# PUTTING SOCIAL FORESTRY AND COMMUNITY FORESTRY IN PERSPECTIVE IN THE ASIA-PACIFIC REGION

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The purposes of this paper are: 1) to review briefly the concepts of community and social forestry, 2) to propose a typology of the various 'social' approaches to forestry, and 3) to offer some comments on both the potential and the limitations of the community forestry concept.

Throughout the developing world, a myriad of projects and programs are being implemented under the titles 'social forestry', 'community forestry', 'village forestry', 'village woodlot forestry', and others. In concept, at least, these activities have, as a common denominator, a 'social' approach that involves local participation in forestry related activities to meet local needs.

Noronha (1982) suggests that the social approach to forestry differs from traditional forestry in three ways: 1) it is concerned with the non-monetized sector of the economy, 2) it involves direct participation of the beneficiaries, and 3) it requires that the forester change his role from that of 'protector' of public forests to that of extension agent at the community level.

The forestry-related activities to be encouraged at the local level have been described by the FAO (1978) as:

> a spectrum of situations ranging from woodlots in areas which are short of wood and other forest products for local needs, through the growing of trees at the farm level to provide cash crops and the processing of forest products at the household, artisan or small industry level to generate income, to the activities of forest-dwelling communities.

Specifically excluded are the industry forestry or other forms of forestry which contribute to community development solely through employment of wages.

**Impetus to Social Forestry**

Although a few nations (e.g., Korea, China, India) have utilized social or community forestry programs for several decades, widespread international interest in social approaches to forestry did not arise until the mid 1970s. Factors giving impetus to this interest included:

- a growing concern over the rapid rate of forest cutting and forest conversion in much of the tropical world, coupled with a not fully substantiated belief that encroachment by people hungry for fuelwood and other forest products was a major cause of forest clearance (deforestation)

- a belated recognition of the critical dimensions of fuelwood shortages in parts of Africa and Asia, including the implications for nutrition and the diversion of dung from fertilizer to fuel use
- a realization that policies promulgating industrialization were not effectively attacking the problems of rural poverty.

- the growth of an environmental ethic, giving rise to increased awareness of the ameliorative effects of forests on deteriorating or degraded environments.

- a slowly dawning recognition by professional foresters that their custodial attempts to police the public forest domain were fruitless without local, public support and

- the fact that an increasing number of developing countries made the transition from wood-surplus exports to wood shortage importers and felt impelled to make internal adjustments in their wood economies.

**Institutional Response**

This constellation of factors generated important institutional and organizational responses in the late 1970s. The World Bank, although not abandoning assistance to the industrial forestry sector, shifted its emphasis to encourage small-scale, local forestry activities designed to promote local development (Spears, 1978). In 1978, the FAO issued its position paper on "forestry for Local Community development" and, thereafter, has cooperated with the World bank to actively promote the social forestry approach. In the same year, the Eighth World Forestry Conference in Jakarta adopted as its theme, "Forestry for people," and examined in detail the implications of social forestry for both the profession and its practitioners. Thus, encouraged by international and national donor agencies, many nations have now established social forestry programs. In fact, today some form of a social forestry program exists in every Asian nation. A research agenda for social forestry has been set forth by Romm (1982).

**The Appeal of Social Forestry**

The widespread and rapid acceptance of the social approach to forestry is related, no doubt, to its broad appeal. Various proponents of social forestry have suggested that the establishment of village woodlots, the afforestation of wastelands, and forest farming for cash crops would solve many different problems at once. Villagers with their own

supply of fuelwood would have no need to collect fuelwood in national or state forests or biosphere reserves, which many nations find impossible to police. Village woodlots would solve the problem of fuelwood and fodder shortages, enable the creation of cottage industries, and supply building materials. The establishment of community forests would reduce erosion, local flooding frequency, downstream sedimentation in reservoirs, ameliorate village climates, and in many cases beautify the landscape. Social forestry would cost relatively little and would be self-perpetuating. Finally, the idea appealed to some Westerners because a sort of participatory democracy was to be established at the village level. It would be difficult for anyone to resist an approach with so many potential benefits.

