



SOCIAL FORESTRY NETWORK



**NORTHERN VIETNAM:
FARMERS, COLLECTIVES AND THE REHABILITATION
OF RECENTLY REALLOCATED HILL LAND**

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SETTING—CHANGES IN LAND USE POLICY IN VIETNAM

Between the 1950s and 1980s the Vietnamese government followed a Marxist-Leninist model of social and economic development. Under this system government intervention in agricultural and forest production was made through organisations known as 'state enterprises' and 'cooperatives' operating within the rural communes¹, within which the collective organisation of work and distribution of most land resources was given precedence. Since the early 1980s, however, the government has made a series of policy moves which are greatly altering the relationship between farmers and these formal collective organisations.

Policy now focusses more on the needs and economic potential of the individual land user and certain free market activities receive political backing. It is intended that the cooperatives should have less direct control

¹. Definition of the terms 'enterprise', 'cooperative' and 'commune' is here required. Enterprises are state run organisations concerned with production, marketing, material supply or a combination of these. In the agricultural sector they commonly take the form of estates, control over which is closely linked with District or Provincial administrations. Communes are geo-political units, containing a number of settlements, more-or-less conforming to historically well-established realms of control based on strong local kinship ties. Within a commune there may be between 2 and 4 cooperatives. Through the cooperatives the state sought to build on collectives relations of production which long existed in the traditional communes. However, as argued by Fforde (1990) it is not possible to treat them as well-defined units with common interests. Furthermore, the traditional communes always had important corporate functions with regard to the regulation of land use, elements of which persist today; in the present situation the cooperative can be regarded as a 'formal' subsystem operating within a much broader set of 'non-formal' relations aimed at both private and communal land management.

over the use of land resources in future, taking on instead an administrative and service support function for which they are required to act as self-sustaining economic units. These changes have come about through recognition that the lack of incentives provided to farmers under collective systems of work, combined with inappropriate capital-intensive techniques employed by the cooperatives have continued to suppress agricultural production in recent decades (Bloch & Osterberg 1989).

This reform process includes changes in the official system of land tenure, as embodied in a new Land Law of 1988. Under the new system land is made available to farming families and organisations on the basis of 'allocations' for periods of up to 15 years for agricultural land and from 30-60 years for forest land. As indicated by Sargent (1991), the significance of this is not that it represents a move towards privatisation of land (as indeed the concept of 'private land' was officially abolished in an earlier decree of 1982) but that under the system of allocations individual land users are treated identically and equal to cooperatives and state enterprises by law. For planning purposes land is officially classified into five categories: agricultural land (covering both paddy and certain hill land), forest land (most hill land), residential land, specialized land and unused land. The classification may refer to intended land use rather than actual use.

The role of the Provincial and District administrations in this process is to oversee the demarcation and certification of the newly allocated land, to ensure that the policy is implemented in a way that results in secure access rights for the land users involved, alongside providing technical advice and services that enable allocated land to be utilized. Equity is a major concern with regard to paddy land (through the allocation of a minimum family holding) whereas forest and hill land is currently allocated solely on the basis of a household's capacity to develop it. As the state is also reducing its monopoly control over the marketing of forest products, individuals, cooperatives and state enterprises alike are having to adjust to a higher risk market environment.

In the region of the Red River Delta in Northern Vietnam large areas of denuded hill and forest land are being relinquished by the state for the purpose of reforestation by farmers and cooperatives. In this situation, the state forest service is inevitably having to develop new extension capabilities and a variety of social forestry programmes have been started. This paper examines the problems and potentials of tree growing on this

recently reallocated land, focusing on the experience gained by a social forestry programme undertaken by the joint Vietnam/Sweden Plantation and Soil Conservation Project in the Provinces of Vinh Phu, Hoang Lien Son and Ha Tuyen since 1986.

ORIGINS OF THE SOCIAL FORESTRY PROGRAMME

Social Forestry in the region had its origins in the evolution of a forest development programme which began in the late 1970s with the construction of a pulp and paper mill. The mill initially utilized standing stocks of raw material including bamboo from the homegardens and plantations of *Styrax tonkinensis* and *Mangletia glauca* harvested from the mountainous areas fringing the delta. Subsequently, as from the early 1980s, the enterprise responsible for procuring material for the mill began establishing new plantations in the more accessible lowlands and along transport arteries as a means to ensuring future supplies closer to the mill. This geographical shift into areas characterized by a lower proportion of hill land to paddy land, higher population densities and more degraded hills made large scale planting operations more rational from the point of view of mill access. However, it was more problematic with respect to the availability of large tracts of spare land for tree planting and the latent demand for wood within rural communities.

The social forestry programme was started in 1986 for several reasons: to increase the supply of wood products on the market thereby improving the economy of rural households involved in tree growing; to supply the pulp and paper mill; but the most important reason given at the time was to reduce pressure being put on the newly established 'industrial plantations' by local people through the illicit cutting of trees and collection of leaf litter for fuel (Folkesson & Gayfer, 1989).

The objective was to provide an ample supply of tree seedlings over and above those required for the industrial programme. Those people who were in need of tree products would then be able to grow their own trees rather than plundering the industrial plantations. It was recognized that the simultaneous strengthening of state policy for the allocation of land potentially gave individual households access to land on which to grow these trees. Nursery production has been subsidized so that tree seedlings reach the farmers free-of-charge or at minimal cost. The number of

seedlings produced annually under social forestry has grown rapidly from 1 million seedlings in 1987 to 16 million in 1991.

These stated objectives indicate a range of possible client groups. In practice, however, the programme has concentrated on promoting a specific 'planting technology' (monocropping with timber tree species — *Eucalyptus spp*, *Acacia spp*) on specific 'planting sites' ('bare hills' in the lowlands at the edge of the delta) rather than on identifying particular groups of farmers to work with. This approach stems from the close association of the social forestry activities with the large-scale industrial programme and the rigidity of planting guidelines set at central, provincial and project level.

