

PROBLEMS AND PROSPECTS OF COMMUNITY FORESTRY: SOME INSIGHTS FROM THREE CASE STUDIES IN WESTERN INDIA

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Summary

Most of the village common lands in India are highly degraded and suffer from what Garrett Hardin called 'the tragedy of the commons'. The productivity of these lands is far below their potential. The unabated erosion and wanton misuse of those lands over the years have led to environmental degradation. Realizing the need to rehabilitate those lands, Government of India (GoI) and many non-governmental organisations (NGOs) are also now engaged in the task of afforestation of India's village common lands through a variety of community forestry programmes (CFP). This paper presents the main results and insights from three case studies of CFP conducted in the State of Gujarat. The specific objectives of the case studies were to find out the major constraints in implementing CFP; to examine the roles played by the government and NGOs in CFP; and to determine the prospects of CFP. The case studies document and analyse the experiences of three different organisations namely, Aga Khan Rural Support Programme (India) - an NGO; National Tree Growers' Co-operative Foundation - a co-operative; and Gujarat Energy Development Agency - a semi-government agency, all engaged in CFP. Collection of data was accomplished using the case study method and structured interview method.

The analysis of the case studies revealed that it is not the lack of availability of funds from the government agencies and the external agencies but some other constraints, which are hampering the progress of CFP in India. Some of the constraints identified were: problems in acquisition of government owned village common lands for CFP; encroachment of village common lands; lack of coordination among various government departments as well as with NGOs; and lack of arrangements for equitable distribution among beneficiaries of benefits from community plantations. The peoples' participation was found to be one of the major ingredients of the CFP as it results in cost effectiveness and sustainability of such programmes. The study also brought out the need for GoI to continue to promote through NGOs, Tree Growers' Co-operative Societies (co-ops) and other such organisations various CFP in the country. The case studies revealed that the main strength of NGOs and co-ops vis-à-vis the government lies in organizing villagers and enlisting their participation in plantation programmes. The government should also focus more on degraded forests with

good rootstock as their rehabilitation through community participation is relatively less expensive than afforestation of wastelands. The plantations raised through community participation were found to be financially viable. The study suggests that the need of the hour is to have a sound policy, which removes various obstacles in the way of CFP in India. If that is done, CFP have great potential in India as an instrument of rehabilitating wastelands and thereby arresting the environmental degradation and increasing employment and income opportunities in rural areas.

Key words: community forestry, non-governmental organisations, community plantations, wastelands, afforestation, people's participation, funds, encroachment, costs, benefits, financial feasibility.

Introduction

Most of the non-agricultural land (roughly 76 million hectares [ha]) in India can be classified as village common lands (GoI 1988). *De jure* most of these lands are owned by revenue departments, forest departments and village panchayats. But, *de facto*, they are used in common by villagers. Hence they are known as village common lands. Most of the village common lands are highly degraded and suffer from what Hardin (1968) called *The Tragedy of the Commons*. The productivity of these lands is far below their potential. Their unabated erosion and misuse over the years have led to environmental degradation. Realizing the need to rehabilitate these lands, Government of India (GoI) and many non-governmental organizations (NGOs) have taken up the task of afforestation of India's village common lands through community forestry programmes (CFP).

Of late, it has been realized that NGOs can do a better job than the government of motivating and mobilizing the masses for taking up plantation programmes and in securing the rights of forest dwellers (Kothari 1986). The NGOs have the advantage of functioning at the grassroots level with missionary zeal for overall community development. They can be more effective than the government agencies in focusing attention on the *target population* of underprivileged sections of society. According to World Bank (1993), the strength of NGOs is not in substituting for the forest departments in afforestation efforts but as a compliment to their activities.

In the last one decade or so, a number of CFP have been implemented in different parts of India. According to Agarwal and Saigal (1996), nearly 15,000 community groups (known by different names in different states in India) are managing over 1.5 million ha of forest lands. There is no doubt that these programmes have played an important role in the Herculean task of greening India as well as tackling the problem of chronic rural unemployment plaguing the country. However, CFP in India are being hampered by a number of constraints, which if rectified will definitely give a boost to such programmes.

