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SOCIAL FORESTRY NETWORK

APPROACHES TO SOCIAL FORESTRY IN WESTERN INDIA: SOME ASPECTS OF NGO EXPERIENCE

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Approaches to Social Forestry in Western India: Some aspects of NGO experience

This somewhat eclectic paper outlines some approaches to social forestry in India by briefly reviewing examples of projects supported by the Aga Khan Foundation (AKF) and concludes with the identification of major themes, based on the experience of the last three years. The paper is not a detailed review of the projects; but is intended to highlight activities relating to trees and the poor and to stimulate discussion of the issues raised.

A. INTRODUCTION

1. The Problem

Deforestation in India is taking place at an alarming rate. In the three states which are of primary interest to AKF (Rajasthan, Maharashtra, and Gujarat) the National Remote Sensing Agency has estimated that between 1972 and 1982 forest cover fell by 47%, 25% and 46% respectively. In addition, by 1982, only 17%, 47% and 26% of the land controlled by the Forest Department in these three states was actually afforested (CSE: 1985). This situation has serious implications for the poor (and particularly tribals) who have traditionally relied on forests for much of their livelihood.

Furthermore, increasing pressure from commercial interests and human and livestock populations has led to encroachment on and increasing degradation of the common lands from which the poor in these states have traditionally derived a significant proportion of their income and employment (Jodha: 1986).

2. The Context

Socio-economic: The vast majority of Indian villages are socially and economically heterogeneous with serious distortions in the ownership of resources. Traditional systems for ensuring that the poor have access to productive common property resources (CPRs), including wastelands, are breaking down and the economically powerful are gaining control. It is only where common lands are truly 'wastelands' that access by the poor is not in some way curtailed.

Technical: Technical solutions to the problems faced by villagers attempting to develop and invest in trees in arid and semi-arid areas of the country are commonly not available to those who could benefit from them. In addition to the weak links between research centres, the extension services and farmers, few NGOs have the expertise to adequately address the technical issues of species selection, husbandry, and soil and water conservation and marketing.

Legal: One aim of Indian forest laws is to separate trees from villagers and, in that, they have largely succeeded. Traditional rights on the use of forest products have been eroded and legal and bureaucratic obstacles are affecting attempts by the poor to gain access to forest land. Similar difficulties attend efforts to develop village wastelands for the benefit of the poor.

External Support: Until recently, reforestration/wasteland development activities have started with nursery raising and ended with planting. Little (if any) attention was given to maintenance and protection of the seedlings: nor to the involvement of villagers in conceptualisation and planning. Furthermore, benefits tended to flow disproportionately to the more powerful groups since the poor were not sufficiently organised to gain access or to maintain the benefits from such programmes. Despite the establishment of the National Wastelands Development Board (NWDB), there has been little change of government emphasis towards post planting care. Some technical innovations, including soil and water conservation, proposed by NGOs require additional sources of finance and access to technical and managerial support.

3. AKF Strategy

The main thrust of AKF's social forestry strategy in India is to work with local NGOs to:

- assist the poor and landless to gain access to common village property and Forest Department land on which they can grow appropriate trees and grasses for additional income generation.

- select cost-effective technical solutions appropriate to a partricular ecological zone and establish links with sources of technical innovation; to initiate relevant field-based experimentation.

- organise local communities to undertake development work effectively, efficiently and equitably and assist them to increase the effectiveness of government services and to ensure a more equitable access to those services.

B. EXAMPLES

The following four examples, based on the work of local NGOs in Rajasthan, Maharashtra and Gujarat, illustrate various approaches to addressing the crucial issues facing the rural poor through social forestry.

1. Rajasthan: South Aravallis Mountains

The South Aravallis mountain range is severely denuded and epitomises the general state of the western Rajasthan environment, the exploitation of which has led to four distinct trends (SPWD: 1985):

- More than 50% of the area is now classified as degraded wastelands: and the degradation is continuing.

