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WOMEN IN AGRICULTURAL RESOURCE MANAGEMENT

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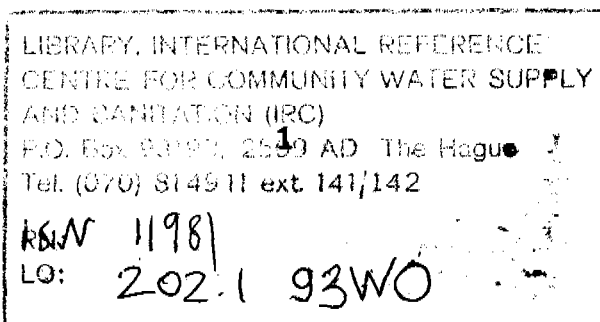
In India, recognition of women's roles in land and water use dates from the 80's. Special women's programmes had little visible impact, sustainability and replicability. Integration in mainstream development is now undertaken in the National Watershed Development Programme for Rainfed Areas. The programme consists of recovering of water catchment areas with forests, pastures and rangelands; proper management of these areas; and rainwater harvesting. Other programmes are Operations Research Watersheds with ICAR, the National River Valley Project, the Drought Prone Areas Programme and the Western Ghat Development Programme. Most effort goes to physical measures; training of men and women is relatively neglected. The VIIIth Five Year Plan now stresses an integrated and multi-purpose approach, catering for food, fodder, fuel and income generation; using low-cost and vegetative conservation measures; and stimulating people's participation. The author stresses that for proper management, the watershed should be developed as a whole. This requires several ministries to plan and implement together. Especially women use the whole watershed as a resource base, so are important partners for integrated planning and development. Including women on local committees is not enough, however. Projects should also not be limited to physical restoration of a degraded environment, but focus on the creation of strong village institutions, which can take action and manage land and water use. This is illustrated by a case of collective village watershed management. Involvement of women can be enhanced by including functional education programmes on watershed management for them in the project. Adapted programmes should be developed for each watershed, based on local needs and including training in literacy and technical skills. Research on watersheds should be interdisciplinary and look at the whole range of activities, with a special focus on women. Gender analysis should precede the drawing up of the research agenda, preferably through a joint diagnostic survey. NGOs play an important role in mobilization for collective action and building women's leadership. There is an urgent need for the documentation of gender-specific case studies.

WOMEN IN AGRICULTURAL RESOURCE MANAGEMENT

Author : Dr. ARUNA BAGCHEE

(i) Women in Indian agriculture

While Indian agriculture, as a whole, has shown quite substantial gains, especially since the mid-sixties, the recognition of women's role in this sector has come more slowly and more recently, from only about the eighties. There is, today, more awareness of the fact that farm women carry a significant part of the responsibility not only in crop production and homestead gardens, but also in tending live-stock, poultry and dairy. Not only is the contribution of female labour obvious and important in certain farm operations like the transplanting of paddy, or harvesting and post-harvest management of most crops, their role as owners and decision-makers of the farms is also significant. The latter is particularly true in hill farming situations, among tribal populations, and elsewhere too, where the men try to get at least part-time, off-farm regular employment, or in cases of more or less permanent out-migration of the males. Even in the case of more apparently male dominated agriculture (as in some states of the northern plains region), women, nevertheless, take responsibility for fuel collection and management of livestock, as well as a number of other allied activities, including market gardening. The fact that rural women are thus intimately involved in the management of agricultural resources has now come to be well accepted.



However, it has to be admitted that this recognition of the role of farm women in Indian agriculture, has yet to make a significant impact in re-orienting either agriculture research priorities or the developmental schemes. A determined effort is thus needed to translate this "slow recognition" of farm women's contribution to agriculture, into a positive support and encouragement to their role in the further development of the country's agriculture.

How exactly this positive support should be given is, however, still a matter of debate. One strategy attempted (through bilateral assistance from Danida) has been to implement separate women-farmer oriented projects. In these, female supervisory and field extension staff identify the production constraints of women farmers, arrange for short term inhouse training, and for follow up extension services thereafter. But these are isolated micro-level projects without any large scale visible impact or wider replicability. 2) Another strategy which was been considered is to appoint more women contact farmers and village extension workers (VEWs) under the training and visit extension system. This would imply creating a parallel delivery system which implies high costs, and in Kerala, where it has been tried, the impact is not very encouraging. 3) A third approach sees the necessity of involving women farmers in mainstream development programmes, such as the watershed development programme, for

example. This paper argues that involving women farmers in mainstream development programmes is a sound strategy. Since the watershed development programme is a major thrust area in the 8th five year plan, a beginning can be made by strengthening the women's role in agricultural resource management through this programme.