In this paper, first a brief profile of three organizations, namely, Aga Khan Rural Support Programme-India (AKRSP[I]) - an NGO; National Tree Growers' Co-operative Federation (NTGCF) - a co-operative; and Gujarat Energy Development Agency (GEDA) - a semi-government agency involved in implementation of community forestry (CF) in the State of Gujarat has been presented. Then various problems/constraints on CF are identified and discussed. Finally, a prognosis of the future prospects of CF in India is presented.

The specific objectives of the case studies presented in this paper were to find out the major constraints in implementing CFP; to examine the roles played by the government and NGOs in CFP; and to determine

their financial feasibility and future prospects. Collection of data was accomplished using the case study method (Young 1977). The three case studies together cover five plantation sites.

A Profile of the Sample Organizations

A brief profile of the organizations studied and involved in implementing CFP is given in the following paragraphs.

AKRSP(I): The AKRSP(I) was set up in 1983 with its field head office located in Ahmedabad, Gujarat and registered office in New Delhi. The basic objective of the AKRSP(I) is to alleviate rural poverty, especially poverty of the weaker sections of rural society. The AKRSP(I) believes that this objective can be achieved by organizing rural people into viable and self-supporting organizations and building their capacity to identify their problems and determine their priorities, take collective action to solve their problems and gain access to technology, resources and services available from government and other agencies (AKRSP(I) 1990). In a nutshell, AKRSP(I)'s role in rural development could be likened to that of a catalyst and facilitator.

The AKRSP(I) is involved in implementing CFP for rehabilitation of degraded village common in the vicinity of villages in their project areas. To implement CF, the first step the AKRSP(I) takes after selection of a village is to form a *Gram Vikas Mandal* (GVM), which is registered as a *Tree Growers' Co-operative Society* (co-op).

The GVM is formed through a democratic process and a committee is formed with one of the members as Chairman and another member as Secretary and remaining as ordinary members. The GVM looks after all the programmes implemented by AKRSP(I) in the village such as CF, watershed development, agricultural input supply, farm forestry etc. The extension volunteers who are selected from amongst the villagers and trained by the AKRSP(I) support these programmes.

NTGCF: To organize tree co-ops in India, a bold initiative was taken by the National Dairy Development Board (NDDB) in 1986 and for this purpose, a national level autonomous organization, the NTGCF has been established with its headquarters at Anand. The NTGCF is working in six states of Gujarat, Andhra Pradesh, Orissa, Karnataka, Rajasthan and Uttar Pradesh for organizing tree co-ops. The main objectives of a co-op are to motivate its members and other village people to grow trees and grasses of suitable species on their own marginal agricultural lands and degraded village common lands to meet the local needs of various forest produce.

The governance structure of a typical co-op consists of a General Body (GB), a Management Committee (MC), an Honorary Chairperson and a paid Secretary. The GB comprises all the members of the co-op and has the supreme powers conferred on it under the *Co-operative Societies Act and Rules* and its own bylaws. The MC is responsible for implementing the policies determined by the GB and for the overall administration and management of co-op. The Secretary looks after the day to day matters of the co-op (for details about tree co-ops, see Singh and Balooni [1997]).

GEDA: Energy plantations is one form of afforestation for efficient utilization of wastelands and could help in stabilizing soil conditions as well as meeting the increasing demands of the growing human and livestock population for fuel and fodder, respectively. Ninety three per cent of the village population in India uses firewood for cooking, which is collected from the forests (ORG 1988).

The annual firewood requirement of Gujarat State in India amounts to 7 million metric tonnes (MMT). Against this, the production of firewood from forest areas is about 1.1 MMT (ORG 1988). Keeping in view the growing gap between demand and supply of firewood and the need for rehabilitation of vast tracts of wastelands, the GEDA initiated energy plantations in District Kachchh in Gujarat, in 1986.