- A critical shortage of fuelwood is accelerating the destruction of the remaining forest resources of the state and increasing the burden on women.

- The shortage of fodder is skewing the livestock population in favour of goats which can survive

in the arid and semi-arid environments although they are less productive than the cattle they are replacing.

- inappropriate arable farming is accelerating the destruction of the already impoverished soil.

Against this background, a consortium of five local NGOs has been working, since 1985, on a major social forestry programme aimed at arresting environmental degradation and supplementing the fodder, fuel and income sources of the local villagers. Technical and managerial support is provided by the Society for Promotion of Wastelands Development (SPWD), a Delhi-based national NGO.

The managerial approach adopted by the NGOs is to persuade the local villagers to develop their wastlands on a catchment basis. The formation of a village organisation to decide on the local management issues of the supply of labour, regulation of grazing, and the equitable distribution of benefits is a prerequisite for external support. The villagers response to this initiative has been very enthusiastic because the visible destruction of their livelihoods has been sudden and dramatic and they are in desperate need of income. Therefore the employment generated in digging pits for tree planting, building water conservation structures, establishing and operating nurseries, and protecting the planting sites is an important and effective incentive.

Most of the available wasteland is undulating community land which currently provides only limited grazing for goats. Water conservation is critical to the survival and growth of trees in the area and conservation works including gully plugs, small check dams and on-field water harvesting structures are an integral part of the NGOs' development model. The sites are physically protected from grazing by the construction of traditional dry stone walls along the catchment boundaries.

An interesting village initiative is the establishment of seed banks using tree seeds of local species collected by village women, children

and the poor who are paid by the village organisations. These species, supplemented by appropriate exotic trees, are raised in village-run nurseries before being distributed to the planting sites prior to the monsoon.

In view of the persistent fodder shortages and the need to generate resources rapidly, the NGOs are attempting to increase grass production from these common lands to help meet village fodder requirements and thus reduce the risk of livestock being allowed to graze/browse the newly planted catchments. Increased and assured availability of grasses effectively reduces the risk of damage to the plantations by providing an immediate benefit which can be equitably distributed through village organisations.

2. Maharashtra: The Western Ghats

The people of the western ghats of Maharashtra traditionally derive their livelihood from the forested foothills. The forest is severely depleted by increased human and livestock populations and by indiscriminate tree felling to meet an insatiable commercial demand for timber. In consequence the delicate ecological balance has been disrupted and rapid run-off is causing erosion and seasonal water shortages. The decreased availability of timber, fruits and other forest products is destroying the traditional local economy in an area with limited alternative income sources. Also, the most productive land is being taken over by Brahmins and other outsiders, thus further depleting the resource base of the indigenous tribals.

A small NGO, the Academy of Development Sciences (ADS), which recognises the paramount need to make land more productive if tribal societies are to survive, has been working since 1984 to restructure the local economy through soil and water conservation, social forestry, and the development of small scale processing industries for fruits and herbal plants. Herbal and medicinal plants are processed to provide medicines based on Ayurvedic principles and local practices. ADS runs a small clinic and is training local people as paramedical staff. The eventual aim of this part of the project is to create an entirely self-financing primary health care system.

ADS's approach favours establishing a wide spectrum of fuel, fruit, fodder and timber trees and herbal shrubs designed to provide a livelihood for the local tribal population. ADS has addressed the issue of motivating the people to conserve and develop village common lands by first concentrating on processing and marketing linkages for fruit produce, including jamun, jonla and mangoes that is already widely available from the forests. At present, forest fruits are largely consumed or sold locally but a substantial proportion of output remains unharvested because of a lack of local demand. A small unit has been established to process fruits into juices, pickles and jams. The processing of forest fruits is highly successful and has established a premium market in Pune and Bombay. The value added accrues to the villagers who are now motivated to grow fruit and fuelwood trees on common lands and private wastelands. Since there is a chronic fuelwood shortage in the area, creation of local fuelwood sources will help the communities preserve and develop existing natural forest to provide income and subsistence resources over the long term. The increase in the productivity of the existing CPRs has provided the necessary financial incentives as well as helped the tribals to understand the potential benefits from a conservation-orientated development strategy.

