SOCIAL FORESTRY: DEFINITIONS AND RESEARCH NEEDS

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SOCIAL FORESTRY RESEARCH FOR SUSTAINABLE DEVELOPMENT: INSTITUTIONAL AND HUMAN RESOURCES

Summary

Social forestry has been developed and applied on a large and still expanding scale during the last three decades in tropical developing countries (particularly India) in response to large scale deforestation and landscape degradation arising primarily from the expansion of human populations. The term is defined, as are the five principal tree management models used in its application. The activity, which is still developing, has a number of distinct features, prominent among which is inter-disciplinary working. These features have presented a range of research and development needs which, in turn, have important applications for institution and working alignments and thus for human resources and program development, and their training.

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Introduction

Major population expansion during recent decades and resulting pressures on the land and natural resources growing on it, particularly in the tropics, have led to the development of social forestry as an approach to meeting needs for income, food, shelter, and fuel for humans, fodder for their animals. The activity is strongly multi-disciplinary in nature. This and the proliferation of forms that has marked its development, call for strong research inputs which, like its operational phases, have important implications for institution building and therefore for human resource development and training. The multi-disciplinary nature of social forestry as well as the

several forms that it takes, create a need, in order to avoid confusion, for a clear definition of each.

Historical Background

The concept of social forestry, which, in the past, was more often referred to as community forestry, had its genesis in age-old forms of communal forestry practiced by cities and communes in Europe. A good example is afforded by the City of Zurich in Switzerland where the communal forests have been managed for centuries, with considerable involvement and strong support of the people, to produce a combination of industrial and other outputs, including wood products a well as benefits accruing from protection of fragile mountain habitats and avalanche control.

Social forestry was being practiced in India on a small scale in the 1950's (IBRD, 1985). The term appears to have been coined there in the 1960's to denote the strategy that was beginning to emerge to offset the trend towards serious degradation of the natural forests and the lands they occupied as a result of efforts to provide agricultural crop land and wood for fuel and other purposes for soaring population.

Deliberate Government of India action was initiated in 1970 when the Indian National Commission on Agriculture was formed, to examine the whole agricultural sector, including forestry. The Commission recommended that a major social forestry program should be undertaken to increase the production of fuelwood and the supply of small timber and fodder, and to protect the fields from wind and soil erosion. Responsibility for these programs was given to the States, which were to provide, among other features, for monitoring and evaluation to ensure effective use of development funds. (Leverty, 1985).

Large scale social forestry programs were initiated under India's Fifth (1974-79) and Sixth (1980-85) 5-year plans (IBRD, 1985). By 1984 there were social forestry projects under way in 13 states, with the combined objectives of (i) establishing 1.2 million hectares of plantations (village woodlots; strip plantations along roads, railways and canals; replanting of degraded public lands) and (ii) distributing over 650 million seedlings for small holder (i.e. farm) tree planting. Included in these projects were provisions for relevant institution building, including elements to cover such phases as extension and monitoring and evaluation (Slade and Noronha, 1984).

India's large scale social forestry program continues. Similar projects have been mounted during the past fifteen years in many other south and

southeast Asian

countries, in Africa, Central and South America. This new applied science has seen many successes, not a few set backs, and many lessons have bee learned.

Although the marked surge of interest in social or community forestry that occurred in the middle and later 1970's took place for reasons that varied from place to place, several common features were evident. Important among these was a trend towards using a rural development approach that integrated agriculture and forestry. This approach provided at the same time, means of countering the environmental degradation that was resulting on an increasing scale from the use of less efficient traditional approaches (Arnold, 1989).

The design of earlier social forestry programs, e.g. in the 1970's tended to be based on analysis that were incomplete. Many were of the nature of quick technical fixes that did not reflect proper understanding of the needs of the people concerned, of the complexity and importance of the economic and social factors involved, or of the interactions between them. The design weakness was due to many factors. These included a lag in applied research; insufficient or inadequate on-farm research; too much pressure within the forest department to achieve planting targets before completion of the ground work. Project designs tended to lack ecological, economic, social and administrative soundness and balance (Arnold et al, 1978a; Arnold, 1989; Bene 1981).

Expansion of social forestry programs and continued development of the systems and models entailed were encouraged by three events in the late 1970's.

- publication by FAO in 1978, with support from SIDA, of the seminal publication "Forestry for Local Community Development"
- issue by IBRD of its 1978 Forestry Sector Policy Paper which called for a major change of direction of development within sector that would de-emphasize industrial forestry in favor of environmental protection and meeting local needs
- the initiatives by IDRC (Bene et al., 1977) that led to creation of ICRAF to promote research and training in Agroforestry (Arnold 1989).

