

General paper

A glimpse of forestry in Nepal

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Summary

Amidst the devastating impacts of deforestation and environmental degradation, many rural communities in Nepal have adopted an approach to development centred around the principles of community forestry. Community forestry is designed to facilitate local communities to develop sustainable forest management practices which conserve natural resources while ensuring an adequate supply of forest products for the future. This involves the participation of all forest users and potential stakeholders, and the harnessing of local knowledge and indigenous forest management practices. Through the activities of community forestry, many local communities in Nepal have gained the organisational skills, experience and confidence to address broader development needs, such as community health, education and sanitation.

Introduction

Located at a latitude similar to Florida, the kingdom of Nepal is probably best known for its spectacular Himalayan mountains and as the home of the Gurkha soldiers. Probably less well-known, but almost as notable, are the advances which have been made in Nepal in the concept and application of community forestry.

As a country, Nepal is profoundly influenced, both socially and politically, by its two geographical neighbours, India to the south, east and west, and the Tibetan province of China to the north. Nepal is almost exactly twice the size of the Republic of Ireland, with the distance between the northern and southern borders varying between 145-190 km. The country is approximately 900 km from east to west. The elevation of Nepal ranges from 90 m above sea level near the southern border with India, to over 8,800 m at the highest point on the earth, Mount Everest.

There are five distinctive regions in Nepal – the Terai, the Siwaliks, the Middle Hills, the High Hills and the Himalayas – each with its own unique features, culture, flora and fauna. The low plains of the Terai and the most southerly region are very similar to northern India in terms of climate, vegetation and culture. This region accounts for the most productive farmland in Nepal, with 70% of the country's arable land found here. The forests of the Terai are mainly of a tropical deciduous nature, and are mixed with dense stands of elephant grass up to 6.0 m tall. To the north of the Terai are the three hill zones, the Siwaliks, the Middle Hills and the High Hills, each increasing in altitude and hilliness.

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The subtropical wet forests of the Siwaliks and the Middle Hills are mainly made up of broadleaves, bamboo and various rhododendron species. Forest cover in the High Hills includes a temperate mixture of conifers, oaks, bamboo and rhododendron. The mainly uninhabited Himalayas make up the final region, and include eight of the 10 highest peaks in the world.



Monsoon clouds lifting over the terraced Middle Hills region.

Natural forests cover approximately 5.5 million ha or 37% of the total land area. There are over 6,500 flowering plants found in Nepal, including 30 species of rhododendron, the national flower. Most of these flower between February and May, creating a spectacular foreground to the snow-clad Himalayas.

Nepal has a typical monsoon climate, with most rain originating over the Bay of Bengal and generally moving in a north-westerly direction. Eighty percent of the annual precipitation falls between June and September. The Terai receives most of the rainfall as well as the highest temperatures, with both decreasing to the west and with increasing altitude. The amount of rainfall varies significantly with location, but it is not unknown for some regions to experience 1.0 m of rainfall in a single month. This has a devastating effect on an unstable landscape such as that of Nepal. Apart from the threat of physical danger (in 1993, over 5,000 people were killed in Nepal by floods and landslides), estimates of erosion have been as high as 60 m³/ha of top soil per year.

Principles of community forestry

Over the past 10 years, community forestry has become accepted as one of the keys to successful rural development. Having its origins in the late 1970s, the community forestry

movement followed a number of failed attempts to combat deforestation and over-exploitation of local forests in developing countries. These attempts involved vesting ownership of all forest land in the central government, prohibiting unauthorised forestry activities and keeping out local communities and forest users. These moves were based on the conventional wisdom that, if given control, local people would strip the forest bare for profit and survival. In most cases, rather than controlling exploitation, this move resulted in an acceleration of deforestation and general degradation of the forest resource.

Community forestry principles are based on a different conventional wisdom. This is that local people are part of the answer, not the problem, and that forest management policies must involve participation by local people. In many areas of the developing world, forests are used by long-established local communities who have a wealth of local forest knowledge and already practise some form of indigenous forest management. Community forestry seeks to exploit this knowledge to its full potential.



Seeds are planted directly into polythene pots in a community nursery, Jumla.

There are three basic stages involved in the community forestry process. The initial stage is based on the participation of local people in government forestry decisions, subsequently leading to a transfer of control of the forests from the government to the local people, and then ultimately to a stage where the local community manages the forest to meet its needs, processing and marketing any surplus produce. Two of the essential elements of community forestry are: the empowerment of local people through training, extension and technical assistance (this is often the role of an aid agency or a non-governmental organisation (NGO)); and a fundamental change in the role of local government appointed foresters. This change is from a land manager to an extension forester, teacher and facilitator, or, as has been more euphemistically described, from policeman to partner.

Any successful community forestry programme will include a number of essential components. Although these will vary between countries and regions, some of the more

fundamental ones are as follows:

An identifiable community and forest area: Straightforward as this may seem, it is not always easy to identify the extent of the local forest-using community. This is especially the case on the fringes of urban areas or in regions where significant migration has taken place. The local forest area can also be difficult to determine, particularly where conflicts of use occur.

Security of land use or tree tenure: In most countries, governments are reluctant to transfer land tenure to local community groups. They are, however, often willing to transfer ownership of the trees and use of the land under certain conditions.

A management plan: This comprises a set of guiding principles and management objectives which will determine the future management of the forest. These are often developed with the local government appointed forestry official, or with the assistance of an NGO, and will be approved by the local government representative before the forest is handed over to the local community. The management plan is usually based on existing indigenous management systems. It is essential that the plan takes into account the requirements of all potential users of the forest, and strikes a balance between any short- and long-term conflicts of interest.