(ii) The Watershed Development Programmes

Watershed development aims at restoring a denuded catchment area to a properly managed system of replanted forest cover in the upper reaches, adequate pastures and range lands, and measures for maximum harvesting of rainfall. It is thus an important means of increasing the productivity of rainfed farming systems.

Given the extensive area under rainfed cultivation in the country, the Government of India has, in all its development plans, implemented various schemes for dryland agriculture. In the 8th five year plan, 1990-95, particularly, it has embarked upon a revised, more comprehensive programme for improving rainfed farming systems on a watershed basis. The scheme's title is the National Watershed Development Programme for Rainfed Areas (NWDPR). Besides the NWDPR, there are ORP watersheds (operations research watersheds sponsored by the ICAR and agricultural universities), as well as several state level schemes. The watershed approach is also followed in some other important central schemes like the National River

Valley Project, the Drought Prone Areas Programme, the Western Ghat Development Programme, etc.

However, in all of these schemes, the emphasis, so far, has been on developing the physical infrastructure of the watershed. Consequently, the programmes largely consisted of traditional soil/water conservation measures, such as construction of check dams and diversion drains, contour and graded bunding, terracing, etc. Much less effort has gone into training the farmers (both men and women) in on-farm scientific crop production systems (i.e. in extension efforts to popularise in-situ moisture conservation methods), and to encourage them to cooperatively manage the resources in a watershed on a sustainable basis.

However, in the eighth plan period, some of these shortcomings are sought to be corrected by-

- 1) placing greater emphasis on an 'integrated' approach, that covers both arable and non-arable land treatment, as well as caters to the farmers' multiple needs for food, fodder, fuel and income-generating activities.
- 2) greater reliance on low-cost and vegetative conservation measures. Thus in-situ moisture conservation would replace the earlier dependence on more expensive, earth/stone masonry engineering structures for water harvesting.

3) stimulating and promoting people's participation in project planning, implementation and the management of community assets. For this, 3 contact farmers (Mitra Kisans) from the watershed villages are to be trained, and "care will be taken to select farm women as well".

These revisions are welcome, and give great scope to strengthen the role of women in managing the resource base of the watershed. However, this paper argues that merely giving women a quota representation on the beneficiaries' committee will not be enough, and would amount to only tokenism. Much more serious thought and efforts are required to meaningfully involve women farmers in watershed management. Discussed below are some of the key interventions that seem required from this point of view. These include (a) underscoring the need to develop the watershed as a whole (b) paying as much attention to institutional development as to the physical restoration of the watershed (c) measures to particularly train the women in the watershed, through functional literacy sub-projects. (d) introducing farming systems' research (FSR) sub-projects that have a predetermined focus on the role of women and (e) involving more voluntary agencies and documenting cases of success and failure at involving women in watershed management activities. We explain below how these interventions would help women farmers.

- (iii) Strengthening the Role of Women in Watershed Management.
- (a) Underscoring the need for integrated development of the watershed as a whole.

There is a need to re-emphasize the concept of watersheds as natural geo-hydrological units of planning in which land management practices at different gradients - upland, midland and lowland - are interconnected. Since the watershed is, by definition, the unit of planning under this programme, the need to develop the watershed area as a whole, through integrated planning, should be obvious. Unfortunately, in actual execution, this does not happen, partly because several agencies are responsible for implementing different components of the watershed development plan. Water harvesting and drainage management are the responsibility of the soil conservation department; the on-farm moisture conservation practices are to be explained to the farmers by the extension staff, and afforestation in the upper reaches is the task of the Social Forestry department. In the absence of co-ordination between these agencies, the linkages between land use in the upland, mid-land and lowland regions, and that between individual farming units and the wider resource-base of a watershed, are not very well recognized. And in the absence of such integrated development, many current watershed

projects are reduced to merely construction of a series of drainage management structures, called nala-bunds, leaving on-farm cultivation practices and social forestry efforts untouched. However, this approach is bound to fail. Unless there is adequate tree and grass cover in the upper reaches of the watershed to "harvest" some of the rainwater and decrease the velocity of the run-off, there is little point in nala bunding farther downstream. Because individual land holdings are small and uneconomical in the rainfed areas, these farmers are dependent on the larger resource base of the watershed as a whole, which provides many of the free goods such as sisal for rope making, wood poles for housing, tools and fuel, besides free grazing for the animals, etc. There is, thus, an intimate linkage between the individual farm enterprise and the wider resource base of the watershed.

