# **Interaction between Forest Policy and Land Use Patterns**

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#### Abstract

Switzerland, through the Swiss Agency for Development and Cooperation (SDC), has been involved with community forestry in Nepal since its inception in the early eighties. Persistent financial and technical support to influence policies and build the capacities of forestry officials and community organisations has led to the reversal of land degradation and increasing poverty, features which became strongly associated with Nepal in the seventies and eighties. The protection and improvement of the vegetation cover of fragile slopes under the community forestry programme has led to the increased productivity of land; and to providing more employment, income for rural households, and improvements in their livelihoods. A very crucial factor in this success was community organisation and women's involvement. This degree of organisation and inclusion is a development that was not considered possible by many, including the author, when he was working in the Nepalese hills in the seventies. Overall, forest policy and community-based forest management have led to improved incomes, food security, and health for local communities, at the same time enhancing the conservation of biodiversity and the general condition of the environment. This experience in Nepal conclusively shows that enabling policies that entrust and empower communities to manage their resources are critical for sustainable development of people and the protection of their environment.

#### Introduction

Why is Swiss Development Cooperation (SDC) so keenly interested in the interaction between forest or land-use policies and land-use patterns? Our collaboration in hill 20 agriculture, mountain development, and community forestry in Nepal and our experiences in sloping land management in South and East Asia showed us the decisive role these policies have on land use, on exploitive and on more sustainable use. Why is it most appropriate to hold this workshop here in Nepal? The presence of the International Centre for Integrated Mountain Development (ICIMOD) and the Regional Community Forestry Training Centre for Asia and the Pacific (RECOFTC) here is a good reason. A stronger reason is that Nepal, with its population pressure, deforestation, and land degradation provided one of the most influential domesday scenarios for the Earth Summit in Rio in 1992. In the 1980s, Nepal was the country with the highest deforestation rate worldwide. And, over the past few years, Nepal most likely has one of the highest reforestation rates worldwide. What made the difference? I want to highlight the importance of Nepalese forest policies; and add that Nepal has played a pioneer role in community forestry. It has enlightened leaders, such as Dr. Tej Bahadur Mahat, who permitted the Thokarpa community to make - if we oversee indigenous practices - the first, new experiences in community forest management, and who later played a key role in the renewal of forest policy and forest legislation. We are delighted to be here to contribute to this exchange of experiences and common learning. This introduction reflects SDC's interest and insights into

Nepal's forestry policy and management of sloping land and relates to other experiences in the region.

#### SDC's involvement

SDC's engagement in forestry development in Nepal dates back to the 1970s in the Dolakha, Sindhupalchok, and Palpa districts, and presently consists of the Nepal-Swiss Community Forestry Project in Dolakha, Ramechhap, and Okhaldhunga and collaboration with RECOFTC. Community forestry is one of the most successful natural resource management (NRM) activities in Nepal, combining the efforts of His Majesty's Government, non-government organisations (NGOs), communities, and private enterprises. By and large, community forestry has reversed the processes of forest destruction and degradation to productive and sustainable use. Ad hoc and destructive collection of fuel, timber, and other forest products has decreased considerably, as have forest grazing and slash and burn practices. Forests are closed, 'socially fenced', protected, and managed more intensively in a more productive and sustainable way.

### **Evolution of forestry policy in Nepal**

Nepal, being a hilly and mountainous country, has a very sensitive environment. Population increase has led to excessive extension of agricultural land through encroachment of forests on sloping and steeper and steeper land. From 1981-1985, Nepal was reported to have the highest deforestation rate in the world -4.1% per annum (World Resources Institute). Overgrazing and deforestation led to a sharp decline in overall biomass production.

The enactment of the Private Forest Nationalisation Policy in 1957 marked the beginning of a national forest policy in Nepal. The policy was formulated with the good intention of using and protecting the forests better, and of using forests for national interests and public welfare; but the policy could not be properly implemented. The capacity and will for proper implementation were lacking. The policy undermined the rights of local communities who had been managing and using the local forest resources for subsistence according to their traditional systems. The policy resulted in the destruction of vast tracks of valuable forestland. Nepal's forests took the route of the 'tragedy of the commons'.

Under the Forest Policy of 1961, attempts were made to protect, manage, and use the forests for the improved economic welfare of the people and the country. Accordingly, Nepal's first Forest Act was promulgated and enacted in 1961. This Act concentrated on state ownership of, and authority over, forests and all land except agricultural land. It advocated that all other land, apart from agricultural land, was to be treated as forest. Thus the Act encouraged the conversion of more forest into agricultural land to claim that the land constituted private agricultural property. At that time the deforestation rate was extremely high. Officially, the national forest cover declined from 51% in 1950 to 45.6% in 1964.

When the Special Forest Policy 1967 was promulgated, all forest offences, including forest encroachment, were treated as state crimes. District forest officers were authorised to put offenders in jail. However, deforestation did not decrease. In 1976, the National Planning Commission formulated the National Forest Policy with the objectives of maintaining and restoring the ecological balance through reforestation and watershed management programmes. The problems of encroachment and

deforestation were not properly addressed during this period either, and forest area continued to decline from 45.6% in 1964 to 35.7% in 1977.