The authority to make and enforce regulations: Authority must be vested in the local community following transfer of the forest area, in order to allow the management plan to be effectively implemented.

A means of monitoring forest management: This is necessary so that serious breaches of the management plan can be corrected.

Commitment from the central government: It is essential that both the local government representative and central government are committed to the programme and are willing to divest themselves of control of forest areas.



All members of the community take responsibility for the establishment and protection of new plantations.

The application of community forestry in Nepal

There are approximately 5.5 million ha of natural forests in Nepal. These primarily provide basic community needs such as fuel, fodder and bedding for animals, as well as building materials and often basic food supplements and traditional medicines. Due to accessibility and terrain, the Terai region is largely the only region of Nepal with any capacity for commercial wood production. Most of the natural forests are in the hill regions and are being managed by long-established communities. Many communities, however, lack the organisation to effectively conserve this resource, and have no authority to protect it.

Community forestry is a comparatively recent introduction to Nepal. In 1957, all forest land in Nepal was nationalised and brought under government control and protection. Most of this land had previously been under some form of local community management. Rather than protecting the forests, however, nationalisation resulted in an acceleration of deforestation and a general degradation of the overall forest resource. In fact, between 1965 and 1985, almost 600,000 ha of forests disappeared and almost all of the remaining forests suffered severe degradation. In 1989, the government of Nepal adopted a forestry sector master plan which was designed to reduce government control over large forest areas, thereby allowing them to revert to the control of local communities. The corresponding Forest Act, which incorporated many of the community forestry principles, was then passed in 1992. One of the reasons community forestry has worked well in Nepal is that many of the essential ingredients outlined above already exist or are ready to be put in place.

Community forestry in Nepal is based around the establishment of forest user groups. In some cases, these are formed after a significant amount of extension and motivation work, often with the assistance of an external agency or NGO. It is essential that the forest user group includes all forest users within the community, including those normally marginalised due to caste or gender. In Nepal, it is often necessary to structure the forest user group so that women are allowed to have a strong influence, as they are the ones who carry out most forestry activities such as the collection of fodder or firewood.

Once formed, the forest user group is responsible for formulating a management plan for the area of forest which its members commonly use. The areas must be defined in the plan, and areas where there are conflicts of use need to be resolved. This is often one of the most difficult and tricky stages in the process. The local District Forest Office may have input into the development of the plan, but more often, it is largely determined by the forest user group. A typical management plan will include information on where timber can be harvested and during what seasons, the allowable cut, the amount of firewood which can be gathered, areas under total protection, when and where new plantations are planned, etc. When the plan is completed, it is submitted to the local District Forest Officer who can then approve it or suggest and discuss changes.

If the management plan is approved, the forest area in question is handed over to the control of the forest user group. The group will then own the trees but not the land. As well as a transfer of ownership, there is a divestment of authority from the District Forest Office to the group. All forestry activities will then be determined and undertaken by the group in accordance with the management plan.

Although the primary objective of community forestry is to facilitate local communities to address important forestry issues, its ultimate goal is a much more holistic type of rural development. In fact, if community forestry is to be successful, it is essential that other basic community needs, such as water supply, sanitation, community health and

education, are also addressed. In many cases, communities which have gone through the community forestry process have gained essential organisational skills, experience and confidence to undertake other projects. Any surplus funds generated from the forest can be reinvested in the community in projects determined by the forest user group. These may include the provision of clean water supplies, soil conservation, building a local school and hiring a teacher, non-formal education programmes, or any other activity which addresses a need that has been identified by the community itself. The role of an NGO in these circumstances is usually to provide technical advice or training. It is essential, however, that the actual issues have been identified by the community.



Women carry out most of the forestry tasks, including fodder and firewood collection.

Conclusion

Although the social demands on Irish forests are worlds apart from the needs of the hill communities of Nepal, a number of parallels can be drawn between both countries in terms of the principles and objectives of community forestry. This is all the more so in the context of current efforts in Ireland towards achieving sustainable forest management, and in particular, its approach to forest users and stakeholders.

One of the ironies of such a comparison, however, is the parallel which exists between community forestry practised in the remote areas of the developing world, and its application, under the guise of urban forestry, among urban communities in the western world. The essential ingredients of a motivated community which is geographically defined and aware of how the local forest resource can contribute to well-being of its members, are no less important in inner-city Dublin than in the remote Middle Hills of Nepal.

A clearly outlined management plan which considers all users and potential beneficiaries and which seeks to balance sustainability with ongoing utilisation of the resource, is

essential in both scenarios. The commitment of both the community and the local authority to community forestry principles, and the divestment of some level of authority to the community to oversee and implement the plan, are just as valid in Ireland as in Nepal. In addition, the effective application of community forestry can produce the necessary organisational infrastructure which often provides a vehicle for tackling other non-forest related needs and promoting a broader overall development.

There are, however, dangers of extending these parallels too far. While community forestry in Ireland can contribute to the social well-being of a community, in Nepal the practice contributes to actual physical survival. While in both countries the initial stages of community forestry often require considerable extension and education with regards to its potential benefits, few Irish community forestry projects ever generate the level of motivation and commitment of the entire community often secured in Nepal. Out of sheer necessity, whole communities commit considerable amounts of time and resources to ensure success of the programme. The evidence is that community forestry programmes in Ireland can learn much from our Nepali counterparts.