc. The stress is on attitudes and on appropriate interviewing. Villagers are

briefed about the program and consulted on timing of the discussions. The outsiders identify key resource persons among the villagers. A few preliminary exercises are held which may include *time lines, trend diagrams,* and *historical transects.* Sometimes *seasonality or matrix ranking* exercises are initiated. The seasonality exercise is important, because it indicates periods when villagers may be free to carry out possible additional activities, for example, forestry. This kind of "fine tuning" is essential from the point of view of people's participation in the program. Similarly, the matrix ranking exercises for the case of trees, helps to establish the species mix in any forestry program according to the villagers' preferences.

Day II: Exploratory

On the second day, groups of outsiders and villagers enter into a detailed study of the watershed. "Sweeping" or "combing" transects are carried out, whereby groups of outsiders comb different sections of the watershed with farmers who have land in that area. In the case of forests, which are almost invariably populated by tribal people, the study is done with tribal villagers as guides.

Transects help to locate and facilitate the discussion of problems and opportunities with each individual farmer on his or her land and in the watershed as a whole. In many cases, it has been found that land records are out of date or that farmers do not have the title deeds for the land they are cultivating. This assumes particular significance in government-implemented programs where details of survey members, farmer names, etc. are required. Another frequent problem concerns management of the "commons". Villagers will not participate in the development and management of these lands unless usufruct rights are well defined and titles clear. The transect group's combined knowledge of the technologies, particularly those relating to conservation and management of resources, enables it to arrive at a "treatment plan" covering soil and water conservation, forestry, agriculture, horticulture, etc. for the watershed. These treatment plans are then indicated on a map.

Mapping is the high point of the PRA exercise. Usually the map is prepared on the ground and later copied onto paper to form a permanent record. In the mapping exercise, each group "draws" the treatment plan arrived at through the transect. Such visual representation stimulates discussion on issues such as: a) what is currently happening in terms of managing the resources, b) what should happen, and c) problems, opportunities and constraints. A strategy for treating and managing the watershed is also discussed and developed. Mapping exercises have been found to be extremely powerful tools for both outsiders and villagers to understand the dynamics of watershed management and to visualize its development.

Day III: Conclusion

On the third day, the treatment plan is finalized. The "final" plan is a consensus between the villagers and the outsiders on what is required, and how it is to be done. Generally, the plan has five components:

1. Treatment plan (e.g. soil and water conservation works, forestry);
2. Budget plan (including community contributions in cash, kind or labor);
3. Time plan (scheduling work according to the villagers' calendars);
4. Implementation plan (roles and responsibilities of various agencies including the government);
5. Management plan (roles and responsibilities of each party).

BUILDING ON PRA

Participatory rural appraisal methods have provided us, as outsiders, a clearer understanding of rural people's ways of looking at things. Staff have begun to discover many things they had previously not seen, even though they may have been working in the area for several years. Significant among these discoveries, based on past experiences, were indigenous technologies and traditional systems relating to management of natural resources. We discovered how the environment has impacted people's lives and how they have adapted to it. For example, the seasonality exercise tells a whole story enabling us to see patterns in cropping, agricultural operations, labor employment migration, income and expenditure, debt and credit, fodder and milk, human and cattle diseases, etc. - all in relation to each other and to the agroclimatic conditions.

While doing a time line exercise in one village, we discovered that a drought in 1972 was an important event in the village's history. There were several major consequences of the drought as told by the farmers:

- "Conditions were so bad that we had to go far away from our village in search of work or even a little food. Some of us reached as far as Bombay. Because of this, we have lost our fear of the 'unknown'. Nowadays, it is common practice for all able-bodied persons to migrate to Bombay after the agricultural season, where we earn good money as construction laborers."
- "We cut all our trees and sold them because we had to feed ourselves and our families."
- "Our local sorghum variety was wiped out during the earhead stage. Because we