## Classification

From such beginnings, social approach to forestry, now tempered by both successes and failures, continues to flourish and, indeed, has evolved into such a wide variety of programs at the international scale that a tentative classification scheme may be useful. One possible typology follows. The categories are by no means mutually exclusive. A major purpose in presenting the classification is to distinguish between the broad, all-encompassing category, 'social forestry', and one of its components, ' community forestry'.

## Social Forestry Programs

Sociological considerations dictate the division of social forestry into programs requiring collective action and programs requiring individual action. Programs requiring collective action include national campaigns, special interest group activities, and community forestry (village-based). Programs requiring individual action include trees for farmers, trees for residual areas, and contractual programs. Social scientists note that resource development innovations requiring collective adoption rather than individual adoption are more difficult to introduce due to the necessity for consensus and simultaneous action (West, 1978). Indeed, in most cases, social forestry programs at the individual level have been more successful than program aimed at the community level. For example, in Gujarat, the "farm forestry" program that provides seedlings to individual landowners for their own use has been resoundingly successful (Tawara, 1982), while the village self-help reforestation projects on communal forest lands have been disappointing (although some suggest that it has been too early for a fair evaluation).

The successful introduction of innovations through collective action requires a greater understanding of and sensitivity to the socioeconomic and sociocultural conditions of the community. For example, the designation of lands to be utilized for a collective social forestry program faces greater obstacles than for projects directed at the individual. In individual action situations, each farmer or contractor simply decides to use his/her own land or a designated plot for forestry purposes. When the

inputs and

benefits are to be shared by the community, however, an insensitive choice of sites can be disastrous.

For example, Eckholm (1975) described an example of a failed community reforestation project in an area of Ethiopia operating under a "quasi-feudal land tenure system." Since the land selected for the project belonged to a powerful landlord, the local people, believing they would not receive a fair share of the benefits, sabotaged the project by planting seedlings upside down. In contrast to the Ethiopian situation and many villages in India, Noronha (1981) attributed the success of Korean village woodlot projects to the homogeneity of the Korean villages, unsegmented by caste, tribal affinity, or great disparities in wealth.

Beyond the distinction between collective and individual social forestry activities, classification becomes more difficult. Nonetheless, three general kinds of collective activity can be distinguished.

*National Campaigns*. Often symbolic, these campaigns are designed to raise the level of awareness of the benefits of tree planting. Included here are the Festival of tree Planting (Van Mahotsva) in India (Srivastra, 1978) and national tree planting days in Gambia and Senegal (Hoskins, 1980).

*Special Interest Group Activities*. Hoskins (1980) has described how urban women in Kenya solicited money for a tree planting campaign. Money collected by the women was used to pay rural women or handicapped individuals to plant and care for trees for a five-year period. In Senegal, Boy Scouts and school groups are hired during the summer to plant trees. In India, Nature Lovers' Clubs, Friends of Trees Clubs, the YMCA, and many schools and universities are active in reforestation efforts (Dalvi, no date; Pant, 1980).

*Community Forestry*. Community programs are directed at the better management of village woodlots, the designation of parcels of public (state) forest as community forest, the reforestation of degraded public forest lands, the afforestation of wastelands, and the development of village level forest product, cottage, and artisan industries to improve the living standards of the village. The primary characteristics of community forestry activities include collective decision making and action, and the sharing of benefits and costs by the community as a whole. As community forestry is the focus of this chapter, more detailed descriptions and analysis of these programs follow the discussion of the classification of social forestry programs.

Social forestry programs utilizing individual action also can be divided into three subclasses.

*Tree for Farms*. These programs encourage tree farming by individual landowners.

In some cases, agroforestry systems (see following discussion on agroforestry) are

encouraged, and in other cases, farmers with lands marginal for any kind of annual agriculture are encouraged to convert solely to tree crops. The Paper Industries Corporation of the Philippines (PICOP) joined with the Philippine Development Bank in a successful program that provided loans, technical assistance, and a guaranteed market to individual landowners to develop tree farms to produce pulpwood for a nearby pulp mill (Hyman, 1983b). Although the program was originally intended to encourage agroforestry, 93% of the participating farmers preferred to plant trees because the pulp wood production was more profitable in the long run, and most of the participants were relatively well-off financially and able to wait for the financial returns (Hyman, 1983a). If poorer farmers are included in the program in the future, the restoration of the agroforestry approach would provide needed income during the eight years prior to tree harvesting.