These events have been reinforced by encouragement and guidance from the organizations that generated them and many others. This coupled with experience gained during the past two decades and the outputs of perceptive analyses as those that have been drawn upon for this review, have been responsible for the clearer picture

that is emerging now of:

- the nature and magnitude of the needs of rural communities engaging in social forestry
- the impacts of shortages on the thinking and subsistence activities of the people concerned, and
  the ways in which people respond to such shortages.

Important outcomes of these trends include improvement of designs and thus perceptible increases in the effectiveness of project implementation. (Arnold 1989.) Forestry administrations are now much more inclined to work with other discipline, e.g. agriculture, in mounting social forestry programs.

Some Key Characteristics of Social Forestry Systems

Three major aims of social forestry, were noted by FAO (1978) to be:

- provision of fuel and other goods to meet basic needs at rural household and community level
- provision of food and the environmental stability necessary to sustain such food production
- generation of income and employment in the community.

The production of tree based commodities at village level is often embedded in complex resource and social systems influenced primarily by human factors. This necessitates situation specific development approaches since generalized approaches or those focused on a single element of the situation are unlikely to provide a solution. (Arnold 1989.)

A primary feature of social forestry projects is a high degree of direct participation in all program phases by the people on the land, the villager in general (particularly those who needs the outputs) and their boards and committees. Their participation in design and implementation are key characteristics. The motivation for participation, as Burch (1987) noted, is not primarily that people are concerned with trees, but rather with a number of important functions or commodities that are dependent on them or on wood: shelter, cooking, warmth, food, fodder, for example. In most situations social forestry can never be more than a component of a rural system. Social forestry, as practiced, much accordingly be compatible with the broader framework within which it is conducted. (Arnold, 1989.)

In social forestry, the basic issues are not the technical ones but social and economic, for example:

- those that have to do with changing, in important ways, the role of technical officials, administrators, villagers at various social levels.
- integrating tree growing into land use, involving interaction at community and other levels between forestry, agricultural and livestock specialists and practitioners
- recognizing and providing effectively for forestry's role in food production and security. (de Montalambert, 1987.)

These observations have profound implications for organizational and working relationships among administrators, technical specialists, program managers and the rural communities directly concerned. They also imply that the research needs of social forestry are equally broad and not confined to technical matters.

Definition and Description of Social Forestry and Component Models

There is frequent misunderstanding of the meaning of "social forestry" and of the terminology applied to the forms of activity that it encompasses. This is not surprising in view of the wide range of disciplines, institutions and activities entailed.

The disciplines include agriculture, forestry, sociology, economics, public administration. The institutional activities encompass research, extension, program management and administration. Those engaged in each of these disciplines and activities and the farmers and other villagers tend to develop their own particular perspectives, priority concerns, concepts and jargon.

Give this complexity and the rapidity with which the related new approaches to land use have been developed over the past two to three decades, it is important to be clear what we mean by social forestry and the terms we use to denote the principal forms that it takes, as we address the main issue before this session: the institutional and human resources required for research in social forestry to ensure effectiveness of efforts to develop instruments of sustainable development. If we are not specific in the meanings we attach to this terminology, there would be a danger of the underlying concepts being confused and the purpose of this session frustrated.

Firstly, social forestry: I propose that we use this term in the sense that it is defined by Gregersen and his colleagues. (Gregersen et al, 1989.)

Thus the term social forestry is used here interchangeably with community forestry, farm and community forestry and forestry for local community development to cover a broad range of tree or forest related activities that rural landowners as well as other users and community group undertake in order to provide products for their own use and to generate local income. The activities include individuals or communities growing, for their own use or for sale, fuel or other wood products, or gathering, processing and selling non-wood forest/tree products such as fruits, herbs, honey and vines. It can also relate to tree planting on public lands by governments or other groups to meet such local needs. Social forestry is distinct from conventional production forestry, however, in that, in the former, the primary focus is on people or community involvement and on the trees that yield the direct and indirect benefits rather than, as in conventional production forestry, principally on the intensity of production and the industrial wood that the trees produce.[1]

Five basic tree management models are used in social forestry. They are defined on the basis of (i) who does the planting and tending, (ii) the land tenure category used, and (iii) who will have the access to the benefits. The first four models involve planting the trees while the fifth entails improved management of existing (natural) woodlands. The five models are:

1. Community woodlots: planting by the community, government or NGO's on community owned land, the benefit being shared by the community.
2. Farm Forestry: planting is done by farmers on their own land on various patterns. Prominent in this category are several forms of Agroforestry.
3. Tree tenure forests: planting and disposal of the products are undertaken by individuals for their own benefit on land allocated (but not alienated) for the purpose.
4. Government forest, planted on government land: includes block plantations in forestry reserves, strips plantation along roads, railways, canal. The government department concerned sells or gives the output to individuals or communities.
5. Joint, controlled management of communal or public woodlands, with local participants receiving defined quantities of products or other benefits (grazing, fodder, wood) either free or at agreed prices.