FIGURE - 1

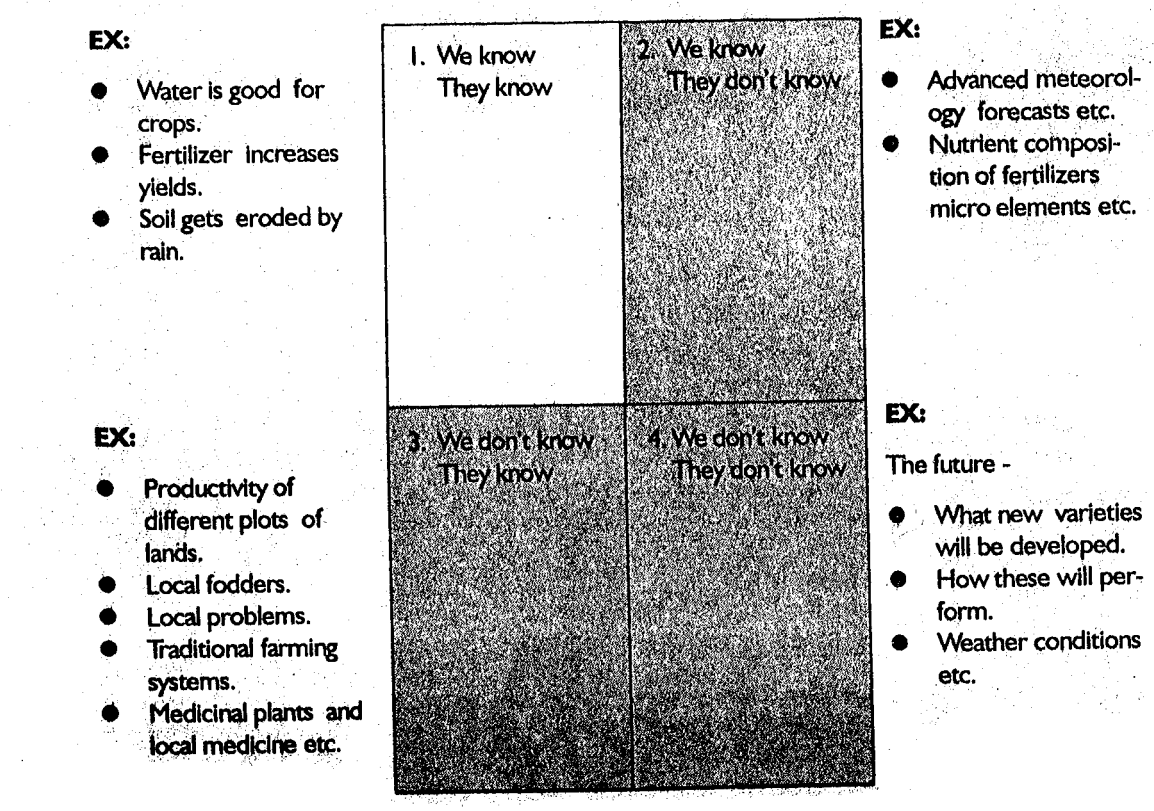
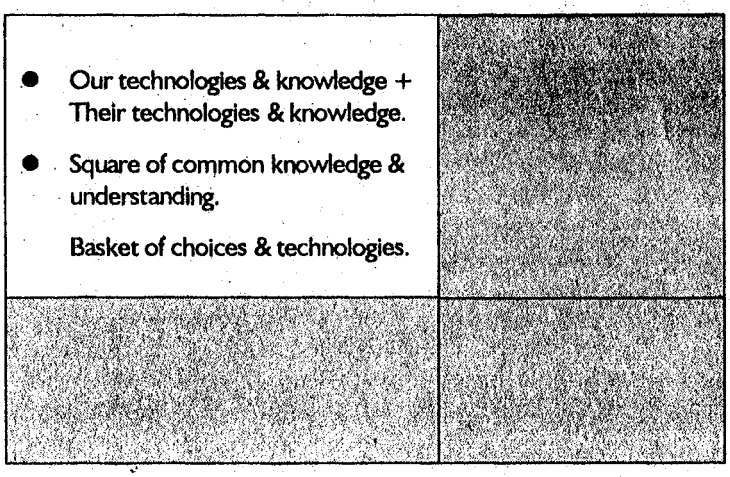


FIGURE - 2



couldn't get seed the next year, we were forced to switch to hybrids. Hybrids do not give us as much straw as our local varieties did. Therefore we were forced to extend our cultivated areas to include grazing lands. Because the grazing land was reduced, we were forced to graze our cattle in the forests."

- "Because our net cultivated area has increased, we cannot apply as much farmyard manure to each field as we used to. Since these hybrid varieties require more fertilizer, we are applying larger quantities of chemical fertilizer."

Historical transects give trends in resource uses and management. These and other methods help initiate discussions and ultimately negotiations about how potential interventions can be more relevant, more sustainable, and more easily managed by the people themselves.

Many more illustrations could be given of how the knowledge of the community about its environment finds expression through PRA. In most cases, local knowledge is collective and accumulated over several generations forming an intricate knowledge pool. This includes an incredible number of indigenous technologies and traditional management systems, most of which remain undiscovered and not yet understood.

The knowledge pool and the creativity that exists within rural people is an untapped resource in rural development and natural resource management. This is of particular significance because such indigenous technologies and management systems are low cost, appropriate to the situation, and easily managed by the people. This does not mean that no outside technology or interventions are needed. They may be, but they have to be appropriate and carried out within a suitable framework. This is illustrated by Figure 1: "Four Squares of Knowledge"

Unfortunately, we the "outsiders" have been stuck in mode 2 for too long. This has affected the development of rural people: retarding them and destroying their capabilities, confidence in themselves, and in their knowledge and systems. There is an urgent need to change this to the mode indicated in square 3 where we begin to discover and appreciate what village people know. Validation of local knowledge is required but so is validation of "our" technologies in "their context and situation". Following this approach of a) fostering innovations on either side, and b) finding what works and what is appropriate, will result in an enlarged square 1, (Figure 2) which can also be called the "square

of common and shared understanding" or the square of "participatory technology development". This square represents the "basket of choices" from which village people can choose technologies or programs according to their capacity and ability to manage them.

