

Peoples' Participation, Gender Equality

Lecture Notes by Dr.S.S.Rao

1 Introduction

Technical aspects of watershed and rainwater harvesting systems even though very important, it takes more than engineering and agronomy to make a project successful. Socio-economic factors are particularly important. Obviously, if the small scale farmer is the "customer" or beneficiary, then she/he must understand and be happy with a system which is appropriate, and which she/he is able to manage and maintain. This section looks at some socio-economic factors, and the implications they may have on project management.

2 Socio-economic factors and Peoples Participation

2.1 People's priorities

If the objective of rainwater harvesting projects is to assist resource-poor farmers to improve their production systems, it is important that the farmer's priorities are being fulfilled, at least in part. Otherwise success is unlikely. If the local priority is drinking water supply, for example, the response to water harvesting systems for crop production will be poor. Many water harvesting techniques have failed because the schemes were implemented without consulting the people concerned.

The success formula for implementing the Water Harvesting is

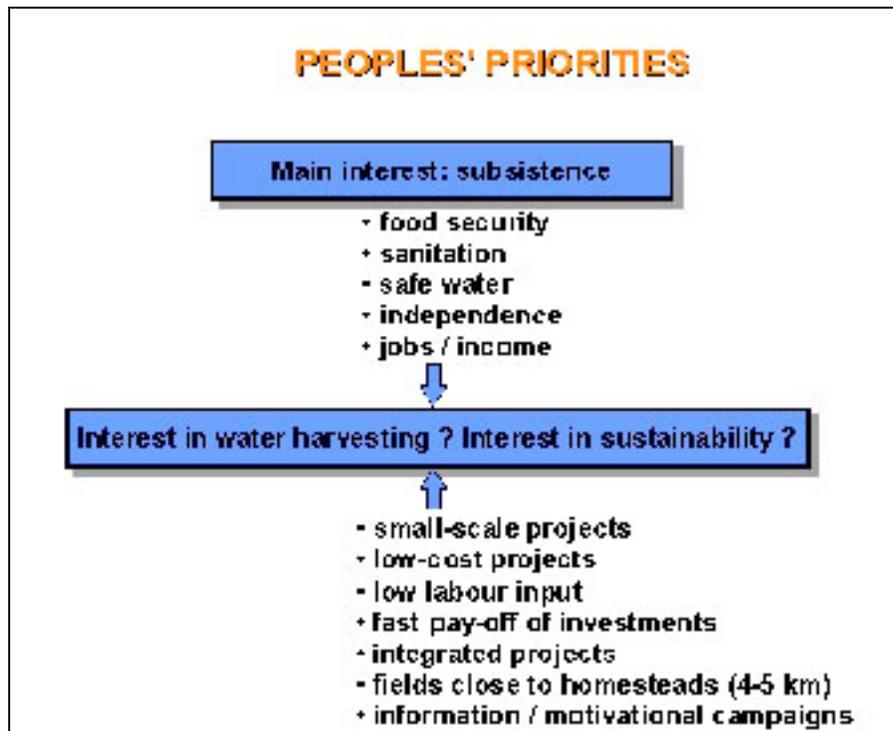
Success = Effective Technique + Appreciation + Participation.

Very few NGOs and Govt Agencies appreciate the above success formula and implement the scheme, which are doomed to failure.

Farmers in Arid and semi arid regions suffer from uncertain and meager rainfall, uneconomical and outdated farming practices resulting in land degradation and poverty. Poverty in turn results in low level of nutrition, poor sanitation, low level of hygiene, no safe drinking water, poor health, dependence, insecurity, migration to cities and desperation to survive with low self esteem.

The above results of poverty can not be over come by only external support but within oneself who should be willing to participate and work hard to over come the poverty. Thus any planner of watershed program has to realise the peoples' priorities and involve them from the beginning of the programme itself. They are briefly shown in fig 7.2.1.A and fig 2.1.B