This paper begins by examining the impact of the programme on the use and economy of the hills. Following this, a number of wider questions are raised to ascertain the appropriateness of the current approach to social forestry against the backdrop of the wider, longer term implications of land reform.

THE PROBLEM OF THE BARE HILLS

Physically and ethnically there is considerable variation over the three provinces covered by the forest development programme. Moving from areas of lowland at the edge of the delta dominated by wet rice cultivation (2-3 crops/year) and the Kinh people, through a midland zone which has been subject to in-migration of people from the delta in search of new land to farm for many years, to extensive mountainous areas rising up to 3,000m where 'minority' groups such as the H'mong, Tay and Nung practice fallowing, or shifting cultivation (Table 1).

This paper looks at the lowland and midland zones as this is where the social forestry programme has been most active. The land use system and agricultural landscape of this area can be divided into three: • wet rice land; • a settlement zone including the homegardens which borders the paddy land; • above which rise low hills which were formerly forested but are now in many places devoid of tree cover. It is in many cases misleading to call these hills 'bare' because even though they may now be denuded of vegetation and in some localities suffering from a continuing loss of soil material and fertility, they may still be of great value to some households.

Table 1 Land Use Zones in the Forest Development Area of Northern Vietnam (Ha Tuyen, Hoang Lien Son, Vinh Phu Provinces)

Edge of delta	High Pop. density	Extensive paddy rice areas (2 crop / year and high yields)	Hills important for staples eg cassava and as a grazing and fuel scavenging resource
Middle zone	Medium pop. density	Restricted paddy rice areas (often 1 crop only) and average yields	Sufficient conditions to allow farmers to invest and experiment in tree/crop and livestock production for domestic use and marketing
Mountainous zone	Low-medium density	Paddy areas very small Low yields	Hills critical for staples eg hill 'dryland' rice, terraced wet rice, maize and cassava

It is in the lowlands closest to the delta that they are most degraded. This results from the intensity of use under high population pressure in excess of 400 persons/km² in places, the continual drain of nutrients down on to rice land and the presence of exposed lateritic hardpan on some hills. Here, the current planting model of monocropping hardy tree species is perhaps the most rewarding first step towards rehabilitation; although as yet little attention has been given to the problem of how these sites should be further developed in a way that meets short term production needs of farmers alongside the state's wider goal of improving the environment. Simply planting up all of these low hills will meet neither requirement as trees alone will not conserve or significantly improve these sites.

Further from the delta the hills increase in area proportional to paddy land, and in steepness of slope. There remains a workable soil in many places together with areas of fallow regrowth of grasses and shrubs associated with continuing crop cultivation. Lower population density (in the order of 90 persons/km²) means that more households have access to these hills and

there is wider scope for different techniques and combinations of tree, crop and livestock production.

The critical factor affecting current household demand for or actual use of hill land in any one locality is the relative importance and availability of hill land for the production of stable food crops vis-à-vis the area and quality of paddy rice land/capita. Although other factors such as access to markets and grazing resources are important, it is not surprising that a recent study (Lindstrom, 1991) found that at a time of uncertainty over and underdevelopment of local markets decision-making by the majority of households follows a low risk, food subsistence strategy.

There are, of course, important local variations between districts, between communes within a district and even between settlements within a commune itself. At the household level the diversity continues in respect to length of residence in an area. There are notable differences in the desired use of the hills between those households long established in an area, maintaining large productive homegardens together with large family paddy holdings, compared with households new to an area who have small immature gardens and limited access to paddy land.

DEGRADATION OF THE HILLS

In Annex 1 an account of social and political change in Vietnam and its implications for use of forest land is given. Comparable accounts of forest depletion from the hills are told by farmers throughout the region. Following the collectivisation of land resources in the 1950s, state organisations, in particular the forest enterprises, were given the mandate to intensify logging of valuable timber from the hills. Prices set by the state for the timber covered little more than logging and transportation costs and recurrent expenditure. Little direct re-investment in reforestation took place. This established a pattern of extraction to meet external needs, after which many communes seemingly lost their traditional collective mechanisms for protecting and managing the forests. The absence of any effective property rights to hill land led to a situation where land became liable to short-term exploitative practices and random clearance of the remaining trees for fuel, construction purposes and agricultural cultivation then occurred (Fforde 1989). This process was aided by the fact that many enterprises had control over areas of land that were too large for them to manage effectively.

Within some communes attempts at reforestation were carried out as part of national tree planting movements and later district directives. Often the first rotation (usually *Eucalyptus exserta*) proved successful producing building material for a school, clinic or office within the cooperative. After harvesting, the site was generally left and households removed all stumps and even roots for fuelwood.

FACTORS GUIDING USE OF THE HILLS IN THE PAST

Examination of past patterns of use of these hills reveals five important characteristics which may be used to guide future management:

- First, from the point of view of local people, not all hill land designated as such should be 'forest land'. There are in effect different types of hill land including land within the village which has long been under the control of the traditional commune or cooperative; land outside the village; hill land formerly belonging to the state now being allocated with trees on it; land allocated without trees.
- Second, whilst production units such as enterprises and cooperatives sought to use hill land for large scale monoculture including forest plantations and tea estates, the value of such hills to households is that they provide alternative and multiple uses including livestock, crop and tree products. For families within a society traditionally based on wet rice cultivation, hill land was principally seen as a supply zone providing households with fuelwood and grazing, cassava for pig feed and a source of green manure or composted material for the rice fields.
- Third, State attitudes to forest land were (and still are) based on the principle that this is a resource that should be developed and used in an 'economic way' (implying monoculture) rather than remaining 'bare' and being used in an unplanned, 'uneconomic way' (multiple use) by small scale subsistence oriented farmers. Household access rights to hill land outside of the homegarden were commonly on a short term, periodic basis as a share in contract production with the cooperative for

cassava or tea cultivation, or as a 'loan' of land for one cropping season.