Immediate income generation through downstream linkages and the equitable distribution of benefits from an existing resource can motivate a community to protect existing resources and invest in longer term income generating assets.

3. Gujarat: Coastal Saline Wastelands

The project area, on the west coast of the Gulf of Khambhat is locally known as the 'Bhal', or forehead: an area where nothing will grow. Mean annual rainfall is less than 800mm and there is no underground sweet water. Although over 50% of the land area is officially termed non-cultivable waste, this figure rises to 90% in some villages. The area of wasteland is increasing because of periodic sea ingress and salinisation of the barren soil surface though capillary action and evaporation. In the absence of significant off-farm employment in the

area, large scale seasonal migration takes place. The power of local moneylenders and traders, belonging to the Darbar community, who exploit the weakness of the poorer villagers (Koli Patels) is firmly entrenched. However, the Bhal area has five major assets: an erratic monsoon; livestock; natural plantations of an oilseed tree, **Salvadora pesica**; abundant unutilised land; and a resourceful population which has resisted the apparently irresistible and not permanently migrated from the area.

In 1984, an NGO, Mahiti, started work in seven villages by establishing a dialogue with the villagers over a prolonged period to determine their needs; mobilise their labour resources; and organise their activities. Because of the orientation of the NGO and since most men migrate seasonally in search of work, women played an unusually prominent role in the initial dialogues and in establishing development activities.

The first approach of the NGO was to seek ways to increase income from existing resources in order to have an immediate impact.

The villagers have traditional rights to the seeds from large tracts of naturally-ocurring salt-tolerant **Salvadora** trees. These seeds which yield 15-20% of an oil used in the manufacture of soap and varnish are sold at very low rates to the local traders. Mahiti has encouraged the womens' organisations to collect the seeds more systematically to increase offtake and has put the villagers directly in contact with oil seed processors who may pay higher prices than the local traders. Seed harvesting takes place in April and May when there are few alternative employment opportunities in the area.

Once the immediate need for increased income was addressed, Mahiti undertook to work with the villagers to improve their water supply for domestic and livestock use. Monsoon run-off was traditionally stored in earthern tanks, the contents of which gradually became saline through groundwater ingress and evaporation. Mahiti has been able to:

- organise the villagers to provide labour
- obtain government finance to pay the labour for digging the tanks
- obtain donor support for lining the tanks with bricks
- obtain private sector support to provide plastic sheeting to line the tanks to eliminate seepage and the ingress of saline groundwater. The use of an anti-evaporant was tried and rejected because it polluted the water.

The resulting improved water supply for livestock and domestic use is meeting a major felt need and has provided local income. Under a social forestry programme, these water sources are being used to irrigate community tree nurseries, which were suffering from water shortages.

The womens' organisation distributes the income from the sales of **Salvadora** seeds equally among the members; keeping 5% for overheads to pay a watchman for the 250 ha. of **Salvadora** plantation to be established on public wasteland, alloted to the organisation by the district administration. The next stage is to plant more **Salvadora** on public and private wasteland and to establish a local crushing unit to extract the oil so that the value added from the oil and the cattle cake accrues to the villagers. Mahiti has established a link with the Village Industries Commission which will pay the villagers Rs14/kg of oil (a 200% increase on the present unprocessed price for seed alone). In addition the villagers will retain the oil cake for cattle feed.

Nurseries for **Prosopis juliflora** for planting on both private and public wasteland have been established by the womens' organisations. These hardy trees will provide both livestock fodder and fuel.

Mahiti's approach has shown that organising communities to increase the effective use of an existing resource can be used as a motivation for further developing that resource and utilising the benefits

equitably. There are other such indigenous natural resources in India as well as similar wastelands with low opportunity cost in the arid and semi-arid areas.