Energy plantations are done by GEDA under the auspices of and with financial support from the Department of Non-conventional Energy Resources (DNES), Ministry of Energy, GoI and the Government of Gujarat. DNES commissions interested governmental and NGOs to conduct field demonstrations at the national level with the objective of creating awareness about energy plantations at different levels. In this paper, we shall use the term 'community forestry' for 'energy plantations' as GEDA has raised energy plantations on the principles of CF. Table 1 illustrates the CFP implemented by these three organizations.

Table 1. Salient Features of Case Studies on Community Forestry in the State of Gujarat.

Salient features	Aga Khan Rural Support Programme (India)	Gujarat Energy Development Agency	National Tree Growers' Co-operative Federation
Location of community plantation in the State of Gujarat	Village Soliya in District Bharuch	Village Lathedi in District Kachchh	Village(s) Vatra, Sarnal and Navagambara in District Khaira
Type of land according to ownership	Government owned revenue and forest wastelands	Government owned revenue wastelands	Government owned revenue wastelands
Status of land before taking plantation	Degraded forest land and degraded village common land (open access)	Degraded common lands without a blade of grass (open access)	Ravine and saline common lands (open access)
Area afforested (ha)	229 during 1985-92	460 during 1988-93.	115 during 1987-91
Target group	Whole village	People from seven villages	Members of co-op in each village
Formal/informal institution formed to manage plantation	Formal - Gram Vikas Mandal registered as Tree Growers' Co-operative	Informal - supported by GEDA officials	Formal - Tree Growers' Co-operative
Role of organization	Implementation as well as a Facilitator	Implementation	Implementation as well as a facilitator
Afforestation cost per ha (at 1996 prices)	Rs. 8,693 and Rs. 34,301 for degraded forest and revenue lands, respectively (plantation carried out in 1985-86)	Rs. 21,509 (2500 plants per ha; plantation carried out during 1988-93)	Rs. 13,523 (plantation carried out during 1987-92)

Financial analysis	Beneficiaries were only harvesting non-timber forest products (NTFP) from the afforested area at the time of data collection	Plantation has not started yielding benefits other than grass, as the plantation was only four years old at the time of collection	Over a period of 16 years (estimated for the period 1987-88 to 2002-3). Co-op NPV BICR FIRR Vat 1,77,177 6.48 61.95 Sar 1,16,346 5.64 51.60 Nav 1,00,266 5.79 62.77 (NPV is in Rs. / ha at 1996 price) (FIRR is in per cent)
Employment generation from plantation (per ha)	108 man days ¹ (18 man days per ha per annum for 6 years)	255 man days (51 man days per ha per annum for 5 years)	290 man days (58 man days per ha per annum for 5 years)

ha: hectare(s) ; NPV: Net Present Value; BCR: Benefit Cost Ratio ; FIRR: Financial Internal Rate of Return.

Vat : Vatra, Sar : Sarnal and Nav : Navagambara

Note: 1. This figure does not include value of voluntary services provided by villagers for protection of the plantation.

Some Problems / Issues in Community Forestry

The following points describe the various issues, which have emerged from the three case studies on CF.

Availability of Government and External Funds

It was found that AKRSP(I), NTGCF and GEDA were channelising the government funds earmarked for afforestation programmes in India through community participation at the grassroots level. These funds were made available from various development programmes and government agencies. It was also found that the AKRSP(I) and NTGCF were not facing any financial constraint in implementing their CFP. In fact they had accumulated sufficient funds for their future programmes.

However, GEDA was facing financial constraints in their plantation programmes on arid wastelands in Gujarat. This was mainly because the government had discontinued financial support for the plantations after meeting their target despite good performance by GEDA in rehabilitating a large extent of arid wastelands.

The case studies suggest that the government should facilitate the CFP of NGOs and other organizations by providing them the necessary financial resources as well as technical expertise. The target for such programmes undertaken should be increased depending on their performance. Moreover, the increased targets under such programmes at the same place requires less time and financial resources for organizing people as well for undertaking other plantation activities.

