

## DEVELOPMENTS IN FORESTRY

### Historical Context

In recent years much has been written about the deforestation and subsequent land degradation in the Middle Hills of Nepal (Eckholm 1978; Pereira 1981; Nautiyal and Babor 1985). It is often inferred that this is a relatively recent phenomenon which has occurred due to the pressures placed on the forest by the increasing population. Mahat *et al* (1986a,b, 1987a,b) have documented evidence for a region, including Sindhupalchok and Kabhre Palanchok Districts, which indicates that the forest area in this part of the Middle Hills was reduced at least 100 years ago to the approximate boundaries which are evident today. Apart from minor encroachments, the amount of agricultural and forest land has remained relatively static since about the end of the 18th century.

In the west of Nepal a similar trend was reported by Strebel (1985) who found little alteration in the amount of farming land converted from forest between 1972 and 1984. Caplan (1970), Poffenberger (1980), and HMG (1983) have emphasised the relatively static condition of the arable land area since at least the early 1900s. Bajracharya (1983b) working in the far eastern part of Nepal found only 1.5 per cent of forest land had been taken over by agriculture between 1964 and 1977.

It is evident that in the past large-scale deforestation has occurred. However, most of the potential arable land in the Middle Hills was converted from forest long ago. The non-agricultural land is essentially land that is not capable of sustaining permanent agriculture. This is the land where remnant forests occur (often as depauperate shrubland or grassland) and which is available for forestry activities. In addition, changes in the political structure and legislative framework within Nepal during recent decades have removed the pressures on farmers to clear forests.

The need to increase the amount and quality of forest land was recognised in the 1950s, and in 1966 in the Trisuli River catchment and elsewhere, some tentative measures were taken to implement a reforestation programme. It was not until the 1970s, however, that there was serious effort by the government to address the deforestation problem (Bajracharya 1983a). During the stage

when initial plantings of new forests were being attempted, the National Forestry Plan 1976 was published (NAFP 1979). This plan was designed to provide the guidelines for conservation management and the development of forests.

### The Beginnings of Local Community Involvement

In 1973, local leaders in Thokarpa panchayat in Sindhupalchok District called a meeting to discuss the concern they felt for the deteriorating condition of the forests in their panchayat. A Forest Management Committee was subsequently formed, and the Divisional Forest Officer (DFO) at Chautara (Mr. T.B.S. Mahat) provided assistance to this committee. Many formal and informal meetings and consultations took place during this period which marked the beginning of the consultative process between Forest Department staff and local communities (Mahat *et al.* 1987b).

Commencing in 1973, areas of natural forest were brought under protection (notably at Thokarpa, Banskarka, and Pipaldanda). In almost all cases, the majority of the labour was provided voluntarily, in spite of the fact that the land involved was HMG owned and controlled (in law if not in practice). Small areas of plantation were also established in the above panchayats and in other areas.

During this period, the general ideas and concepts underlying what was happening began to crystallise. It was postulated that without community awareness and participation in conservation, deforestation and consequential environmental degradation would continue. It was recognised that the local community needed to become involved in establishing forests and more importantly, protecting the forests from grazing and illegal cutting. The non-arable areas could be reforested, provided the people accepted the change in land use, and the operation could be carried out within the social and political framework existing in the community. There was a need to motivate communities, assist with technical expertise and above all, help the people to help themselves (Campbell and Mahat 1978). Plantation development over a large area depends on successful demonstration of community involvement. A focal point is required for con-

centrating activities such as workshops, films, and discussions with politicians and village leaders and to focus public attention.

The districts of Sindhupalchok and Kabhre Palanchok were seen to be such a focal point and from there the concept of community forestry could expand throughout the Middle Hills. People's attention had to be focussed and they had to be shown by example that not only did the products of the forest belong to them but also that they themselves had to participate in the management of these forests. It was also found that by working with and through local, motivated politicians many pitfalls could be avoided.