Women are particularly concerned with such linkages, as many of these allied activities concern them specifically. For example, most women from small holder families not only work at crop husbandry in private farmlands, they are also charged with responsibilities for the grazing of livestock in the common pastures, fodder and fuel wood collection from the community lands, and gathering nutrition supplements (tubers, roots, honey, fruit, and pods), and other free goods (sisal, bamboo) from the nearby forests for making them into marketable items like rope and woven baskets. They are, therefore, critically interested

in that the entire watershed be treated as a resource-base and as an integrated unit of planning. Such an approach would thus be directly in the interest of women in the watershed.

(b) Institutional Development

Secondly, the current concept of watershed development tends to be limited to the physical restoration of a degraded environment. Thus the components of watershed development are generally understood as planting more trees, constructing nala bunds, and developing pasture lands. However, a most critical ingredient of the farming system, namely, human resource development (community development) is completely ignored in such a conception. Yet, human resource development, including the development of appropriate institutions in the community, is the very cornerstone of a scientific management of the resource base of a watershed. Unless people living in the watershed understand the linkages mentioned above, unless they are motivated for collective action to manage the watershed for sustainable agriculture, government expenditure in afforestation or nala bunding per se is bound to be wasted, in the absence of maintenance and care, and proper institutions to manage the community asset. A few examples from the successful experiment of watershed development in village Ralegaonsiddhi will make the point clear. All watershed projects include a component of afforestation and pasture development. But in most cases, the experience is

that grasslands are fenced off and trees planted, at government cost, only to be encroached in by the local villagers. Only in Ralegaonsiddhi, because of local leadership, the newly forested commons are examples of "social fencing" - the villagers have strictly followed the discipline of not letting in cattle for free grazing. Not only this, but when the Ralegaon villagers found that villagers from a neighbouring village were stealing wood and grass from this area, they went as a group and apprehended the trespassers. Each was forced to pay a fine of Rs. 111/-; the sum so collected was, however, returned to the neighbouring village as a lump-sum for its school. This gesture so impressed the villagers in that village that they too have started thinking of community action along similar lines.

The reason that pasture development and afforestation works have succeeded in Ralegaon is that the economics of their management have been clearly worked out and consensus built about the use and benefits to be shared from the assets so created. First of all any alternate use that marginal crop lands are converted to, such as pasture or grassland development, can be viable only in the context of the demand for fodder in the watershed, and the availability of foodgrains for the owners of these marginal crop lands. Such lands are generally owned by the poorest cultivators, who grow minor millets (hulga, varai) in the kharif, for domestic consumption. They cannot forgo this

option, merely because the soil conservation department declares these lands as unfit for crop cultivation, and recommends that they be developed as grasslands. In Ralegansiddhi, the problem of the food security of the poorest villagers was first solved through a "grain bank" - a buffer stock of cereals contributed by the better-off farmers. Thereafter, land use planning according to its capability became feasible, as the small holders who were cultivating food crops on marginal lands were willing to use this land for grass and fodder production. The activity of fodder development also became worthwhile as all the farmers came together to work out the demand for fodder within the watershed. There has to be a balance between the livestock maintained by the farmers in the watershed village and the fodder budget worked out for them.

In Ralegaon, when it was decided to take up such works, the villagers realized that if some of the common lands had to be temporarily closed for regeneration, the number of animals (then about 1900) needed to be brought down to the carrying capacity of the available grazing grounds. Many of the small stock (goats) were sold off, some of the cattle were gifted away, till the number was reduced by half: 1000. As the private marginal lands and the common lands started yielding grass, a fodder budget was worked out for each farmer. It was decided that the cultivators should, by and large, maintain as many heads of livestock as they could feed from their own grasslands and

crop residues. The right to exploit the common grasslands was given only to the landless families who had no land of their own to maintain their livestock. Even in their case, there are no free rights : each family is charged Rs. 15 per month for the right to cut and carry grass from the common pasture lands and each one is allowed only one headload a day. This has brought in a modest income (Rs. 3000 annually) to the GBram Panchayat, and there is a set of rules worked out which serve the interests of all parties involved, and which explains the success achieved in "social functioning" of these commonly owned assets. It is these social or institutional arrangements that are generally lacking in merely executing the physical targets of a development programme.