- Fourth, it is likely that hill land has always been a specially important resource to poorer households and that the absence of effective regulations governing their use provided the flexibility in the system that catered for this. That is, as a source of grazing land for those households who did not have adequate alternative supplies (for example, residues from rice land), and as a source of food security through the collection of wild produce before deforestation and temporary crop cultivation since.
- Fifth, with a traditional pattern of nuclear settlements, use of hill land has been influenced by the distance from settlement with close areas being used more intensively. Protection has been and is still a major discouragement for the use of hill land far from the village. A trend encouraged in the early 1980's, now becoming increasingly popular through the land reforms, is for families or part of families to move out from the main residential area to build new or second homes on hill land.

These points suggest that any solutions to the problem of the bare hills cannot be purely technical in nature. Of equal importance is that land allocation is taking place through a coherent process of land use planning which incorporates needs other than tree growing. The magnitude of the land tenure changes taking place today lies in the fact that past systems of predominantly informal short-term access rights for a larger number of households are being replaced by longer term formal rights of tenure on an individual basis for fewer households.

Past systems of multiple use are also being replaced, at least in those places where tree planting is taking place, by one of single use under mono-cropping of trees. In this respect, it is important to note that the official land classification, as embodied in the new Land Law, has no way of clearly expressing the existence of multiple use hill land (Fforde, 1989). Reading of the Land Law suggests that agroforestry practices are permissible both on forest and agricultural land yet guidelines from the respective authorities on the way in which such land can be developed appears to prevent, at least at the outset, multiple use approaches by farmers.

SOCIAL FORESTRY AND LAND ALLOCATION— OPERATIONAL AND CONTRACTUAL LINKAGES

When the allocation process started in the early 1980s many households and cooperatives were at first reluctant to take over the hill land being relinquished by the state and the forest enterprises. They were suddenly given access to large areas but, in the absence of clear guidelines on how to distribute and manage it, and with little technical or financial assistance, the initial result of allocation was in many cases accelerated forest degradation (Bloch & Osterberg, 1989). Investment in the land was not encouraged by the fact that no guarantees were given about the period of allocation. Some successes were recorded with the issuing of Forest Owners Certificates to a small number of households, although these generally dealt with areas referred to as 'forest gardens' consisting of planted or often secondary forest close to a residence.

Recognizing these problems, the state strengthened the system of allocation in the Land Law of 1988. This created a framework for longer term rights of usage which can be more specifically targeted on individual land users. It was in this context that the social forestry planting programme began to provide the materials and technical support to enable farmers to actually establish trees on newly allocated land alongside continuing support for cooperative planting.

So there are, in fact, several distinct processes going on here. The first is the allocation of forest and hill land to individual households through direct entitlement, or to the cooperatives and enterprises who in turn make production contracts with farmers. To give some idea of the rate of distribution, in Vinh Phu province only one third (62,000 ha) of the land considered suitable for forestry (179,000 ha) has been allocated so far (Sargent, 1991). Land allocation is taking place in many areas independent of the social forestry programme.

The other decision-making process involved is that whereby farmers enter the social forestry programme itself. That is, by making use of the incentives (seedlings) provided to establish trees on newly allocated land. Involvement in social forestry is in many cases subject to rules concerning the planting prescription, planting date, stocking and the length of time trees should be maintained on the plot, harvesting regulations, the

distribution of revenues and forest tax payment. In theory, then, farmers are having to operate according to two separate, but in many ways interchangeable agreements: the first relating to the basic allocation of land, the second relating to the particular conditions set for the establishment and management of a social forestry plot.

What results from this is that the present situation with regard to the variety of users of forest and hill land and their tenure status (a summary of which is given in Table 2) is a complex yet fluid one which continues to be modified by the land allocation programme.

DIRECT ENTITLEMENT OF LAND

Forest and hill land may be allocated directly to farm households from the state. This results in the signing of a formal title deed to the land known as a Land Tenure Certificate (LTC). Responsibility for assigning land in this way rests with the People's Committees — the political wing of government as opposed to the executive wing. In theory, the involvement of the cooperative management in this extends only to providing administrative support for processing the certification.

The allocation of small parcels of land to a large number of households following the procedure of the General Department of Land Management is proving to be a lengthy procedure with high administrative costs. It also places a heavy work load on Agriculture and Forest Department staff. In consequence, direct entitlement of this sort is taking place only very slowly (Que & Gayfer, 1991). Where they do occur, direct allocations of forest land tend to ratify land held under forest owners certificates with very little new allocation occurring. Hill land classified as agricultural land is generally being kept under cooperative management who in turn are trying to negotiate user contracts with households. Progress on individual entitlements is mostly confined to paddy land.

Significant areas of hill land were allocated to households on an informal basis before certification really got under way and even since that process has been running. Provided that the survey measurement of these plots proves accurate, ownership of these plots can, in theory, be rubber-stamped retrospectively as titled land. However, a recent study suggests that farmers may not always welcome issuing of a certificate as this may make them liable for tax payments on the land or its produce which they can escape by remaining outside the formal system (Que & Gayfer, 1991).

Table 2 Users of Forest/Hill Land and their Tenure Status

Users	Tenure	Use
Farm Households	LTC issued or process started	Forest garden Bare hill for planting
	Forest Owners Certificate (Convert to LTC)	Forest garden
	Traditional claim	Forest garden
	Joint venture with Cooperative (various terms)	New planting on bare hill
	'Borrowed' land (from Cooperative)	Short term food crops
	'Contract' land (from Cooperative)	Agricultural use in annually renewed production contracts
	'Poached' land (from state enterprise)	Short term food crops
	Common access within commune or cooperative area	Grazing, fuel and litter collection, other forest products
Cooperative	LTC issued or process started Recognition of boundaries between cooperatives and enterprises (in some cases disputed)	Forest plantations using own or state investment — may involve sub-allocation to households
Commune	Delegation of management duty from provincial and district authorities	Selected natural forest areas
State enterprise & enterprise workers	LTC issued or process started	Forestry: planting and harvesting — may involve sub-allocation to enterprise workers or groups of workers
Other units eg Prisons, Army	LTC issued or process started	Forestry, agriculture or military activities.