4. Gujarat: The Tribal Belt and Saurashtra

The aims of the Aga Khan Rural Support Programme in India, hereafter called AKRSP), a private non-profit Indian company which started operations in 1985 include:

- assisting local communities to manage their own resources.
- establishing village access to government land.
- obtaining government funds for social forestry using its own resources to finance technical and managerial innovation.

The organisation is currently working with village communities to develop various categories of waste and common lands in two distinct areas of Gujarat:

- The tribal belt in the south east of the state which is characterised by degraded forest and revenue wasteland with erratic rainfall.
- The drought prone arid and semi-arid areas of Saurashtra where increasing grazing pressure, from a predominantly livestock-based economy, is rapidly degrading the already seriously denuded wastelands.

AKRSP's approach to the development of these resources and the equitable distribution of benefits is summarised below for each agroecological zone.

The Tribal Belt in Eastern Gujarat

There is serious underemployment in the tribal areas and the majority of male villagers migrate seasonally to the plains in search of work. In this context wastelands development is initially perceived as a source of short-term employment. The villagers have little idea of the potential productivity of these public wastelands which are used primarily for livestock grazing.

AKRSP's initial approach is to establish a village organisation which acts as a forum in which the employment potential of the wastelands is discussed and ideas developed to maximise employment and encourage the equitable spread of potential employment benefits. Since the villages are socio-economically homogeneous, relative to communities elsewhere in Gujarat, and every family has an interest in employment there is a powerful internal dynamic to ensure that access is spread equitably. In consequence, at least one member of every family is able to work during at the peak periods for pit digging and tree planting. However, during the tree planting period, families with arable land need their labour resources for their own crop planting and so landless families and those with small land holdings who have excess labour capacity are able to take advantage of employment at the tree planting sites.

In an effort to build up the capital base of the poor and establish access to credit, AKRSP has introduced a personal savings scheme for those working on the wasteland development sites. AKRSP pays the minimum government wage which is considerably higher than the market wage for labour in the area and has been able to persuade the villagers to save Rs1/day from their daily wage (this represents about 20% of the difference between the government wage and the local wage rate). These savings have enabled some villagers to redeem assets mortgaged to local moneylenders while others have used their savings as collateral for small production loans. Not surprisingly villagers were at first reluctant to consent to the savings scheme and AKRSP had to exercise its considerable powers of persuasion to introduce the innovation which is now widely accepted.

The management of tree nurseries provides a further opportunity for the landless to benefit from wastelands development. For example, in the 1986 planting season, seven nurseries, each of 50,000 seedlings were established in one village on the basis of access to water, with little attention being paid to the socio-economic status of the nursery growers, because of the urgent need to generate sufficient seedlings for the first season. Two out of the seven nurseries were operated by landless farmers and their success (they earned a net Rs4,000) encouraged other landless members of the village organisation to press for their inclusion in the 1987 nursery programme. As a result, for the 1987 season, 20 landless families (out of a village of 110 families) are each operating nurseries of 15,000 seedling and will earn about Rs1,500. The presence of community water sources from which the landless could water their nurseries was a criticial factor in their involvement in this income-generating activity.

One problem with the establishment of tree nurseries for wasteland development is that they are necessarily short-term as the demand for seedlings will fall once the wastelands in the area have been afforested. In order to introduce the possibility of long-term viablility and to increase the immediate financial benefits from tree nursery management, the nursery operator is responsible for finding a market for 20% of the seedlings raised and is entitled to keep the proceeds. With increasing local forestry activity, there are possibilities to develop a considerable private demand for commercially important seedlings such as teak and the establishment of such a market would enable the nursery operator to use his or her newly acquired skills to generate income over the longer term.

The protection of the wastelands planted in 1986 has resulted in a considerable regeneration of grasses which are bieng harvested for fodder prior to the 1987 monsoon. The village organisations, by employing watchmen (paid by AKRSP until the trees mature), control access and have allocated particular days when grass can be harvested by hand by individual farmers.