(c) Innovated Functional Education (IFE) Sub-projects

As mentioned above, institutional development - encouraging men and women farmers to collectively manage the watershed resources - has so far been a neglect aspect in the programme. It needs to be emphasized. More-so in the case of women. In many villages, however, in order that women can come forward and participate in such community action, they need some special training.

Therefore an important component for strengthening the role of women in ongoing watershed projects would be to start innovated functional education sub-projects for the women in these watersheds. Non-government organizations and

other agencies (agricultural schools, Krishi Vigyan Kendras, etc) can be involved to organise innovated functional education sub-projects for the women in the watersheds. The main thrust of the sub-projects should be to evolve a need-based curriculum and a teaching model to train the women in the selected watersheds. They should have the following salient features :

1) the curriculum should be need-based and locality specific (in some watersheds, there may be scope for introducing scientific bee-keeping, in others, tussor silkworm rearing, in still others, for improving vegetable gardening or floriculture)

2) the medium of instruction should be the local language, or even the specific dialect or sub-dialect which the women speak

3) skill training should be an integral part of the literacy component. The literacy material should be developed around the skills to be imparted

4) the skills and competencies taught, should, besides being site-specific, be income generating so as to be meaningful to the participants.

5) due stress should be given on teaching non-traditional skills, such as the use of the simple A frame, bio-gas plant installation and even operation of electrical/diesel pumpsets.

The IFE sub-projects can be run in clusters of 20 to 30 selected watersheds. Each sub-project should start with a need assessment survey, development of site-specific curriculum, and literacy material as well as a plan of skills training program.

(d) FSR/E sub-projects in selected watersheds

Agricultural research that is oriented predominantly to varietal improvement and is organized for specific commodities and in watertight disciplines within university departments, is not likely to serve the interests of women farmers, especially of women in small holder families in rainfed areas. These women are generally engaged in mixed farming, on small and marginal holdings, and with many constraints of time, labour input, and cash. What is, therefore, essential is more field problem oriented research, that is, moreover, interdisciplinary, in that it looks at the whole farming system, rather than only at the main activity or dominant crop. There is a need for farming systems oriented agricultural research that has a pre-determined focus on women farmers.

There have been a few attempts in this direction, such as the Ramakrishna Mission work in the Sunderbans areas, and the Ford Foundation sponsored Eastern India farming systems network, but these are not specifically oriented to developing the watershed as a resource base. It is expected that women's interests in agricultural development would be better served by having a farming

systems research and extension sub-project linked to the watershed development programme. In order to give the FSR/E sub-project a consciously pre-determined focus to improve the productivity of women farmers, gender analysis must precede the drawing up of the research agenda, as well as the monitoring and field testing of new technologies. This would involve :

1) Bringing together women farmers, extensionists and scientists from the nearest agricultural universities, KVK's, or NARM Centres, to do a joint diagnostic survey. A useful tool in this exercise is a gender differentiated Activities Calendar that lists all the activities in which the local farmers are engaged over the year. To provide a more accurate picture of the entire range of enterprises involved and of the seasonal constraints of labour and other inputs, the Activities Calendar should include all production activities, not just major crops. It should also include (a) domestic production or home maintenance activities such as collecting fuelwood and water, childcare, cooking, house construction and repair, etc. (b) any gathering activity, such as collection of minor forest produce (c) non-farm production of goods and services through wage labour or other work, and (d) home processing of farm produce or collected goods, made into marketable items, like woven baskets etc.

2) Such base-line data can then be used to design a research agenda, that gives high priority to addressing the identified constraints to increasing the productivity of women in the watershed. Unless this is done, quite frequently, gender analysis stops with diagnosis.... that is, with charts showing men's and women's tasks. However, if there is an ongoing FSR project, with a predetermined focus on women, then gender analysis can form the basis for actual research work, and it will be useful, also, in the field testing and evaluating of new technologies. For instance, in activities like fertilization, foraging, pesticides, crop protection, post-harvest home processing, etc. gender analysis would help in answering the key questions of who is affected and who must be taught techniques of application when new technologies are recommended. Are the new tasks labour saving or intensive? Are the opportunity costs correctly estimated according to the gender of who is doing the task?

In particular, we need to commission special studies with respect to :

1) Time-allocation studies, in different agro-climatic regions, to bring out how women's time is utilized before and after the completion of a watershed development project.