INDIRECT ALLOCATION THROUGH CONTRACT WITH THE COOPERATIVES AND STATE ENTERPRISES

The alternative is for land to be certified under the name of the cooperative who in turn make contracts with farmers for tree growing. For forest land these contracts tend to be for a period of between 30 and 50 years. Cooperatives are handling these contracts in different ways, but in most cases responsibility for management operations from planting to harvesting rests with the farm household involved.

In some communes the land is planted with trees through collective labour before the individual contracts are drawn up; this appears to lead to fuller coverage of a given area of hill land with trees. In other places land is contracted out first, in which case the household is itself responsible for planting; this approach results in a more piece-meal pattern of planting. The exact terms of the contracts made between cooperatives and individuals thus vary greatly according to the status of the land on allocation (Folkesson & Gayfer, 1989):

- The farmer has 50% of the harvest and the cooperative 50%; the forest tax will be paid from the cooperative party; planting, tending and protection done by the farmer.
- Farmers have 25% of the harvest for protection; planting and tending done by the cooperative through collective labour.
- Farmers have 70% of the harvest and the cooperative 30%; the tax will be paid by the cooperative; planting and tending done by the farmer.
- Farmers have 60kg of rice per protected hectare and 20% of the harvest.
- Farmers have 80% of harvest in return for tending and protection; seedling supply and planting by the cooperative.

According to current state policy, cooperatives are meant to have less direct control over the distribution and use of land in the future. Even so,

a majority of the resources currently provided by the social forestry programme are reaching farmers through this contract system with cooperatives. Where there is such a support programme, cooperatives are concerned to play a leading role in land allocation and subsequent land use. Where there is none the cooperatives are more inclined to let families get on with it themselves. In this way the cooperatives must themselves be regarded as a major 'client' of the programme; a situation in which they can be said to have both a positive and negative influence. Cooperatives are at an advantage for three reasons:

- They can take over larger areas of land and implement reforestation activities quickly.
- They are able to merge the incentives provided by the social forestry programme with the requirements set for land allocation in one single contract agreement with farmers.
- And lastly, because of this, they still represent an easier means of investment for Provincial authorities in order to achieve ambitious tree planting targets.

On the other hand, the possible longer term implications of this for the legal status of the land, the degree of security a household has over it and its value to that family, also need to be recognized:

- First, and most important, is the fact that forest land allocated through contract with a cooperative cannot be included in a household's land tenure certificate. This is the critical difference which distinguishes the two currently operating systems of allocation.
- In effect, this means that the trees have two sets of owners or managers, whereas the current Land Law protects only the rights of the certified user. Individual farmers who are under contract are thus vulnerable to arbitrary changes in the direction of cooperative policy (Bloch and Osterberg, 1989).
- The cooperatives are also under increasing pressure to operate as self-sustaining economic units. It is obviously in their interest to establish contracts with the most prosperous farmers who are likely to fulfil their part of the agreement. Thus a joint venture with a few

well off farmers is a better way to nurture a cooperative's investment in forestry than taking the risk of dealing with a large number of poor families for any one piece of hill land.

- Whilst a cooperative tends to favour a uniform plantation producing a marketable product (eg sawn timber, pulpwood) at the end of a 10-15 year rotation most families would look for a more flexible approach. Yet where households are sub-contracted by cooperatives it is normally the preferences of the latter that decide the planting model. There is therefore a danger of inadvertently encouraging cooperatives to tie up large areas of land in a form of monoculture that could be sub-optimum in terms of the variety, volume and frequency of products that a family requires from such a piece of hill land (Gayfer, 1989).

Households involved in forestry work in association with forest enterprises are covered similarly in the Land Law. As enterprise workers they are not able to receive land tenure certificates. The enterprise itself, with the director as signatory, is formally allocated the land of the enterprise from which they may then allocate portions to enterprise families or groups of families in production contracts. To date these families have not been actively involved in the social forestry programme; however, with growing restrictions on direct state investment in commercial plantations a growing number of requests for support under the social forestry programme is to be expected.

FARM HOUSEHOLDS AND SOCIAL FORESTRY

At this point it should be noted that reliable data is not available on the number of farm households actually involved in social forestry, or on the number or size of the plots they are establishing with trees. The only data which is available is on the total number of seedlings produced by the tree nurseries which can be roughly converted into hectares of land planted; the value of this, however, is limited because it does not permit us to form an accurate picture of the impact of the programme with regard to the dynamic changes taking place in land tenure. As noted by Fforde (1990), the considerable difficulties associated with field work in Vietnam, which also result in inadequate data, confines us to a theoretical analysis of many issues.

Nonetheless, what is evident is that it is only a minority of farm households that are receiving allocations of land for tree planting in any one commune: between 5 and 15 households out of an approximate number of between 300-500. The official criteria for the allocation of forest/hill land includes **proximity of residence** and the **labour power within the household unit**. Efforts are made in some communes to allocate land to those households situated adjacent or close to the hills, to which they have had preferential access rights in the past. However, this is not always possible — there are different types of forest land, more or less distant from the village and currently under different uses. In order to plant up distant and less clearly owned areas a household must have the ability to shift its resources to claim a plot; so of these two criteria, labour emerges as the most important. The availability of labour is critical in two ways:

- First, it theoretically determines both the number and size of plots a household can take over.
- And second, even after the initial allocation of land, the ability of a household to actually establish a plot usually entails mobilizing extra labour to do the work of preparing the site, planting the trees, providing protection and so on.

Prohibitions formerly existed on hiring labour on a wage basis. It remains to be seen to what extent it will emerge as important in farm level forestry, but it is likely to increase as is the case in other sectors of the rural economy. At present, most of the extra labour required is still brought in on the relatively informal, non-monetized basis of labour exchange within and between households (Huan & Gayfer, 1991). This represents a legitimisation of these informal patterns of transaction which have been maintained throughout the era in which formal collective relations of production were officially regarded as the norm.