***Trees for Residual Areas***. This version of social forestry encourages individuals or families to plant trees around homes and other private lands in both rural and urban areas. In India, through the "A Tree for Every Home and a Forest for Every Village" program, the Forest Department provides technical assistance and tree seedlings to individuals to plant around their homes. Both shade/aesthetic species and also economic species such as mango, guava, coconut, and curry leaf are provided under the assumption that, if every family (both rural and urban) planted one tree annually, at least 100 million trees would be planted every year. Another program in India entrusts the establishment and care of particular trees along avenues in residential areas to individual families (Krishna Murthy, 1982). Similar programs have existed in China since 1958, when Mao exhorted his people to "cover the country with green trees" (Rao, 1983). The Javanese homegardens provide an excellent example of a traditional agroforestry system developed spontaneously without a program. For centuries, gardens surrounding village homes in Java have included not only annual food crops but also a wide variety of trees for production of food, wood, fodder, and green manure (Widagda et al., 1984).

***Contractual Programs***. Many social forestry programs are based on contractual relationships between landless farmers and an outside entity (forest department, private companies). In India, the "Social Security through Forest plantations" program assigns 37.5 ha plots of degraded forest land to landless families who replant at a rate of 2.5 ha/yr for a 15-year period. The families receive a fixed salary, building materials, minor forest products, and 20% of the net profit from the harvest at the end of the 15-year period (Dalvi, no date). Many *taungya* agroforestry schemes that incorporate agricultural crops in the first few years of plantation development are also included under this class of social forestry. For example, the "prosperity approach" of the Indonesian State Forestry Corporation, Perum Perhutani, contracts farmers to carry out reforestation work in exchange for the use of inter-row spaces for crop cultivation (Atmosoedarjo and Banvard, 1978). As Rao (1983) stated, "In Indonesia it is now

accepted that social forestry implies two-way traffic, e.g., foresters are allowed to go

into the village to promote tree planting on agricultural lands, while villagers are encouraged to go to the forest to plant food crops."

**Agroforestry and Social Forestry**

Although agroforestry often is designated as a subdivision of social forestry, we view agroforestry schemes as production techniques suitable to a wide variety of contexts including but not limited to social forestry. Agroforestry can be defined as any system that combines (either spatially or sequentially) the production of woody perennials on the same unit of land as agricultural crops and/or livestock. The objectives usually include more stable, sustainable land use, soil conservation, increased net income, and/or risk minimization through diversification of production.

In this light, agroforestry techniques are compatible with ( and indeed desirable for) several of our social forestry subdivisions. In community forest programs, *taungya* agroforestry techniques could be used in village woodlots establishment to provide returns to the community during the early years of the project prior to tree harvests. In community village woodlot projects in Khon Kaen, Thailand, silvipastoral techniques (agroforestry combinations of trees with grazing) were used to overcome the problem of the traditional use of village lands for grazing (Rathakette, 1983). Agroforestry possibilities under "individual action social forestry" are numerous and applicable to all three subdivisions as described above.

Furthermore, agroforestry techniques are not limited to social forestry programs but are also applicable to large industrial enterprises such as the Jari Forestry Project in Amapa, Brazil (Budowski, 1982). Thus, agroforestry is viewed as a production technique sustainable to many social forestry schemes but not as a subdivision of social forestry.

**Community and Social Forestry**

The remainder of this paper is devoted to community village-based forestry programs requiring collective action - as a subset of the broader subject of social forestry. It should be recognized, however, that in some instances, it is difficult to make a clear distinction. In India, for example, there are two types of village woodlot programs: "supervised" and "self-help." Under the supervised system, the Forestry Department requests a village to set aside land (leased or owned by the community) and then undertakes the work of planting, maintenance, and protection. At harvest, the village receives 50% of the profit. The self-help woodlots, on the other hand, are managed entirely by the village with the Forestry Department providing free seedlings and technical advice. All profits go to the village. Clearly, the two schemes utilize

significantly different levels collective decision making, action, and sharing in woodlot profits, both may be considered community forestry projects. Furthermore, in some village woodlots in West Africa, while trees are planted on communal land, the

individual who planted each of the trees regards herself or himself as the owner of the identifiable plants.