CHALLENGES FOR PRA

Most of the learning about PRA methods and their application, and about rural communities, their knowledge and interaction with their environment, has taken place where an NGO was already working. The NGO presence and the existing rapport provided an environment which enhanced the villagers' participation, information generation, and consequently the outsiders' learning. The lessons learnt in these settings have enabled us to develop applications in various areas from health and nutrition, to water and sanitation, credit, animal husbandry and fisheries.

In several instances, projects were changed midcourse as a result of what the local people explained to us. For example, one project was set to raise the water storage capacity of de-silting tanks to increase the areas under irrigation in the tank command area. We found the majority of the villagers had land in the catchment, and they insisted that treatment of the catchment, particularly the upper slopes, was more important than de-silting the tank. In any case, they said, a process of de-silting was already being carried out by farmers, who put silt on their fields to increase the fertility, and brick makers and contractors who used the accumulated sand and clay for building construction.

ETHICS

Questions have arisen over the ethics of conducting PRA exercises. Are we not raising people's expectations? Are we not taking up their time? Were they not participating out of a sense of duty, because they felt obliged to the outside agency?

Attempts to resolve these questions are still being made. However, certain clear distinctions can be made. For example, in cases where the PRA was purely for outsiders to learn, we compensated the villagers for their time by making a donation to the temple, mosque, school or village common fund. In cases where the purpose of the exercise was for planning the development of the village or watershed, it was generally agreed that the villagers needed to give time and to participate. However, in both cases, serious efforts are being made to set the timing of village visits at the convenience of the villagers and to share food and snacks with them. On several occasions, the villagers also shared their food with the outsiders. The outside participants were asked to be sensitive and alert to possible needs of the villagers, and opportunities for development without raising expectations. In every case, these exercises resulted in a great deal of learning for the outsiders.

Other questions arising are "authorship" of information - who should get the credit if new technologies or systems are discovered? Another issue concerns "jargonisation" or "mystification" of the methods and the interpretation of data. Openness and demystification of methods and data are essential if villagers are to become empowered and benefit fully. It is necessary for outside agencies to guard against this as well, as it can result in exclusion of villagers.

Finally, we need to address the issues of "quality control" and the "legitimacy" and "spread" of PRA methods, and how to ensure that quality is maintained as use of the method spreads. An important realization by our field staff has been that "rapid" cannot be "participatory". We much prefer the participatory mode of rural appraisal in which there is greater scope for interaction between the villagers and for them to participate in the development process. But we realize that in terms of scaling-up the approach, the method has to be both rapid and participatory.

FROM PLANNING TO IMPLEMENTATION

PRA methodology has been introduced into several government organizations in South India such as the Dry Land Development Board of Karnataka State and the Drought Prone Area Program of Andhra Pradesh, for the micro-planning of watersheds. In these exercises, the learning has been of a different nature from that described earlier, and has given an idea of how the method works in the government system. A major achievement has been that watershed maps are no longer prepared on topographic sheets or on cadastral maps at the head quarter offices, but out in the villages with the people. These exercises still have to be followed up with community action during the implementation phase to sustain participation in the program.

In several places, a stage has been reached where the implementation of watershed development activities has been handed over to the people, with outsiders lending support rather than causing interference. In this way, villagers' confidence has been developed and the local economy has benefitted with cash flowing to the people in the watershed area instead of to outside contractors and other vested interests. The watershed groups are crucial in this process, taking responsibility for managing the implementation of the program and the assets created. Recently, project evaluations have been carried out using this approach, and the idea is spreading.

TOWARDS LONG-TERM SUSTAINABILITY

We have seen in South India how this new approach of enabling rural people to participate in their own development enhances the learning of both outsiders and villagers. Learning about indigenous technologies and traditional ways in which people manage their resources helps outside agencies define their role, and understand the role that rural people have in development. It shows the need to engage rural people and incorporate their knowledge as a vital resource in the development of rural areas. If this approach is accepted, experience has shown that it will have an enormous impact on enhanced participation by the villagers.

PRA is not a "one shot" affair. It is the start of a process - a process of learning from and with rural people about their environment, their technologies and their systems of management. Hopefully, it is a move towards more sustainable development, provided it is strengthened with a consistent and responsive engagement of outside agencies with the rural people. The development of appropriate and effective people's institutions with authority and responsibility for managing their resources and environment is also necessary. To achieve this, support will be needed from all outside agencies: non-governmental, donor, and especially government.

Notes

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