The case studies of NTGCF and AKRSP(I) revealed that the funds provided by external funding agencies, viz., Canadian International Development Agency (CIDA), Swedish International Development Authority (SIDA), Aga Khan Foundation (AKF) for their CFP had supplemented funds provided by the government agencies. The community plantations (CP) raised by GEDA were financed by the government agencies only. The NTGCF has utilized huge external funds from CIDA and SIDA. By March 1997, CIDA—since 1993 had extended financial assistance of Rs. 400 million and SIDA—since 1991 had extended financial assistance of Rs. 245 million to the NTGCF (NTGCF 1997). A very

rigorous and stringent procedure based on the performance is followed by the external funding agencies in allocating funds to such organizations for various developmental projects.

Higher Transaction Cost

The case studies revealed that the AKRSP(I) and NTGCF faced a number of problems in the acquisition of degraded village common lands for their plantation programmes. It resulted in loss of manpower and financial resources (higher transaction cost—these are the costs other than the production costs) which had very high opportunity cost. The resulting delays also dampen the interest of the people in such programmes. However, GEDA, being a semi-government agency, did not face any problem in acquisition of land.

The case study of AKRSP(I) also revealed that the lack of co-ordination and communication among the officials of various government agencies, on one hand, and between the government agencies and the NGOs, on the other hand was also one of the hurdles in the acquisition of government lands. This constraint also adversely affected the sustainability of CF in village Soliya in the later stages.

To facilitate the rehabilitation and management of degraded village common lands and forests through community participation, the GoI issued a circular in June 1990 asking the State Governments to ensure participation of village communities and NGOs in this effort. This order requires the State Governments to provide financial and technical assistance to NGOs for undertaking such programmes. However, despite this, NGOs and other organizations face bureaucratic hassles in acquiring such lands. What is needed is a forum representing officials from various government departments concerned, NGOs, and village communities to solve such problems.

Encroachment of Lands Leased

The case study of AKRSP(I) and NTGCF revealed that the village common lands officially leased by the government for CFP were mostly encroached by villagers. The process of evicting the encroachers is both time consuming and expensive. The officials of the government department concerned do not cooperate with the NGOs/co-ops in solving these problems. As the government officials feel that once the village common land is leased to NGO/co-op for afforestation, it becomes the responsibility of the latter to solve all the issues related to it. However, the NGOs/co-ops involved in implementing CF do not have any legal powers delegated to them to solve the problem of encroachment. So the result is inordinate delays in implementation. The officials of the concerned government departments should be encouraged and motivated to involve themselves at every stage of such programmes or whenever required. This will give a boost to the CFP as well as reduce the plantation costs.

Afforestation Costs and their Recovery

It was found that the cost of afforestation of degraded forest lands with adequate rootstocks from earlier vegetation, undertaken by the AKRSP(I) was Rs. 8,693 per ha (at 1996 prices). This was one-sixth of the cost of afforestation of degraded revenue wastelands without any rootstocks in the village Soliya. The average costs of afforestation (Table 1) of degraded village common lands without rootstocks undertaken by the GEDA and the co-ops were higher than those for the afforestation of degraded forests undertaken by AKRSP(I).

Proper protection of degraded forest lands with good rootstocks by the village communities with a restriction on cattle grazing is an economical mechanism for rehabilitating such lands. This means that about 35.9 million ha of degraded forest lands available in the country (GoI 1989) could be rehabilitated cost-effectively this way.

In case of GEDA, CP were financed by outright grants and therefore the beneficiaries did not have to repay to the funding agencies the money spent on plantation activities. In case of AKRSP (I), the members of the GVM are required to pay 75 per cent of the value of output (only timber and bamboo) from planted forest area to the forest department towards meeting the expenditure incurred by the latter on plantations. However, this condition was not applicable to the plantations raised on village revenue lands. In the case of co-ops, the beneficiaries are required to pay only 2 per cent of the total value of output from the CP to the NTGCF.