The reforestation efforts of the Chautara DFO and several local communities during the mid - 1970s proved to be extremely successful and the experiences gained assisted in the formulation of a legislative framework which could take account of this relatively new concept. The 1978 Panchayat Forest and 1978 Panchayat Protected Forest Legislation and the Leasehold Forest Legislation paved a legal path by which communities could have land transferred from the government to village panchayats for their own forestry activities. This legislation proved to be the cornerstone of community forestry in Nepal. It allowed the thoughts and hypotheses of the Chautara DFO and others regarding communities growing,

protecting, and managing their own forests, to be put into practice under the umbrella of the Forest Department's district organization.

#### The Nepal-Australia Forestry Project

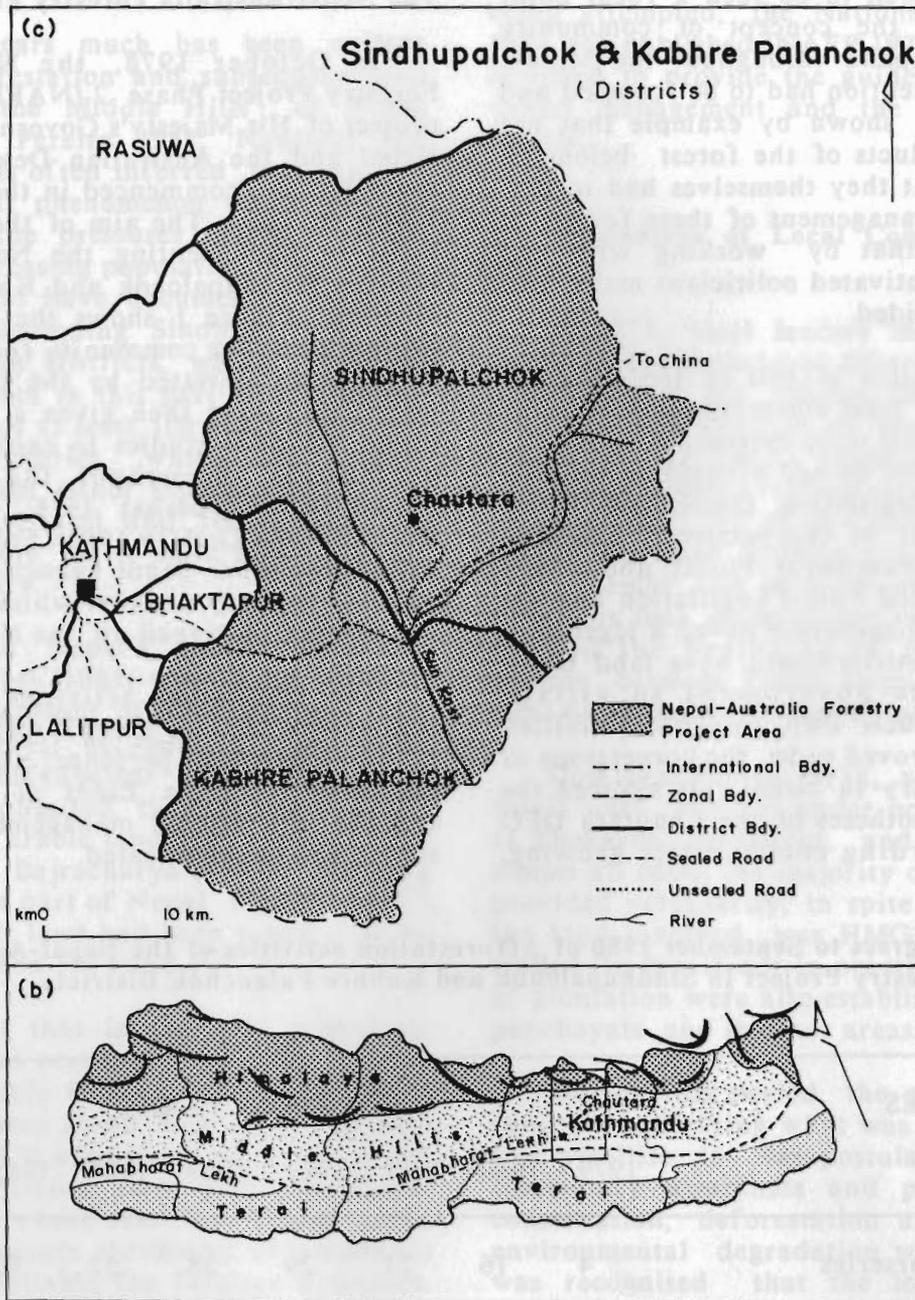
In October 1978, the Nepal-Australia Forestry Project Phase 2 (NAFP/2), a bilateral project of His Majesty's Government (HMG) of Nepal and the Australian Development Assistance Bureau, commenced in the then Chautara Forest Division. The aim of the project was to assist in implementing the National Forestry Plan in Sindhupalchok and Kabhre Palanchok Districts. Figure 1 shows the location of the project area. The community forestry activities which were initiated by the DFO during the mid-1970s were then given a boost which allowed his pilot studies to expand and become operational throughout the two districts (Campbell and Mahat 1978; Shepherd 1981; Shepherd and Griffin 1983). Following the 1978 legislation, other donor agencies initiated community forestry projects which were, to varying degrees, patterned on the NAFP.