The households currently involved in social forestry are also those prepared to take the risk of doing so. This is partly an economic risk. There is evidently widespread uncertainty on their part as to the exact terms of the contracts they are now establishing with the cooperatives in those cases of indirect allocations. This is over matters such as the future markets for timber products, who will handle marketing (the individual or the cooperative), the length of contract over the land, and the levels of forest tax which will be applied to the harvests. Even where direct allocations exist farmers are vulnerable to uncertain wood markets and marketing

channels. There are also concerns that establishment of family timber/pulpwood plantations (promoted by the current social forestry extension programme) may not represent the best long term investment for the family versus other alternative uses of hill land such as tea.

But what is perhaps more important is that it is also a social risk these farmers are taking. They are people who are confident in their ability to establish new terms of production with other cooperative cadre, the Agriculture and Forest Department and the People's Committees. They are individuals who generally have the power to influence the course of decision-making at commune level at a time when the politics of land use are in great flux.

It seems clear that whatever the risks involved, gaining access to land through social forestry may in itself be a sufficient reward for any household. Farmers now recognise the economic value of hill land particularly at a time when pressure on limited rice land is increasing through population pressure and the production problems of soil erosion from hill land as associated with water control, deposition and change in water quality. Tree planting represents one of the easiest options (contrasted with the effort required to dig tea ditches) by which to 'claim' a site both in terms of consolidating an allocation through cultivation in Year 1 or as a means to register an interest in the land which may then be ratified at a later date by a formal allocation.

In the following section two examples are given of this diversity of ways in which land allocation policy for tree planting is interpreted. These are followed by two further examples from the Forest, Trees and People (FTP) Project where support for tree planting was channelled through the cooperative as a part of the development of hill land.

FARMER INITIATIVES ON THE NEWLY ALLOCATED LAND

One of the most striking features is that in response to land allocation many farmers have long term objectives to diversify production on the social forestry plots, thus gradually turning them into mixed species 'forest-gardens'. This point is well illustrated by the following examples.

Example 1 — Diversification of the Social Forestry Plots: views of a farmer in Luong Vuong Commune, Ha Tuyen Province

This farmer is a retired school teacher who clearly has the necessary time, learning, interest and economic resources to invest in social forestry. In 1988 when news reached him about the forest land allocation policy he made an application for land to plant trees. In the first year after receiving land he went to the AFD nursery to get 4000 seedlings, but very few of these survived due to late planting and the poor quality of the stock.

In 1990 he took on the responsibility of managing a tree nursery producing 100,000 seedlings under direct contract with the Yen Son AFD. He has set this up in his own home-garden. AFD provides the consumables and organises the distribution of seedlings according to the District plan for social forestry. In return the farmer receives 20 dong per seedling produced, obtains seedlings for his own social forestry plantings free-of-charge, and uses cast-off consumables to produce extra tree seedlings for cash sale.

Only ten households in the commune have been allocated forest land so far. This farmer has two separate plots which he has planted with the timber tree species provided through the social forestry programme. At present he does not know where the market will be for the timber, or even whose responsibility it will be to develop the market linkages. The first stipulation has been to reforest the bare hills, for which he is under contract to keep the trees on the plot.

But this farmer has much more ambitious and long term plans for the plots. These included planting other tree species, particularly fruit trees, establishing a living-fence of rattan around the plot, as well as bringing in colonies of honey-bees to make use of the Eucalyptus nectar. The farmer has already begun to diversify the species on the plot by direct sowing the Candle-nut tree ('Trau'—*Aleurites montana*).

Example 2 — Promoting Natural Regeneration of Indigenous Trees: a plot managed by Mr Ngung, Doan Hung District

Mr Ngung settled in this northern part of Vinh Phu Province in the early 1960s, having moved from the lower delta area. At that time the extensive areas of hill land in the commune (probably greater than 50% of the land

area) were covered with semi-natural forest. The pattern of forest depletion since then has been similar to that in other communes. From 1980 farmers cultivated cassava on the hill land but after the mid-1980s the productivity of the soil began to decline and cultivation has since been less intensive.

Mr Ngung has control over a number of agricultural plots scattered in different parts of the commune, including rice-paddy, a home-garden, and areas of hill land on which he grows cassava, beans and groundnuts. He manages 2 ha of Eucalyptus plantation on hill land established under the social forestry programme. In addition, he has an area of hill land on which he has been conducting an innovative and profitable experiment involving the natural regeneration of indigenous tree species.

The regeneration plot is approximately 2 ha in size. When he began managing it in 1987 it was covered with thick fallow regrowth of grasses and shrubs. Similar fallow land can still be seen on adjacent hills in the commune. The plot also contained Fan Palm trees ('Cau' —*Livistonia saribus*) the management of which is subject to cooperative regulations prohibiting their removal. The cooperative receives a share of the revenue gained by the farmer on the sale of products from the palms.

After taking over the plot, Mr Ngung saw that the fallow regrowth contained saplings of several valuable indigenous tree species. He has since managed the plot specifically in order to promote the growth of these trees. Management is primarily for timber and the plot contains about 2500 stems. In addition he is able to gather fuelwood from the stem prunings and from numerous coppice shoots which continue to sprout from under the trees. This fuelwood covers the needs of his own household as well as providing cash income.

These indigenous trees are entirely under his own control: he can decide when to harvest them and where to market the produce. Even so, he took over the land before the current policy of certification really got under way, so he does not have a contract/lease to the plot for a definite period with the cooperative, he is also uncertain about the level of forest tax which will be applied to the harvests or whether tax will be applied at all. But his long term interests in the site are apparent in the fact that he intends to plant a more permanent boundary of bamboo.

A similar pattern of reforestation, through natural regeneration, could be adopted with minimal inputs in many parts of the midland zone. In many

existing plantations now receiving protection natural regeneration of indigenous tree species will also increase and there is considerable potential to gradually convert these plots into mixed species plantations.