Fig 2.1.A Peoples' priorities



2.2 Participation

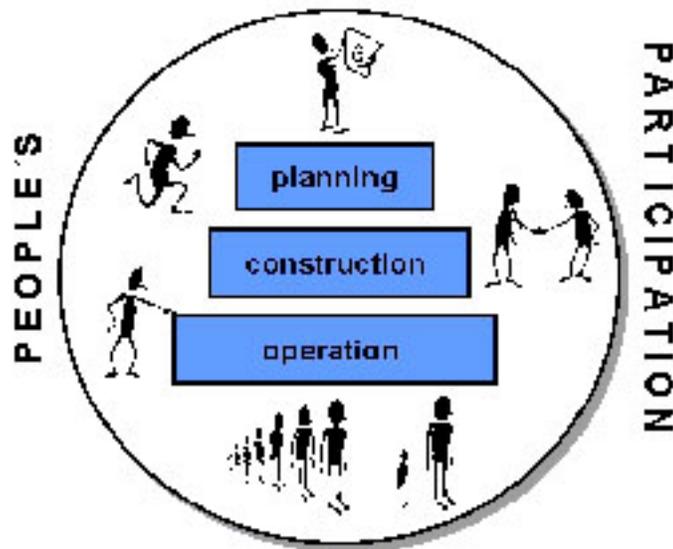
It is becoming more widely accepted that unless people are actively involved in the development projects, which are aimed to help them, the projects are doomed to failure. It is important that the beneficiaries participate in every stage of the project. When the project is being planned, the people should be consulted, and their priorities and needs assessed. During the construction phase the people again should be involved -supplying labour but also helping with field layouts after being trained with simple surveying instruments.

Throughout the course of the season it is helpful to involve people in monitoring, such as rainfall and runoff and recording tree mortality. A further participatory role is in maintenance, which should not be supported by incentives.

After the first season it is the farmers themselves who will often have the best ideas of modifications that could be made to the systems. In this way they are involved in evaluation, and in the evolution of the water harvesting systems.

Fig 2.2.B Peoples Participation

PEOPLE'S PARTICIPATION



2.3 Adoption of systems

Widespread adoption of water harvesting techniques by the local population is the only way that significant areas of land can be treated at a reasonable cost on a sustainable basis. It is therefore important that the systems proposed are simple enough for the people to implement and to maintain. To encourage adoption, apart from incentives in the form of tools for example, there is a need for motivational campaigns, demonstrations, training and extension work.

2.4 Area differences

It is tempting to assume that a system, which works in one area, will also work in another, superficially similar, zone. However there may be technical dissimilarities such as availability of stone or intensity of rainfall, and distinct socio-economic differences also. For example a system, which is best, adapted to hand construction may not be attractive to people whom normally till with animals. If a system depends on a crop well accepted in one area - sorghum for example - this may be a barrier to acceptance where maize is the preferred food grain.

3 Land tenure and land use management

3.1 Land tenure

Land tenure issues can have a variety of influences on water harvesting projects. On one hand it may be that lack of tenure means that people are reluctant to invest in water harvesting structures on land, which they do not formally own. Where land ownership and rights of use are complex it may be difficult to persuade the cultivator to improve land that someone else may use later. On the other hand there are examples of situations where the opposite is the case - in some areas farmers like to construct bunds because it implies a more definite right of ownership. The most difficult situation is that of common land, particularly where no well defined management tradition exists. Villagers are understandably reluctant to treat areas, which are communally grazed - a point taken up in the next section.

3.2 Village land use management

The whole question of land management by village communities has recently been acknowledged to be extremely important. Degraded land in and around villages can only be improved if land use management issues are faced by the communities themselves. One of the techniques which can assist in rehabilitation of degraded land is water harvesting - but it is only one tool among several others and cannot be effective in isolation. Unless, for example, grazing controls are implemented, there is little point spending money on water harvesting structures for re-seeding.

4 Project management

4.1 The project and the people

The experience of projects related to water harvesting and soil conservation has shown that there is no substitute for dialogue with the farmers/villagers, and a continued close relationship throughout. Projects should always aim to learn from the people of the target area, in particular about local traditional technology.

It is essential that project authorities keep in mind the importance of people's priorities and participation. It is important that the benefits of the new systems should be apparent to the farmer as early as possible. For new techniques there is often a need for demonstration before people will understand and envisage their effectiveness. Motivation and promotion of awareness among the people with regard to the project objectives and how to achieve them are very important issues. It is sad but true that very often the people simply do not understand what a project is trying to achieve, or even what the meaning of the various structures is!

4.2 Project approach

There are two basically different approaches with regard to water harvesting projects.

- The Demonstration, Training and Extension Approach:

The technology introduced by the project is relatively simple, and costs per hectare low. The intention is to promote systems, which can be taken up and implemented by the people themselves, with a minimum of support. The philosophy behind this approach is that the people themselves must be the prime movers in the development of their own fields and local environment.

- The Implementational Approach:

In this approach the technology may be simple or complex, but it is implemented by the project itself. Machinery is often used, but some projects employ paid (or otherwise rewarded) labour. Costs are often relatively high. The intention is that the project will quickly and efficiently rehabilitate land for the people. The philosophy is that the people are simply unable to undertake the extent of work required using their own resources and therefore they require considerable or complete support to implement the project.