The forestation activities in the project area commenced on a small scale using existing Forest Department personnel and limited funds and other resources. Lines of communication and the operational management system were simple and uncomplicated.

**Table 4. Progress to September 1986 of Afforestation activities of the Nepal-Australia Forestry Project in Sindhupalchok and Kabhre Palanchok Districts**

ACTIVITIES	PLANTING YEARS							
	1979	1980	1981	1982	1983	1984	1985	1986
Number of nurseries	4	16	21	29	38	52	92	114
Annual seedling production(000)	765	825	1210	1314	1900	2210	2346	4386
Annual plantation establishment (ha)	100	283	484	676	995	1199	1347	2082
Number of panchayats in which NAFP is operating	5	18	24	40	57	71	100	111
Cumulative forest area (ha) established (PF, PPF and HMG)	100	383	867	1543	2538	3737	5084	7166

Figure 1. Map of Sindhupalchok and Nepal Australia Forestry Project.



By the end of Phase 2 in 1985 the project had reached the stage where many of the technical and social problems of plantation establishment had been solved so that a large scale programme was feasible (Table 4). Current planting rates in Phase 3 (commencing in 1986) are in excess of 2000 ha per annum, and the area planted each year covers about 150 small planting blocks. The large programme necessitated the development of an administrative structure to coordinate the activities of the large, recently trained workforce.

During the past several years there has been a constant backlog of applications for assistance from village panchayats. In late 1986, 57 applications were outstanding. During most of the preceding six years the constraints on expansion were not the lack of interest or enthusiasm of local communities, but rather a lack of resources (largely, trained manpower) and administrative ability within the project and the Forest Department.

Commencing in three panchayats with three nurseries, the project has expanded to a stage where assistance is given to 114 nurseries (Plate 5) and 111 panchayats (Table 4). Though initial progress was slow, everyone involved in the programme developed experience, knowledge and confidence. There is a limit to the speed at which this can take place.

### Planting for Success

The determination of success of community forestry must be carried out from a local viewpoint (Campbell and Mahat 1978). Given a legal framework in which to operate, the

technical aspects of nursery and plantation establishment pose relatively few problems. Consequently, the success of the programme ultimately depends on community acceptance and involvement. It cannot be overstressed that, in order to establish and manage viable plantations and forests protected by the people, the mechanisms employed to undertake this must be within the established social framework. A recipe for success in development programmes summarised by Bunch (1981) is relevant to conditions in Nepal.

- o the solution must be within their means;
- o the people must have faith in the programme personnel;
- o the challenge must be simple enough at first so that people can participate, yet become increasingly complex so they can grow in their ability to deal with problems and feel an increasing sense of achievement.

The NAFP experience has shown that large areas of land can be reforested through a community forestry programme. This is possible because the villagers actively participate in managing their land and establishing forests on community-owned land (Plates 6, 7 and 9) as well as on land belonging to HMG. The forests, irrespective of land tenure, are established without the use of fences and are protected by the local people. It has been demonstrated that technical problems can be more easily solved than those social and political problems which can exert a great influence on forestation activities.



Plate 5 A community nursery provides a range of tree seedlings for planting on communal and private land.



Plate 6 Broad leaf species which have a multiplicity of uses are favoured by the rural communities for planting on their agricultural land.