In comparison with the social forestry planting model, natural regeneration is a cost-effective means of establishing a plantation. It is rewarding to the farmer precisely because it allows them to grow trees without being heavily dependent on external inputs (nursery consumables and tree seedlings — even if they are subsidized) or tied to external rules and regulations (production contracts). It is potentially, therefore, a far more 'sustainable' form of reforestation of the bare hills. However, natural regeneration depends on having a good stock of nearby seed-trees and seedlings within the fallow plots. These are not present in all places, specially on hill land within the delta where deforestation is complete.

COOPERATIVE MANAGEMENT AND THE DEVELOPMENT OF HILL LAND

Under the umbrella of the Plantation and Soil Conservation Project, a small research project on people's participation in forestry was carried out between 1986-1990 as part of the FAO Forest, Trees and People (FTP) network (Gayfer, Folkesson & Olsson, 1990). FTP enabled research centre staff to work closely with a small number of communes on a broad range of tree based activities. The experiences of FTP Vietnam have provided an insight into the stresses and strains taking place within rural communes as a result of the reforms and the questions this raises for channelling of project support to households and the future of communal efforts. At the outset FTP worked through the cooperative structure which at that time represented the focus for government support and planning in rural areas.

Example 3 — Attempting to develop a bare hill through farmer participation in a multiple use design: Cam Phu Cooperative, Ba Vi District

Towards the edge of the cooperative lies Go Qieu hill. Formerly a cooperative *Eucalyptus exserta* plantation, this 5 ha site had been used for rough grazing following harvesting of the main crop of *E. exserta* in 1980. Subsequent coppice growth of both the Eucalyptus and some scattered *Acacia auriculiformis* persisted although in poor condition, and was

irregularly cut by families living in the area. Cassava cultivation on the lower edges was abandoned in 1986. Grazing appears to have been the major concern, a fact reflected in the cooperatives actions in the early '80s when some Eucalyptus plantations were reportedly clear cut to create grazing sites (Froberg & Olsson, 1989)

In early 1989 the cooperative identified the hill for development as part of FTP's support to the rehabilitation of hills through agroforestry/soil conservation practices. FTP decided to try to develop a physical framework on the hill using Project support to the cooperative. The farmer responsible for a particular parcel of land within the frame would then make his own design in accordance with the long term objective of using the hill in a productive way whilst supporting the restoration of soil fertility and reducing erosion on the site. To do this he could draw on his resources and a package of project help aimed at offering the farmer a choice from which he could select and experiment, depending on his particular product requirements. At the time this seemed a sensible approach, using the cooperatives' capacity to organise and start things off and yet providing some flexibility in management to farmers.

A meeting was convened on the hill involving Project staff, cooperative management and twenty families drawn from a settlement close to the site. Discussion was limited since the approach of the Project in trying to draw out individual farmer land use plans did not reflect the underlying social reality of the cooperatives' intentions to determine one complete land use plan for the hill.

Work started with the division of the hill into family plots, size being determined by family labour. Plots radiated down from the top to the bottom of the hill thereby giving families a gradient of land quality. These vertical boundaries were marked by planting of *Eucalyptus camaldulensis*. Across the slope and roughly following the contour a series of bands were formed by sowing *Tephrosia candida*, a leguminous shrub. This created five vertical zones ranging from Zone 1 — poor stony ground at the top of the hill to Zone 5 — agricultural land at the edge of the paddy.

In further discussions, it was agreed that Eucalyptus would be planted in Zones 1 & 2 at 3 x 3m spacing, with the cooperative paying labour for hole digging. *Acacia mangium* seedlings would be provided to the farmers who could decide where to plant within their plots using their own labour. Other technical options for the farmer for using the land allocated to him

including grass growing (natural or establishment of new varieties), Tephrosia and agricultural crops eg beans, cassava.

Despite the potential opportunity for a diversity of farmer actions uniformity has prevailed and moreover the interests of the cooperative appear to have dominated. Eucalyptus at the standard spacing now covers zones 1-4 with, in some cases, seedlings directly competing for space with coppice growth — even though *E. exserta* is regarded locally as a better construction wood. Guinea grass was planted by all farmers, including those without cattle, in zones 3-4 leaving zone 5 for food crops. *Acacia mangium* was mixed by farmers with the Eucalyptus in zones 1 & 2 and also added to both the vertical plot boundaries and Tephrosia contour hedges. Some variation between farmers does exist in terms of growth of the various components and way in which they have used extra resources eg Tephrosia seed to thicken plot/zone divides.

The cooperative were slow in deciding the terms of allocation and whereas a 10 year user contract with farmers was initially broached, this may now have been extended up to 30 years. The land will no doubt be formally allocated to the cooperative with the resulting agreement with families specifying a 50% division of products from the planted eucalyptus (8 year rotation) for the cooperative as a return on their investment. It is uncertain whether this is just for the first rotation. All other products—Acacia, coppice, grass, food crops etc remain 100% with the family.

The cooperative see the future of the hill both in the short and long term as a eucalyptus plantation. This complies with their policy of turning poor agricultural land into more economic forest plantations. The system of land classification seems in this case to be only a minor influence on land use planning within the cooperative since their approach is one of 'when the crop yield drops (hill) land becomes forest land'.

It is difficult to solicit farmers views on the way in which the hill has been developed or its long term use. It is likely that most who have been offered the chance to participate with the cooperative would accept the conditions set as access to such land is useful and moreover a refusal or conflict of view with the cooperative management may jeopardise other relations that the family may wish to preserve/engender with the cooperative over other questions of support.