Although villagers are rightly sceptical about the long term productivity of the wastelands, they are concerned with the equitable

distribution of potential benefits. At present, they view the trees as an asset to be eventually felled, with the cash realised from the sale of the timber distributed equally among the villagers and a proportion being retained by the village organisation to replant the wastelands. Their initial selection of species reflected this perception. The trees being planted on public wasteland are not yet seen as an asset to be managed over time to produce a stream of benefits. This seems to reflect the villagers' doubts about productivity as well as fears that they may not, in the end, be able to enjoy the benefits from the trees they have planted. Although AKRSP has taken the initial steps to establish the villagers' legal rights to the trees and develop equity-conscious village organisations, the programme has a continuing role to advise, discuss with and persuade the villagers to consider tree species and management systems to provide long term benefits.

Drought Prone Areas of Saurashtra

As the wastelands in this area are seriously degraded and yield little benefit, the government and many panchayats are willing to grant leases to village organisations for the planting of trees. Access to land is therefore not a serious constraint. However, perennial water shortage aggravated by three successive years of drought limits the choice of tree species for rainfed planting. Because of the harshness of the climate the gestation period before income accrues from the trees will be at least seven years. The people are traditionally dependent on livestock in these areas and recurrent fodder shortages are eroding the quality of their livestock and increasing seasonal migration in search of fodder. Concurrently, fuelwood is becoming scarcer and dung is being increasingly used for fuel. The primary felt need of the 90% of the population which owns livestock is to improve the supply of fodder which will have an immediate impact on productivity. The 10% of the population who do not own livestock has a primary requirement for short term income generation. In this context, AKRSP is emphasising fodder development, with trees, at this stage, being included as a complementary income-generating activity.

AKRSP has taken two approaches, depending on the availability of groundwater.

With Groundwater: Some village common lands have acces to groundwater and village dairy cooperative societies are keen to develop this resource to provide irrigated green fodder to decrease their dependence on purchased fodder and reduce the need for seasonal migration. In one village (of 120 households) where a 8 hectare irrigated fodder farm has been started, 24 families (20%) are landless and 30 families (25%) own less than two acres of land. 39 of these poor families (70%) own cattle and the dairy cooperative, of which they are members, sells them fodder at cost price whereas other members have to pay an 8% premium over cost price, and non-members pay a 25% premium. As a result of the improved fodder supply the milk yields from the cattle of these poor families have increased by 60% and the fat content by 20%. In addition migration has been reduced as, by the end of December 1986, 25 families who normally migrate had remained in the village, although some of these families had migrated by March 1987.

The increased milk production and the reduced migration has led to an increase in the total milk procurement by the village cooperative society and has thus increased the capital base and raised enthusiasm for further development of wastelands to augment the fodder supply. The limited groundwater acts as an incentive. Large-scale wasteland development can only be achieved on a rainfed basis. The villagers are using Prosopis juliflora for fodder and fuel and protecting and seeding the afforestered area to increase the supply of short duration grasses to meet immediate fodder needs. Furthermore, fodder trees are being introduced on the fodder farms and seedlings will be available to society members for planting on their own land.

This approach clearly has limitations as it requires a water source and the existence of a dairy cooperative, although both could be developed over time in many areas. The benefits can reach the poor immediately if they have cattle and are members of the society: a not uncommon situation in Saurashtra.

In another village in the area where an existing borehole with excess water is adjacent to village common land, the village organisation has protected an area from grazing and planted both Eucalyptus and Leucaena which have received occasional protective irrigation. The Eucalyptus has not done well but the Leucaena and grasses are well established and will provide an excellent fodder supplement.