Experience shows that it is the first approach, which offers the most hope for sustainability once the project has come to an end. Nevertheless there are situations where the introduction of appropriate machinery or support of some labour can be justified.

4.3 Machinery or hand labour

The introduction of inappropriate heavy machinery for conservation structures has not been successful in many countries. However, some mechanization - especially where animal traction is a component - can immeasurably speed up work rates and reduce drudgery.

The advantage of working by hand is that the people regard the techniques as within their capability. As long as part of the work is voluntary, they will be more willing to carry out maintenance. Nevertheless hand labour is slow, and labour shortages can be a serious constraint in some areas.

4.4 Flexibility of approach

Water harvesting and conservation projects should never have fixed work plans or rigid targets, at least not in the early stages of implementation. The reason quite simply is that it is unrealistic to plan for all contingencies, and arrogant to assume that the techniques and approaches planned from the outset cannot be improved. Learning from experience, and from interaction with the people, is a much better approach. Flexibility should be written into every project document.

4.5 Subsidies and incentives

Many water harvesting projects provide subsidies or incentives for construction. Several points need to be made about these:

- • Help and assistance should only be considered as stimuli to the programme; too big a subsidy to begin with can cripple future expansion and deter participation.
- • It is important that in all cases the beneficiaries should make at least some voluntary contribution towards construction. The level of contribution should rise when incentives are provided.
- • Food-for-work is common in projects in drought-prone areas. It is not easy to manage food distribution and development work at the same time. Generally other incentives, such as tools for work, are preferable.
- • Incentives/subsidies should not be used for maintenance: this should be the responsibility of the beneficiaries.

5 Gender and equity

If water harvesting is intended to improve the lot of farmers in the poorer, drier areas, it is important to consider the possible effects on gender and equity. In other words, will the introduction of water harvesting be particularly advantageous to one group of people, and exclude others? Perhaps water harvesting will give undue help to one sex, or to the relatively richer landowners in some situations. These are points that should be remembered while designing the projects.

Women play an important role in water management. They are most often the collectors, users and managers of water in the household as well as farmers of irrigated and rain fed crops. Because of these roles, women have considerable knowledge about water resources, including quality and reliability, restrictions and acceptable storage methods, and are key to the success of water resources development and irrigation policies and programmes.

In many cases water resource policies and programmes have proven detrimental to women's water rights and, therefore, to their sustainable management and use of water. Interventions such as irrigation habitually fail to take into consideration the existing imbalance between men and women's ownership rights, division of labour and incomes. By raising the value of the land, irrigation brings about social change, which usually favours men. The key factors of women's share in Indian agriculture are given below

Key Facts about Indian Women

- Indian population is 48.1% women and 51.9% men
- Female illiteracy is 62% whereas the male illiteracy rate is 34%
- The labour force participation rate of women is 22.7%, less than half of the men's rate of 51.6%
- In rural India, agriculture and allied industrial sectors employ as much as 89.5% of the total female labour.

- Women have extensive work loads with dual responsibility for farm and household production
- Women's work is getting harder and more time-consuming due to ecological degradation and changing agricultural technologies and practices
- Women have an active role and extensive involvement in livestock production, forest resource use and fishery processing

- Women contribute considerably to household income through farm and nonfarm activities as well as through work as landless agricultural labourers
- Women's work as family labour is underestimated
- There are high degrees of inter-state and intra-state variations in gender roles in agriculture, environment and rural production

5.1 Women in Sanitation and Water supply

Women provide nearly all the water for the household in rural areas. Domestic water is used for processing and preparing food, for drinking, bathing and washing, for irrigating home gardens and watering livestock. Women know the location, reliability and quality of local water resources. They collect water, store it and control its use and sanitation. They recycle water, using gray water for washing and irrigation and runoff from these for livestock.

Women make multiple and maximum use of water sources and attempt to ensure that these sources do not become polluted. Given their many and often competing needs, such as water for livestock and for human consumption, as well as time and resource constraints, women often cannot avoid contaminating water supplies. As water sources become contaminated from humans, animals or agricultural runoff, or as drought increases or water sources deteriorate due to watershed mismanagement, women and children must walk longer distances to secure water. Some 30 percent of women in Egypt walk over an hour a day to meet water needs. In some parts of Africa, women and children spend eight hours day collecting water.