Through the legislation of the sixties, the local communities, the traditional custodians of the forests in the hills and mountains, lost their authority over forest management. In 1978, the Government of Nepal reintroduced the concept of community forestry to involve the local communities in forestry. The first experiments in community forestry were in Sindhupalchok district. Since forest law didn't provide any scope for community management, the District Forest Officer of Sindhupalchok, Tej Bahadur Mahat, took a very unconventional and courageous decision. He tolerated, enabled, and finally encouraged a village initiative under the Decentralisation Act. In 1989, the Government of Nepal formulated a long-term forestry policy called the 'Master Plan for the Forestry Sector' which opened the way for community forestry. In the policy, community forestry was given top priority. The Forest Act of 1993 and Forest Regulations of 1995 were promulgated to give the forest policy legal status and to facilitate field implementation.

## Impact of policies

Figure 1 shows the Doomsday scenario of the seventies. It depicts the negative impact and consequences of population pressure and a centralised, poorly implemented forest policy. Increasing population pressure led to increased deforestation and overgrazing of forests, triggering high precipitation runoff, soil erosion, and inundation. This in turn negatively affected the availability of food and water and resulted in poor health, poor human productivity, and the destruction of infrastructure downstream. Additionally, land and forest degradation caused extensive loss of biodiversity and alteration of habitats. Ultimately, this led to natural resource degradation and increased poverty. Note that in the scenario in Figure 1, all interactions are negative and there are a number of vicious cycles.

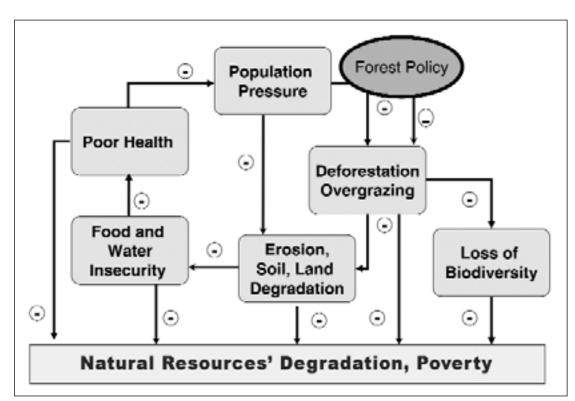


Figure 1: Centralised forest policy leading to deforestation and land degradation

The land-use system we can now observe in large parts of the Nepalese hills and mountains is a completely different one (Figure 2). Community forestry is at its heart. The new forestry policy and legislation encouraged it. A decisive factor in this was the change in livestock management, from free grazing of fields (in the dry season) and forests to stall-feeding. An important pull factor here was milk marketing and market access, often based on investment in infrastructure. Cows were replaced by improved buffaloes. Schooling was given priority over herding. Stall-feeding not only removed grazing pressure on forests, gullies, and common land, it also increased the soil fertility of agricultural lands through improved use of manure and nutrient cycling. The control of cattle changed the landscape, allowing trees and bushes to grow on field borders. gullies, and roadsides; and it opened the way for very intensive and productive agroforestry systems. The protection and improvement of vegetation cover also led to improved water supplies to households in terms of more and cleaner water. In addition, the availability of water in the dry season allowed women to increase vegetable production and earn more income. The increased productivity of land provided more employment and income for the increased population and contributed to improved livelihoods. A very crucial factor was community organisation and women's involvement. This degree of organisation and inclusion is a development I certainly did not consider possible when I was working in the Nepalese hills in the seventies. Overall, forest policy and community-based forest management have led to improved incomes, food security, and health for local communities, at the same time helping the conservation and enhancement of biodiversity and much more sustainable use of a very fragile ecosystem.

This experience in Nepal conclusively shows that user rights are of utmost importance for the productive use of sloping land. There is ample evidence that this is the case in other countries where SDC is engaged. Bhutan and Vietnam recently have adjusted forest legislation to encourage community forestry. The Democratic People's Republic

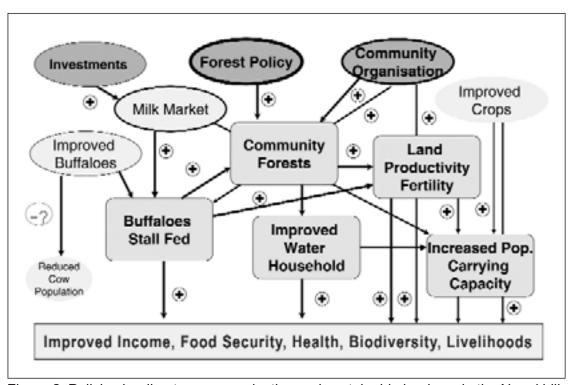


Figure 2: Policies leading to more productive and sustainable land use in the Nepal hills

of Korea still has a forest regulation similar to the one Nepal had in the fifties, leading to extreme deforestation and erosion. In collaboration with SDC, the government is now supporting experiments in community forestry. Similarly, in Mongolia, widespread overgrazing of pastures is the result of ill-defined user rights, a classic case of the 'tragedy of the commons'. Experiments in community management and social fencing should open the way to more productive and sustainable pasture management.

## **Policy implications**

There is increased awareness now about the need to understand the implications of policies at different levels, from the local to the global. Global policies, such as the World Trade Organisation's (WTO) policies on trade and the European Union's (EU) policies on agriculture have important bearings on national and local economies. Hence, national polices on forestry as well as on investments and infrastructural development need to be cognisant of these international policies if economic benefits are to be realised and negative consequences mitigated. National policies that support good governance and decentralisation have far greater chances of building national capital to compete in a globalised world. At the local level, policies that address the access to resources and equitable distribution of benefits from local resources are of great importance in improving the income and standards of living of communities.

To conclude, there is great potential for addressing poverty and environmental concerns through improved national and local policies. Development partners need to place more emphasis on contributing through adequate policies to an enabling environment.