**The Potential of Community Forestry (or Why Community Forestry?)**

Community forestry programs offer both the greatest challenge and the greatest opportunity for positive change in rural communities. Although individual action social forestry is easier to initiate and often less costly, the results too often fail to significantly aid the truly needy segments of the community and only enhance the financial situation of individual landowners who are already relatively well-off. Successful rural development schemes must include all strata of the community and ensure the benefits reach the poorest of the poor, the landless, and the unemployed. In individual action social forestry, however, the pattern of land ownership continues to determine who receives the benefits.

For example, one of the stated goals of the PICOP project in the Philippines was to improve the financial and employment situation of a substantial number of *kaingineros* (shifting cultivators). Yet, only land owners were eligible to participate in the program (virtually eliminating the inclusion of *kaingineros*). In fact, the income of the eligible participants averaged more than twice that of the Philippine national average (Hyman, 1983b). Furthermore, one of the reasons the farmers participating in the PICOP project avoided the agroforestry approach was because it required greater labor inputs. Thus, although the project was successful, from PICOP's perspective, in reducing the cost and uncertainty of industrial raw materials and for the landowners who reduced labor costs and increased their profits, it did little to increase employment or to improve the living standards for those in the community most in need.

In India, generating new employment opportunities and raising incomes of the rural poor (particularly landless agricultural laborers) are two major objectives of the social forestry program. Far too often, however, the programs directed at individuals achieve exactly the opposite effect. According to Shiva et al. (1982), conversion from food crops to Eucalyptus plantations results in a loss of 250 person days of employment per hectare per year, and despite the government's call for the "utilization of hitherto unutilized communal lands" for social forestry, 10,000 farmers in Gujarat have converted lands from food production to monocultures of Eucalyptus (which is usually sold directly to the pulp and rayon industries). The resulting reduction in employment opportunities and local food availability has led to increasing pressures on reserved forests by villagers who remove firewood not for their own use but for sale in urban and semiurban areas.

These are but two examples. Apparently, in individual action social forestry, market demand (primarily from large urban areas or industrial operations) dictates the patterns of land use, production techniques, and choice of tree species. Individuals, seeking to

optimize their own financial situation, tend to reduce labor inputs and utilize lands and species that bring the highest price from national markets with little consideration of the local community's needs, desires, and ability to pay.

As Shiva et al. (1982) concluded:

> While afforestation can be taken up primarily for high commercial returns by individuals, if it is to lead to improvement in community services, the better satisfaction of basic needs and a stable resource base, then the involvement of the community in planning, raising, and using the forests becomes a practical necessity.

Thus, of the many varieties of social forestry, community forestry offers the best hope for broad-based rural development.

**Limitations of Community Forestry**

During the last decade, much has been learned about the extraordinary complexity that must be overcome in order to successfully implement community forestry projects. A concept appealing in its simplicity has turned out to be exceedingly difficult to put into practice. Scattered throughout the literature are many examples of lessons that have already been learned. Community forestry cannot be imposed from the top down - local residents must be involved at every stage of the planning process. The choice of which species of tree to plant is as much a cultural as an ecological decision. Means must be devised to permit consultation with the women of the community who have much to do with the choice of fuel for cooking or heating. The distribution of the benefits of the project must be spelled out in detail before the project commences. Governments must demonstrate a commitment to the project in terms of budget, human resources, and priority. Technical expertise must be available. Foresters must learn to assume new roles. Credit must be available. Short-term benefits must be offered in order to induce acceptance of a program with mainly long-term benefits. And, finally, the socio-economic structure, culture, and local politics must be understood thoroughly.

**Community Forestry in a Rural Development Context**

To view the above lessons as conditions that must be met before implementing community forestry projects is probably an unrealistic goal. Yet their existence

suggests another, perhaps more important lesson: If community forestry is to succeed on a significant scale, it must be integrated into an overall, multifaceted rural development program.

The shortage of fuelwood in parts of the Third World is only a symptom of a serious population/environment imbalance, the causes of which are imperfectly understood. Certainly these include population growth, the breakdown of traditional values,

unanticipated impacts of national policies, and growing inequities in the distribution of the benefits of modernization. Planting trees will not eradicate these problems. In Nepal's steep lands, much illegal fuelwood cutting is due not only to the search for scarce fuelwood, but also to a perceived need to convert more forestland into grazing or cropland (Bajracharya, 1981). This problem, too, cannot be rectified simply by planting more trees for fuel.