The cooperative feels that on degraded hills direct investment by the

cooperative to the farmer — payment for hole digging, free seedlings etc, in accordance with a cooperative land use plan — is the only effective way of utilising such sites. They expect little farmer interest in the guinea grass or *Tephrosia* on the hill as farmers lack the ‘management skills’ and are only interested in rice production not hill crops. This contrasts with an earlier view from farmers who expressed interest in growing fodder on the hill. Subsequent grass growth (natural and planted) on the now protected hill has been impressive and plans exist to manage this resource through a cut and carry system rather than return to the traditional system of uncontrolled grazing.

Example 4 — Establishing and Managing a Soil Conservation Model: Phu Dien Cooperative, Phong Chau District

Qua Trung hill lies towards the centre of the cooperative and is close to a residential area. In 1986 coffee was replaced by cassava and in 1989 the cooperative identified the 4 ha site for FTP activities with plans for the establishment of an agroforestry/soil conservation model. This involved a mix of mechanical — Fanya Juu ditches, cut-off drains, central waterway — and vegetative methods. The latter in the form of contour rows of *Tephrosia candida* and *Acacia mangium* spaced at 8-12m intervals down the slope with cassava fields between.

The cooperative used its own investment and project materials to establish the basic outline to the model in terms of the mechanical structure. Farmers were identified on the basis of those within brigade No 6 (in this case synonymous with a settlement area) who wanted land on the hill and were prepared to support the soil conservation objective of the cooperative. Land was then allocated by the cooperative according to the number of persons in each family.

Acacia mangium seedlings and *Tephrosia* seed was provided by the project and in turn passed on to the 38 families by the cooperative for planting. This was carried out using their own unrewarded labour. Subsequent performance varies considerably between families, some have added their own *Tephrosia* seed and through dense sowing formed a strong and effective barrier to soil wash. Moreover *Tephrosia* hedges have also been used to mark vertical field divisions rather than the traditional ditch boundary which in itself represents an erosion hazard. In other cases there appears to be no apparent interest in the *Tephrosia* and hedges are both

poorly stocked and damaged. In general the *Acacia mangium* trees have not been cared for.

At the site, there are a number of uncertainties over who is responsible for what, which may be having a negative impact on its development. These are:

- Responsibility for ditch and waterway maintenance. The cooperative feels it is difficult to organise farmers as a group for this as in this way they would expect payment. Conversely the farmers do not appear to be in any natural grouping that would encourage them to cooperate independently on this matter.
- Harvesting decisions for the *Acacia mangium* apparently rest with the cooperative although the products are the property of the farmer.
- It is unclear whether cutting decisions for the *Tephrosia* rest with the cooperative or the farmer. With *Tephrosia* production, objectives may vary between the two parties with the cooperative favouring management of the hedge to maximize on-site effects (barrier and soil enrichment function) whereas a farmer may be more concerned with off-site benefits such as seed supply, fuelwood and litter collection for composting and use on the paddy fields.

These examples illustrate current doubts concerning the role of cooperatives in the rehabilitation of hill land. In some instances there is the need to initiate activities that demand group action and responsibility such as whole hill soil conservation systems and the management of areas of natural forest. It is, however, unclear whether cooperatives can represent a community in this way given their historical relationship with households and the current uncertainty concerning their overall future in Vietnamese society. Closer investigation is needed of both possible alternative social units (eg commune, hamlets, kin groups, interest groups) alongside an appraisal of the way in which cooperatives are adapting to their service role.

SUMMARY

What emerges from this analysis is that the most important decisions about who is actually involved in social forestry are being made within the sphere of local commune/cooperative/farmer politics; that is, at the interface between the formal decision-making processes of cooperative management, and the aspirations of individual households as realized in less formal affiliations which also operate within the communes. Evidence of this is to be found in the great variety of contracts made between farmers and the cooperatives which result from the differing status of the land allocated, as well as the independent bargaining power of the 'individual' with respect to the 'collective'. This is an extremely complex situation characterized by great local adaptation of the general models provided by the state for land allocation and reforestation. This indicates that the external agencies involved have little say in how the resources channelled through the social forestry programme are actually used.

According to the original objectives of the programme the clients were supposedly those individuals or households who were illicitly using the trees grown in the industrial plantations. The reasons why people encroach the industrial plantations are well known, they do so in order to gather fuel, to graze animals or cut wood for sale, and the detrimental effect of these activities on the performance of the plantations and fertility of the hill soils are also understood. What is less widely appreciated are the reasons why some people have to rely on these insecure resources in the first place. It has also been assumed that they automatically have access to the necessary land, labour and capital, and to the incentives provided by the social forestry programme itself, to begin tree growing elsewhere as an alternative. In fact, this is not the case for many households.

The programme provides an effective 'start-up' package which allows farm households to occupy newly allocated plots of land. The planting of trees confirms ownership after which farmers can, if they choose and if given the opportunity, embark on the long term task of turning the plots into productive farm holdings. This is helping to overcome the earlier reluctance farmers and cooperatives had about the re-allocation of uneconomical state land, and it is clearly an incentive which should be maintained in some form in the future.

In response to the allocation of long term rights over hill land farmers are themselves thinking hard about how to use these areas most effectively. In

places this is resulting in creative experimentation by innovative farmers as they exploit the opportunities now open to them (Littooy, 1989). This is a spontaneous process being carried out by farmers and cooperatives themselves which is yielding a range of diverse agroforestry models. In view of the fact that many farmers are inclined to turn single species social forestry plots into mixed species forest gardens, it is essential that the state extension service responds to this message. This will entail coming to grips with the wider production objectives and free market activities long associated with the homegardens — a sector of land which was never collectivized and for which institutional support is almost entirely lacking.

However, the current clients of the programme are a minority of richer farmers and cooperative cadre who have the necessary labour power, initiative and understanding of how to play the system to do this. The potential long term rewards for these families are very great, and the programme is providing them with the means of taking this risk, thereby maintaining a trend established by the industrial planting programme of removing access rights for some households. Neither do such activities stop when land allocation takes place; people are either forced to encroach the new plantings or they shift their activities elsewhere, and the consequences of this displacement to other areas of land have not been fully considered. Because of the pressure on land resources it is evident that this is part and parcel of a deeper process leading to increased economic differentiation between households and income groups in the rural areas.