Without Groundwater: When wastelands are severely degraded in arid and semi-arid areas, employment through tree planting is an important incentive to encourage people to consider wastelands as a potentially productive asset. Cash incentives for tree survival make social and physical (commonly trenches and/or cactus/sisal hedges in Saurashtra) protection a possibility. Productivity enhancement through grass reseeding can increase fodder supply and therefore reduce the need for extensive grazing lands. In principle, a gradual approach to protecting and developing common wastelands can lead to major productivity increases for livestock owners. The generation of employment opportunities for those without livestock increases the possibility of them purchasing cattle which can be stall fed on fodder produced from the newly developed wastelands.

In areas where water sources are not available, and the accessible revenue wastelands are degraded, AKRSP is using three models which are adapted to meet local requirements in consultation with village organisations.

- Use the land for tree planting and ensure adequate protection. This leads to a natural regeneration of grass (which can be supplemented by reseeding). Up to 55 metric tonnes of grass fodder have been obtained by rainfed natural regeneration from a ten hectare plot.

- In areas of particularly poor soil and low rainfall where rainfed tree survival is extremely low, protecting part of the common wastelands from grazing during and after the monsoon allows grass to regenerate to provide a fodder

supplement prior to the next monsoon. In addition, supplementary reseeding accelerates grass production.

- The productivity of the above two models can be enhanced by simple watershed management techniques involving gully plugging, small checkdams and on-field water harvesting structures. Such systems can be managed by village organisations supported by minor external interventions. Improved water retention allows increasingly productive fodder and fruit trees to be included in the model, along the lines of the systems developed at Sukhomajri in Haryana.

The inclusion of grass in the models meets an immediate need and gives a village organisation an asset through which the village wastelands can be managed and developed for the benefit of the community. Protection of the wastelands to provide fast growing grasses allows slow growing trees to mature. In addition, water conservation techniques, both on and off farm help reduce the gestation period for both trees and fodder.

The following summary from the records of a village organisation meeting defines their ideas of future directions:

> "The stored grass will be supplied to the cattle owners at the beginning of the next rainy season. This will restrain the cattle from going to the public grazing land where they eat a small amount of grass but through trampling prevent all further growth. Stored grass will enable the village organisation to protect other areas in future years until grazing stops of public grazing land and stall feeding becomes the accepted practice. With reseeding of improved grasses, fodder will improve in quality and quantity".

C. CONCLUSIONS AND OBSERVATIONS

Promoting the more efficient use of an existing resource and establishing downstream linkages can act as a communal incentive to promote wastelands development through social forestry and encourage the equitable distribution of benefits.

Improved use of existing CPRs can be an effective incentive to villagers to protect CPRS and invest in increasing productivity.

There is a need to broaden the scope of wasteland development to encompass income-generating tree products other than fuel and fodder, where the main emphasis currently lies. The development of processing and marketing linkages can establish the importance of seed and fruit products as substantial sources of income for the poor and landless in certain agro-ecological zones.

The introduction of equity considerations at the employment and the nursery stages of afforestation can establish a leverage for landless labourers and the poor. Evolving mechanisms for utilisation which strike a balance between the fulfillment of basic needs and the generation of short-term financial returns can allow a proportion of the benefits to accrue to the village as a whole. This approach develops skills at the local level which can be utilised during the tree gestation period.

The development of systems by which fodder production from wastelands can be increased both quantitively and qualitatively can encourage complementary tree planting in arid and semi-arid areas. The equitable distribution of fodder from wastelands can substantially increase the income of the poor and landless.

There are chronic fodder shortages on the arid and semi-arid areas where livestock rearing is the primary economic activity. Trees are slow-growing in these areas and grasses were the major product from the CPRs. In these circumstances, primary emphasis should be on the development of grasses to meet immediate fodder requirements. Trees are more easily introduced to complement fodder production from grasses.

In the arid and semi-arid areas, water conservation and harvesting structure have an immediate impact on the natural regeneration of grasses and increase the survival rate of trees. Such structures shorten the gestation period before income accrues to the community, increase employment and wage income at the outset, reduce the risk involved in plantation and conserve local water resources. It appears that planting trees in isolation is an unproductive investment in these areas.