On a national scale, the only village woodlot program to reach its goals is that of the Republic of Korea. This program is notable not only for its scale, but also for the flexibility of its approach. The program began with a national survey of requirements and estimates of yield throughout the country. Fuelwood plantations were established on lands under varying types of ownership. The key to the program was the establishment of Village Forestry Associations (VFAs) that are integrated into a national hierarchy and that are intimately involved in local level planning. In some case, the VFAs have entered into voluntary "yield sharing contracts" with private landowners (70%-75% of the forest land is privately owned), whereby the VFAs manage the land for the landowner and benefits are shared. "Trust management" of private lands also can be mandated by the government. In such cases, the VFAs take over management of the land, either through a yield sharing contract or by requiring reimbursement from the landowner for expenses incurred. Finally, there is a system for leasing "not to be reserved" forests to VFAs. If managed according to government standards, the forests are granted outright to the VFAs (Arnold, 1982).

Most significant, perhaps, is that the structure and function of the woodlot program complemented the existing rural development program already in place, called *Samauel Undong* or "new community." This program was developed in order to reduce the income disparities between rural and urban dwellers. Thus, in 1973, when the government embarked on the national reforestation program, the village woodlot program was not viewed as a radical innovation but, instead, was seen simply as another element in the "new community" program. The experience of the Korean program suggests the advisability of coupling community forestry with other rural development programs.

Factionalism at the village level has been mentioned as a potential problem in community forestry projects. If an array of benefits are available to the various separate interest groups of a village through a rural development program, resistance

or sabotage by any one group is less likely. Romm (1979) stated that since a village is a collection of people with different powers and interest:

> everyone whose cooperation is required for the success of a (collective) project must gain at least enough from it to sustain his or her commitment for the village unit. It must be able to satisfy the minimal requirements of all necessary participants.

Finally, the experience of professional outside the forestry discipline offers insights into the risks of myopic visions of community forestry. The plant geneticists who fathered the Green revolution now know that agriculture cannot be divorced from its social, economic, and political context; higher yields do not necessarily signal the end of rural hunger. Sanitation engineers have learned the importance of literacy; civil engineers have been discomforted by the lessons of ecology; and public health workers, because of past mistakes, now often turn to the field of anthropology.

## Putting Community Forestry in Perspective

Putting community forestry in perspective, then, begins with the understanding that the complex and multifaceted causes of rural poverty will not yield to any single remedy, no matter how well planned or brilliantly executed. In proper perspective, community forestry should be viewed as a valuable tool, but one subject to many limitations. Most importantly, these limitations need to be communicated to government planners and policy makers who, without guidance, may come to view community forestry as a panacea.

Putting community forestry in perspective also means that foresters should resist being placed in a position where they will fail. To the extent possible, this means insisting that community forestry projects be but one component of an overall rural development effort. Certainly, there is value of expanding the scope of a forester's training to include exposure to economics and the social sciences, but the forester who is asked to leave his traditional habitat and venture into a village should seek the help and guidance of the economist, social scientist, and anthropologist. Indeed, the success of his own activities may largely depend upon his success in ensuring that representatives from these or related disciplines are there in the village with him. The fuelwood and fodder shortages plaguing parts of the Third World are symptoms of deep social problems far beyond the capacity of forestry alone to solve. Alleviation of these shortages will depend upon the extent that governments understand this fact. It is only within such a context that community forestry can succeed (see Rambo, 1983).

Finally, one should recognize that "rural development itself is like an old hat, shapeless and made to fit any head" (Rao, personal communication). The objectives,

strategies, and target groups for rural development vary from government to government and region to region. Indeed, not all governments agree (and, in fact, many are opposed to the concept) that a community approach involving local people in decision-making and benefit sharing, and addressing the collective needs of the rural poor, is essential for rural development.

Thus, although successful community forestry projects will necessarily be flexible and molded to fit the needs, abilities, and socioeconomic and cultural contexts of each community, a framework for an "ideal" community forestry program may be needed. A

major thrust of this framework would include an analysis of the interactions and interrelationships between social systems and ecosystems and the implications for rural development and community forest management.

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