Poor water access and quality affect not only women's crop and livestock production and the amount of labour they must expend to collect, store, protect and distribute water, it also affects their health and that of their families. All types of water-related diseases and especially water- and vector-borne diseases affect millions of poor each year. Women

must take care of the people who are ill from malaria, onchocerciasis, shistosomiasis and diarrhea, and replace with their own labour or the labour of those who have fallen ill.

It is now recognized that the exclusion of women from the planning of water supply and sanitation schemes is a major cause of their high rate of failure. International initiatives, such as the International Drinking Water Supply and Sanitation Decade and the United Nations Conference on Environment and Development (UNCED), have been instrumental in promoting the role of women in water management. They are increasingly trained on water pump operation and maintenance and perform leadership roles in Drinking Water Users' Organizations.

Yet, the incorporation of gender issues in the planning, design and implementation of irrigation programmes has been far more limited despite the number of studies documenting the failure of irrigation schemes due to mistaken assumptions regarding the intra household division of labour and organization of production.

Gender analysis can help irrigation planners and policy-makers to improve the performance of irrigation schemes. There are three broad areas in irrigated agricultural production systems that require particular attention, and where a more thorough, gender-based analysis of local situations will help to create more effective, equitable and sustainable irrigation policies and programmes.

Irrigation design.

In order to accommodate the water needs and requirements of both male and female farmers, it is necessary to identify who will be using water, the amounts needed, at what times and for what purpose. For this, local participation in project design activities is essential, and thorough discussions should be held during each phase of project planning with different segments of rural communities (village leaders, male irrigators, adult women, youth, and men and women from poorer households).

Legal, administrative and organizational arrangements.

Ensuring women's use and control of land - and irrigation water - is fundamental. Studies have shown a direct correlation between independent land and irrigation rights for women and a higher productivity of land and labour. Thus, land allocation under irrigation schemes should be to individual farmers rather than to households.

With regard to Water Users' Associations, all farmers who own or rent irrigated plots as well as all adult family members who work on irrigated plots, including women and young adult children of plot holders, should be members. Women should also be guaranteed leadership positions based on the proportion of women as members or as participants in the scheme.

Implementation.

Water delivery schedules should be devised in such a way as to accommodate both men's and women's needs with respect to quantity, timing and quality of water. Also, training in water control and management, cropping calendars, and system maintenance should be extended to women as well as men.

Given that women's incomes are considerably lower than men's and that the capital requirements to invest in irrigated crops can be quite high, access to credit systems should be made available to women irrigators. Access to credit will also facilitate women irrigators' access to technology.

5.2 Women and Food Security

Women produce between 60 and 80 percent of the food in most developing countries and are responsible for half of the world's food production, yet their key role as food producers and providers and their critical contribution to household food security is only now becoming recognized.

FAO studies confirm that while women are the mainstay of small-scale agriculture, farm labour force and day-to-day family subsistence, they have more difficulties than men in gaining access to resources such as land and credit and productivity enhancing inputs and services.

Food security, in fact, has been defined by FAO not only in terms of access to and availability of food, but also in terms of resource distribution to produce food and purchasing power to buy food where it is not produced. Given women's crucial role in food production and provision, any set of strategies for sustainable food security must address their limited access to productive resources.

Women's limited access to resources and their insufficient purchasing power are products of a series of interrelated social, economic and cultural factors that force them into a subordinate role, to the detriment of their own development and that of society as a whole.

The international initiatives and efforts developed, especially since the 1975 World Conference on Women in Mexico, have contributed to a greater recognition of women's key participation in rural and other domains of development. However, much remains to be done.

5.3 Nature of women's work

In most rural areas, the most time-consuming activities of women are fetching water and fuel wood. Widespread deforestation and desertification mean that these tasks are becoming more burdensome and are preventing rural women from devoting more time to their productive and income-generating tasks. In some cases, women also pass part of the burden of these activities to their children, usually female children. Relieving women from such drudgery as fetching water and fuel wood and food processing would allow

them to have more time for productive work and would enable their children to attend school. Thus development interventions to reduce women's workload can significantly enhance their contribution to household food security. The provision of water supplies; the introduction of light transport facilities to carry fuel wood, farm produce and other loads; the introduction of labour saving agricultural tools; and the introduction of grinding mills and other crop processing equipment are crucial means of freeing women's time. Such technologies not only create possibilities for women to enter into more income-generating activities, but also help in reducing their stress and in improving the health and nutrition of women and children.

The major constraint to the effective recognition of women's actual roles and responsibilities in agriculture is the scarcity of gender-disaggregated data available to technicians, planners, and policy-makers.