Moreover, owing to a large demand for trees the programme has more or less been confined to arranging for tree seedling production and distribution. This demand stems from both the farmers themselves and from ambitious state reforestation targets. Agriculture and Forest Department staff have been preoccupied with modifying the nursery system to carry a large number of seedlings and their involvement in the process and problems of land allocation to farmers for social forestry purposes has been limited. Stemming from a state drive to re-green the 'bare hills' such issues are being by-passed at most administrative levels.

Some communes are attempting to get to grips with such problems by setting aside areas of hill land for uses other than trees. But in general, there seems little recognition that such great changes in land tenure may also demand a fundamental re-thinking and re-negotiation of the commune and district land use plans. Formerly, land use planning in Vietnam was chiefly concerned with setting production targets for districts and

collectives, a philosophy maintained in the social forestry programme given the emphasis which has been put on seedling production alone. As noted by Sargent (1991), as a result of land reform the individual land user needs greater freedom of choice to decide what to do with the land they are allocated; this choice needs to be built into the plans if they are to act as an incentive rather than a block towards improving land management.

At this point in time it is essential that the various facets of social forestry in the region are closely monitored and evaluated before embarking on an increased scale of activity. This will also enable the necessary resources to be devoted to the development of the extension service and focused research programme, both essential if the policy of land reform in association with social forestry is to be given a chance to fulfil its promise of rehabilitating vast areas of forest land in Northern Vietnam.

However, it is likely that many of the most important decisions will continue to be made at commune level. The scenario presented in this paper bears similarities to problems encountered in social forestry programmes begun in India a decade earlier, which sought to plant trees on land officially categorized as 'wasteland' but which was, in fact, a key resource for poorer households (Arnold, 1990). However, a critical difference between the two countries lies in the fact that the coexistence of landed and landless farmers has not been significant in the evolution of the current land use system in Northern Vietnam whereas it has in many parts of India. The considerable power of the traditional communes and modern day cooperatives in Northern Vietnam to re-direct resources provided by the State to suit local needs, has rested precisely on the fact that they have been able to assure secure if limited access to land to all families; resulting in what Fforde (1990) has labelled a situation of 'aggravated shortage' involving a familiar pattern of simultaneous shortages and slacks created by the central plan coexisting with an extensive development of unplanned activities aimed at the free market. Given this historical precedent it is perhaps doubtful that the local power elites, whether they continue to align themselves within the cooperative structure or not, will allow the current land reform process to result in widespread disenfranchisement of the poorer members of the communes.

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ANNEX 1**Social and Political Change and the Use of Forest Land in Northern Vietnam**

Period	Social & economic policies	Impact on forest land
Pre 1945	Semi-feudal colony — Households were independent production units gaining access to land through tenancy, private resources or share of communal land	Forest clearance by large landlords for plantation crops eg tea, coffee, yet in general a low level of exploitation as low population pressure Communal land — protected sacred forests Private land included rights to trees within cultivated area
1945-54	War against the French — family remained the basic economic unit. Systems of land rental and tenants rights fixed to assist middle and poor peasant families	Unknown
1953-57	Land reform — break up of large land holdings Fields and implements handed to households	Stimulus to an increase in rural production Suspected increase in private tree planting

1958-80	<p>Collectivisation movement — establishment of rural collectives</p> <p>Downgrading of basic socio-economic role of the family, replacement by cooperatives</p> <p>Production units of between 300-500 households divided into work brigades</p>	<p>Nationalisation of most forests. Large areas of forest land put under management of state enterprises, resulting in over cutting and state funded reforestation programmes of varying success.</p> <p>Within cooperatives forest was cut to sell the wood and create land on which food or other industrial crops could be grown</p> <p>Tree planting movements. Problems with 2nd rotations of cooperative plantations. Family efforts concentrated in homegardens</p> <p>'Commons' situation on most hill land in the absence of effective property rights. Land degradation problems exacerbated by influx of migrants from the delta region.</p>
1981-87	<p>Modification of the cooperative management system, start of a movement back to 'family farming'</p> <p>Introduction of the family orientated system of output contracts (Order 100)</p> <p>Brigade often acted as an intermediary between cooperative and household</p>	<p>Investment in forestry still channelled through the cooperative or enterprises</p> <p>Status of District authorities grew and resulted in cooperatives having to comply with district instructions for logging and planting</p> <p>Process of 'giving out land and forest' started some forest land transferred from enterprises to cooperatives and in limited cases to households. Forest owners certificates assigned management responsibilities to families under the guidance of the Forest Protection organisation.</p>

1988-89	<p>Family restored as basic economic unit — Downgrading of cooperative to a service support role (Degree 10).</p> <p>Land law based. User rights can be granted to households for forest land for periods of up to 60 years.</p>	<p>Family investment in forestry outside of the homegarden now officially encouraged.</p> <p>Provincial and District authorities link reafforestation efforts to land allocation and target those cooperatives who have the ability to organize households and can provide part investment in planting.</p> <p>Growing economic problems particularly in enterprises provoke further cutting of remaining forest by both enterprise workers (to generate private income) and farmers as cash income needs increase.</p>
1990-91	<p>Authorities push ahead with land reform — Despite legislation detailing procedures to be followed, most allocations are made outside of the legal framework avoiding the slow and costly methods approved by the responsible state authority. This raises doubts over the planning processes that have been used at the local level and the long term effect of such developments.</p>	<p>The effective 'privatisation' of some plantation areas is restricting access of other households for fuel collection and grazing.</p> <p>Cooperatives continue to play a leading role in reforestation receiving allocations of large areas of hill land and sub contracting families to follow cooperative planting prescriptions.</p> <p>Apparent reluctance by authorities to allocate areas of natural forest. Commune management often ineffective and unregulated cutting continues in many areas.</p> <p>Enterprises experiment with long term production contracts with workers and groups of workers.</p>

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