The financial feasibility analysis of the plantations undertaken by the co-ops revealed that the beneficiaries of these programmes could very well repay the money spent on their plantations. The government agencies as well as the NGOs should be encouraged to recover from the beneficiaries at least a small proportion of the expenditure incurred on their plantations. This will encourage the village community to take the plantation programme seriously. Moreover, the money recovered can be further invested into similar programmes elsewhere, thereby, increasing the overall investments in CF in the country.

People's Participation and Distribution of Benefits

One of the major pre-requisites for success of GEDA in afforestation of arid wastelands in Gujarat, was a high level of people's involvement in the plantation activities as well as in the protection of the plantations. Besides plantation programmes, GEDA also undertook educational and extension activities including visits to successful projects aimed at making the local people aware of the importance of plantations. Co-ops also followed the same strategy.

Non-cooperation among the village community in the implementation of the CF and inequitable distribution of benefits accruing from the plantation among the villagers had resulted in a number of conflicts in the village Soliya. This had resulted in a setback to the AKRSP(I)'s plantation. The non-cooperation among villagers was also an obstacle to maintaining the sustainability of the village level institution i.e., GVM. Co-ops are also facing the problems arising from lack of arrangements for equitable distribution among its members of benefits from CP (Singh and Balooni 1997). The low level of people's participation often results in higher transaction costs for the organizations thereby increasing the overall plantation cost.

To sum up, following the GEDA model, educational and extension activities should be an integral part of CFP being undertaken in the developing countries. This may increase the plantation cost in the initial years but would have a positive impact on such programmes in the long run. Besides, it also enhances the sustainability of the local level institutions responsible for the management of the plantations.

Prospects of Community Forestry

Despite the numerous constraints on them as briefly alluded in the preceding section of this paper, CFP are financially viable and seem to hold high promise in India as an instrument of providing gainful employment and income opportunities to villagers and improving the quality of environment.

The financial feasibility analysis of the CP of the co-ops on degraded revenue lands revealed that they were financially viable propositions (Table 1). The analysis suggests that the such programmes are worthy of financing by financial institutions as the financial internal rate of return (FIRR) from these plantations were quite high as compared to the prevailing interest rate on long-term loans (around 16% in India). It implies that it would be financially desirable to invest money in CFP so long as the rate of interest on the loans is equal to or less than the FIRR.

The study of co-ops also suggests that village panchayats or village level institutions should also be encouraged to undertake CP on village common lands by availing credit from financial institutions on co-operative basis, wherever feasible.

A perusal of Table 1 reveals that CF has resulted in generating gainful employment to people, particularly landless households of the participating villages. The case studies revealed that people of the adjoining villages have also benefited in the form of gainful employment. A substantial proportion of the financial outlays of various developmental programmes viz., Jawahar Rojgar Yojana, Drought Prone Area Programme currently underway in India is kept aside for plantations for generation of gainful employment.

The CP undertaken by co-ops were taken up on ravine lands. The afforestation of those lands generated gainful employment from the plantation activities and subsequently from harvesting the tree products. Moreover, 80 per cent of the expenditure incurred on plantations was paid as wages. Similarly, the plantations undertaken by GEDA and AKRSP(I) also provided employment to people in the participating village(s).

Concluding Remarks

The three case studies presented in this paper revealed that it is not the lack of availability of funds from the government and external funding agencies that hamper the progress of CFP in India. But there are many other constraints such as: problems in acquisition of village common lands for implementing CF; encroachment by villagers; lack of co-ordination among concerned; and lack of arrangements for equitable distribution of benefits among beneficiaries. These constraints dampen the interest of people in such programmes, slow down their pace, and also, adversely affect their financial viability. Peoples' participation is one of the major requirements as it results in cost effectiveness and sustainability of plantations. The government should continue to promote CFP through NGOs, NTGCF and other such organizations as the main strength of these organizations vis-à-vis the government lies in organizing villagers and enlisting their participation in plantation programmes. The financial analysis of the plantations raised through community participation revealed that they were financially viable and hence, bankable propositions. The study suggests that the need of the hour is to have a sound policy, which removes various obstacles in the way of CFP in India.

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