2) Evaluating the extent of increase in the employment and income which accrues to women as a consequence of watershed development activities.

3) Documenting the case-studies of success/failure of women getting involved in watershed development activities,

(e) Involving NGO's and documenting case-studies.

Besides training and research support, another crucial element is mobilization for collective action. As mentioned above, the term 'watershed development' has to be correctly conceptualised, so that human resource development forms an integral part of it. HRD includes grassroot level efforts to motivate and organize the local farmers for collective action to manage their resource base. In this, voluntary agencies can play a very important role. Indeed, more than government, it is voluntary agencies who can more effectively play the role of catalyst agent to motivate farmers for collective action. Unfortunately, very few of the voluntary agencies working in rural India have yet turned their attention to watershed management activities. Even fewer have worked specifically with the women in the watersheds. Yet the few exceptions that exist have shown very dramatic successes in making the watershed development activities an effective measure for changing the pattern of opportunities available to the local farmers. It is, therefore, necessary to support the involvement of voluntary agencies in watershed development activities, particularly, those addressing the problems of rural women.

Such support should be 1) through networking of the agencies already working in the field 2) making available to these agencies, published material and slides/films bringing out the inter-linkages between all of the activities going on in the watershed. 3) encouraging them to more directly address the problems of women in the watershed and 4)

encouraging more voluntary agencies in the rural areas to focus on watersheds and particularly on the women in watersheds.

The experience of n.g.o.'s so far has shown that considerable motivational and organisational work has to be done to involve women in watershed development activities. Despite their considerable contribution in almost all aspects of farming, rural women have been handicapped in participating in development schemes because they lack direct access to information or to government or bank officials. Yet there have been some quite remarkable experiences where women have learnt to play leadership roles, have even formed all-women cooperatives, and are in a position to make demands on the system. More needs to be known regarding these initial mobilization efforts, the dynamics of group formation, emergence of leadership, and the interaction of women's groups with the given system. Unfortunately, very little is documented of these efforts, even by those n.g.o.'s working in the field with women's issues. There is an urgent need for documentation of case-studies which throw some light on these aspects. Indirectly, and in the long run, these case-studies of success or failure, will help us in refining further efforts to strengthen the role of women in the management of agricultural resources.

CONCLUSION

In brief, what we have discussed above is that women are obviously and significantly engaged in agricultural resource management in India. At the same time, it has to be recognized that rural India is a highly segmented society, with clear-cut barriers of class-status, hereditary caste-occupations, and community and sex determined rules of interaction and tradition. All of these have important consequences for the organization of agricultural production, and these elements have to be taken cognizance of while planning further agricultural growth. In such a situation, to effectively 'reach' the women farmers with a viable strategy to support their agricultural activities is not an easy task. It requires determined efforts, matched by a lucid perspective and clear-cut goals.

We have argued, further, that given this need, the strategies of reaching women-in-agriculture through separate, micro-projects, or through a parallel extension/delivery system seem inadvisable on two counts. First of all, they do not appear to be cost effective solutions. Secondly, they run the risk of marginalizing women's contribution, for the "women's programmes" will, with certainty, be marginalized as far as both funding and staffing issues are concerned.

On the other hand, we argue that it is advisable, instead, to conceive of ways in which the mainstream development programmes reach and address the production

constraints of the women, as well as men, engaged in the farming system. In this essay, we have outlined how the government's major development programme for the rainfed areas-the watershed development programme - needs to be reconceptualized so as to serve the intertests of the women engaged in this sector. These ways include :

- (a) re-emphasizing the need for integrated development of the catchment as a whole, so that individual farming units, (particularly the women) can derive benefits from the wider resource-base of a restored watershed.
- (b) stimulating and encouraging collective action at the village level to develop appropriate institutions (co-operatives, committees, whatever) for the management of common property resources developed in the restored watersheds.
- (c) introducing functional literacy sub-projects specifically developed for the women in the watershed.
- (d) introducing FSRE sub-projects in the programme, that will keep in mind the gender variable both while drawing up the research agenda and in evaluating the impact of newly introduced technologies.
- (e) involving non-governmental organizations, who are better equipped than government, to be catalyst agents for change, particularly for motivating farmers in collective action for resource management.

Funding and policy directions are required to support these components in the watershed development programme. For they, in turn, will go a long way in supporting farm women in the rainfed areas, to better manage their agricultural resources.