The strategy of giving usufruct rights to the poor on public grazing lands in arid and semi-arid areas in the absence of other initiatives can be counterproductive, for two reasons. First, there is a considerable risk that the trees will not survive in these conditions and therefore there will be no long-term benefits to the poor. Second, planting trees alone will destroy a community grazing resource in areas of chronic fodder shortages. Community management for grass as the primary product with the establishment of trees as a secondary consideration may be a more effective approach.

Short-term employment generation is an important component of the development models.

The area of wastelands available near a village is an important factor in determining the effectiveness of a development programme. Large contiguous areas reduce the problems of supervision and management and the absolute benefits from employment and regenerated resources accruing to the villagers are sufficient to maintain their interest and allow equity considerations to be introduced.

The NGOs are acting as facilitators and motivators: putting the poor in touch with resources which, up to now, they have been denied. This is a long term process and, if they are to have lasting impact NGOs need to work in an area for a considerable period. In order to do this they require access to both external financial assistance, (be it from the government or other donors) and sources of technical innovation.

NGO initiatives are generally at a very small scale, involving a few villages or, at best, a few talukas. NGOs commonly have a local

perspective and rarely have the inclination and certainly not the resources to countenance major expansions of their activities. While these initiatives are important incremental learning models, major social forestry developments are unlikely to take place without the support of the Forest Department with its massive management, land and financial resources. NGOs are developing links with government agencies such as NWDB but, few effective links between NGOs and the Forest Department have yet been forged.

Although details of costs and benefits are hard to come by NGO wasteland development work costs between Rs1,000 and Rs2,500 per hectare. In consequence, massive resources would be required at the state and national level if such activities were to be scaled up.

It is often difficult to gain access to wastelands. AKRSP is working with villages which are adjacent to substantial areas of unencumbered wasteland. Approaches to the state governments for access to revenue wasteland are extremely time consuming and, although access has been granted to some land after delays of up to 12 months, many applications by AKRSP are still pending. Access to denuded forest land is still more problematic and time consuming. Applications are channelled through Delhi and AKRSP has not yet had any applications approved. In the case of the more productive wasteland, widespread encroachment is effectively preventing any community development of the resource and, certainly in Gujarat, attempts to remove encroachers seem to be officially discouraged.

The key issue being addressed by these NGOs is the isolation of the poor. The villagers, and particularly the poor, are isolated from land; from sources of finance; from sources of technical information; from markets; and from management support. This location is perpetuated by an insensitive government bureaucracy and exploitation by richer members of their communities.

Progress to date is fragile. Experience is short term and interventions are disrupting well-entrenched social structures. The more severe the exploitation, the more fragile the innovation. In the Mahiti example, traders and moneylenders are losing their financial

stranglehold on the villagers and are undoubtedly awaiting an opportunity to re-establish their power. The long term problems of ensuring equity remain unresolved. Short-term gains for the poor are clearly possible, particularly when there are underutilised resources (such as land and labour). However, unless the total pie is increased, redistributing the slices risks social upheaval.

Although newly established village organisations are increasing the power of poorer villagers, such organisations are still at risk from vested village interests. Equity cannot be forced and conflicts are bound to arise. NGOs can only attempt to establish sensitive and democratic village institutions and advise and encourage their development. However, in many cases, the NGO, by taking a target population approach (eg the poor) alienates the population affected by their intervention. In these situations the NGO cannot act as an impartial arbitrator of village conflicts. Who can? In an ideal world, the District Administration is well placed to fulfil this role; but, in practice, a consortium of local NGOs and/or umbrella village groupings may be better placed to meet an evident need. It takes considerable time to sensitise villagers; to win the confidence of the poor; to elicit their ideas; convince the richer villagers that, by working with the poor, they themselves can benefit from social forestry programmes; and to establish an organisation. Evidently there must be benefits to all groups for this to work. Such accommodation may not be possible in cases like Mahiti where the oppressors are losing from the programme; but in the AKRSP and Rajasthan examples, whole villages can benefit from commons improvement.

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