Agroforestry is an applied science applicable under each or any of the foregoing five

[11]The author is grateful to Dr. Hans Gregersen for reviewing this rendering of the definition of Social Forestry.

models of social forestry. Based on the definition in ICRAF's 1990 draft Strategy to the Year 2000 (Anon. 1990) this is a collective term for land use systems and practices in which woody perennials (tree, shrubs, bamboo's, vines etc.) are deliberately integrated

with crops and/or animals on the same land management unit. There must be both ecological and economic interactions between the woody and non-woody components to qualify as Agroforestry.

Research Needs

Elements from each of four groups of aspects pertaining to social forestry intervention may require research and testing inputs to enable robust design and reasonable assurance of success of the interventions to which they are applied. The groups are:

- the economic ones, e.g. optimizing the return to the grower on the resources which he invest
- the social ones, e.g. having to do with minimal disturbance of or conflicts with other community interests and activities; optimum shared effort in implementation and management, and maximum equity in sharing of the proceeds by those concerned
- the environmental ones, e.g. the ensuring that the enterprise does not degrade environmental features of the area but rather, improves them
- the scientific or technical ones, i.e. the agricultural/forestry/ environmental technologies appropriate to the intervention as designed, aimed at ensuring attainment of the technical objectives as well as satisfying those of the other three groups.

In addition, it would usually be necessary to examine the interactions, in any intervention or design, among these four groups of features, to ensure compatibility with success.

Aspects (economic, social etc.) selected as the most appropriate in each instance, would be incorporated in the designs of interventions to develop and manage tree management model of the kinds defined in the previous section. The research effort would continue for as long as deemed necessary, in the form of monitoring and evaluation, i.e. the process used to check the degree of validity of the design in use and to make corrective adjustments as necessary.

In order to optimize the chances of success of intervention and to minimize the risk of giving the farmer poor advice the research should normally be location specific and its features (economic, scientific, etc.) integrated.

Implication for Institutional and Human Resources

By definition (see Section 4 above) the primary focus in forestry is on people and community involvement and on the trees (associated in various ways with other crop plants and sometimes with animals) that yield the direct and indirect benefits sought.

The complexity of the physical, social and economic dimensions of the rural systems within which social forestry must be integrated accounts for the wide span of disciplines as well as administrative and other functional entities which this field of development entails. A high degree of coordination among all the entities concerned is necessary at the working level to ensure effective data gathering, analysis and synthesis (i.e. research); policy formulation, and project design, planning and implementation. (Arnold, 1989; Bene, 1981.)

A key feature of social forestry is recognition of the need to involve representatives of target groups, including women and the landless, in data assembly and analysis (i.e. research, in part) as well as in design. The planning and implementation phases of project development are necessarily concerned with forging strong linkages, at all levels concerned, between the various disciplines and institutional entities involved. (Arnold, 1989; Arnold et. al., 1987a, b; Bene et. al. , 1980; SIDA, 1982.)

The development of institutional arrangements for delivery of extension services, with associated arrangements for monitoring and evaluation of project implementation and progress, which was urged in FAO (1987), as well as the necessary appropriate trained personnel, has been an important feature of social forestry programs. The tendency in India has been develop joint agriculture/forestry extension and monitoring and evaluation units. Experience has indicated the value of these activities, conducted on a participatory basis, in relation to development and refinement of social forestry technologies and to assisting farmers to develop their own problem solving skills. (Arnold, 1989.)

The research needs for design, planning and implementation of social forestry programs can be - and are - met, at least in part, by existing in-country forestry and agricultural and economic research organizations; and universities faculties. That these resources are frequently limited and require strengthening to provide the new analytical, design and managerial skills needed, is apparent. Meantime, valuable support is being rendered, often on an ad hoc basis, by aid organizations, NGO's and

universities, the latter often operating through the two first mentioned kinds of agencies. A good example of support of this kind by aid agencies is the current joint, high priority, FAO/SIDA initiative to

develop implementable, practical participatory methods of problem identification and project design. (Arnold, 1989.)

Conclusion

Social forestry (sometime called community forestry) is practiced through the medium of any one of the five tree management models defined in Section 4, which can include Agroforestry applications.

The extent of acceptance of social forestry as an approach to meeting the needs of rural people and the research and research development support it is already receiving (but which must be increased where necessary, and be sustained), indicate that it is here to stay- and will grow in importance - as a major effective approach to rural development.

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