Therefore, the first step towards women's empowerment and full participation in rural development and food security strategies is the collection and analysis of gender disaggregated data to understand role differences in food and cash crop production as well as men's and women's differential managerial and financial control over production, storage and marketing of agricultural products.

In sub-Saharan Africa, for example, micro level studies have shown that women play a crucial role in many aspects of crop production. While men are often responsible for land clearing, burning and ploughing, women specialize in weeding, transplanting, post-harvest work and, in some areas, land preparation, and both take part in seeding and harvesting.

Moreover, women in sub-Saharan Africa and the Near East play a major role in household animal-production enterprises, where they tend to have the primary responsibility for the husbandry of small animals and ruminants, but also take care of large-animal systems, herding, providing water and feed, cleaning stalls and milking. In all types of animal-production systems, women have a predominant role in processing, particularly milk products and are commonly responsible for their marketing.

In many countries women are also responsible for fishing in shallow waters and in coastal lagoons, producing secondary crops, gathering food and fuel wood, processing, storing and preparing family food and for fetching water for the family.

5.4. Access to resources

Despite their role as the backbone of food production and provision for family consumption in developing countries, women remain limited in their access to critical resources and services. While in most developing countries, both men and women farmers do not have access to adequate resources; women's access is even more limited due to cultural, traditional and sociological factors. Accurate information about men's and women's relative access to, and control over, resources are crucial in the development of food security strategies.

Access to land.

Not even 2 percent of land is owned by women, while the proportion of female heads of household continues to grow. Land reform programmes together with the break-up of communal landholdings have led to the transfer of exclusive land rights to males as heads of households, which ignores both the existence of female-headed households, and the rights of married women to a joint share.

Access to credit.

For the countries where information is available, only 10 percent of credit allowances are extended to women, mainly because national legislation and customary law do not allow them to share land property rights along with their husbands or because female heads of household are excluded from land entitlement schemes and consequently cannot provide the collateral required by lending institutions.

Access to agricultural inputs.

Women's access to technological inputs such as improved seeds, fertilizers and pesticides is limited as they are frequently not reached by extension services and are rarely members of cooperatives, which often distribute government-subsidized inputs to small farmers. In addition, they often lack the cash income needed to purchase inputs even when they are subsidized.

Access to education, training and extension services. Two-thirds of the one billion illiterate in the world are women and girls. Available figures show that only 5 percent of extension services have been addressed to rural women, while no more than 15 percent of the world's extension agents are women. In addition, most of the extension services are focused on cash crops rather than food and subsistence crops, which are the primary concern of women farmers and the key to food security.

Access to decision-making.

Given the traditionally limited role of women in decision-making processes at the household, village and national levels in most cultures, their needs, interests and constraints are often not reflected in policy-making processes and laws which are important for poverty reduction, food security and environmental sustainability. The causes of women's exclusion from decision-making processes are closely linked to their additional reproductive roles and their household workload, which account for an important share of their time.

Access to research and appropriate technology.

Women have little access to the benefits of research and innovation, especially in the domain of food crops, which in spite of ensuring food security at the household and community levels, have a low priority in crop improvement research. In addition, women

farmers' roles and needs are often ignored when devising technology that may cause labour displacement or increased workload.

5.5 Women's need for income

Research in Africa, Asia and Latin America has found that improvements in household food security and nutrition are associated with women's access to income and their role in household decisions on expenditure as women tend to spend a significantly higher proportion of their income than men on food for the family.

Women's wage income from farm and non-farm employment and from other income-generating opportunities is of particular importance for landless and near-landless rural households.

Women's purchasing power may not only be used to buy food and other basic assets for themselves and their families, but also to pay for the inputs used in food production. Since food crops are consumed, the inputs for these have to be provided from income earned in other agricultural enterprises or non-farm income-generating activities.

Thus, to improve food production for the household, greater priority has to be given to increasing women's participation in market production as well as others including Sustainable food security

Specific policy measures are required to address the constraints facing women farmers and to give special consideration to the needs of female heads of households. FAO has recommended that such measures aim to:

- Ensure that women have the same opportunities as men to own land;
 - Encourage the production of food crops through the use of incentives;
 - Promote the adoption of appropriate inputs and technology to free up women's time for income-producing activities;
 - Improve the nutritional status of women and children;
 - Provide better employment and income-earning opportunities;
 - Promote women's organizations;
 - Review and re-orient government policies to ensure that the problems that co-facilitate women's access to agricultural services tailoring such services to their needs;
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