



What is Forest Management ?

Forest Management is the way that forests and the trees within them are protected and used to provide forest products and other benefits. In order to manage a forest, the different objectives must be decided upon, and a work plan is made according to this. Just like

any farm management, the work plan to manage a forest means what work to do, where, when, and how. Before starting forest management, the capacity and working process of those who are to do the work and benefit from it (user group) should be considered. This may be a community, family, individual, or other organisation which will work in and benefit from the forest.

In Nepal, community forest is a resource of primary importance. That's why it's very important for communities and user groups to learn about forest management. In this chapter, information is given in particular about community and private forest management.



The forest we keep, keeps us.

Why do Forest Management ?

Most people already know that the forest gives them many direct and indirect benefits. Daily needs such as fodder, firewood, leaf litter, timber, and various herbal medicines are available in the forest. The forest not only protects and improves the environment around settlements, it even helps to provide us with safe, clean drinking water.

This is something that people have come to understand since early days. It is also why forest management has been part of the local community for a long time.

But for many reasons, the forest has been disappearing before our eyes. As population has continued to increase, on one hand more forest resources are needed, yet on the other



hand, population pressure has decreased the forest area and had a bad affect on the environment. With efficient and appropriate ways of conserving and developing forest products such as trees and medicinal herbs, the well-being and productivity of the family and community can increase, and poverty will decrease.



This Chapter's Author :
Hari Prasad Dhungana
Federation of Community Forest Users'
Groups, Nepal

How to do Forest Management ?

Background

A very important factor together with "how" to manage forests is "who" is managing them. Considering this, the Nepali government has made various regulations. The Forest Department, together with non-government and other organisations have participated in developing a set of regulations to help forest user groups manage their own forests.

The forest law covers the management and use of religious forests, leasehold forests, government managed forests and protected forests. However, community forest and private forest are considered to be the most important types of forest.

In recent years, the amount of community managed forest has increased greatly. However, user groups have still not been able to realise the benefits of truly sustainable forest management.

Over time, there have been many ways that the forest has been protected, developed and its products distributed amongst its users in homes and villages. These management methods have been improved in different places and at different times, but there is still room for improvement. We should now use the lessons of experience, and take forest management forward to cater for the increasing population.

Community Forest

This is where national forest has come under a local management plan, and has been handed over from the district forest office to a village committee responsible for the implementation of the management plan.

Private Forest

This is where trees and forest on any private, registered land may be managed.

Some details of registering community and private forest are give on page 14.



By planting trees on farm land, forest products are brought closer to the home. This saves time and helps to protect the forest. Read the *Agroforestry* chapter to learn more.

Things to consider in forest management

Objectives of forest management

The forest can be managed for various objectives. The main objective of managing community forest is often to sustainably provide for the needs of firewood, fodder, timber, etc. in the community. Management of private forest may, for example, be for the maximum output of good quality timber. There may be many other objectives in forest management. Just as the objectives are different, the management work in the forest will also be different.

Needs and abilities of the community or individual

The different needs of a community or individual will determine why and how to manage the forest. In community forestry, the needs and hopes of the community are most important. But individual or family needs usually take priority in private forests.

In managing a community forest, the opinions of all users of the forest are important to create the management plan. This may include religious or cultural reasons for protecting or using the forest.

This a map made by the user group for a forest management plan in Kavre district, Central Nepal



What is a Forest Management Plan ?

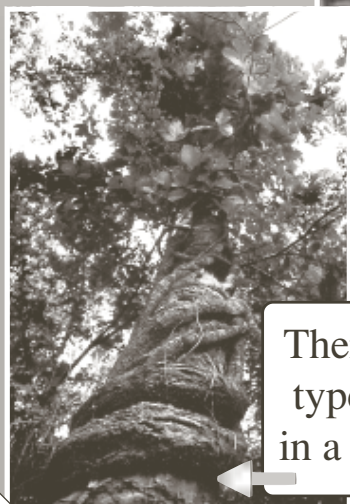
A forest management plan is a written or understood agreement for a programme of work in the forest, in terms of who does it, and where, when and how the work is done. In community forestry terms this can also be called an "**action plan**", and can include issues relevant to national forest law.

Forest Site Conditions

The condition of the forest will differ in different places. Factors such as types and species of trees and shrubs, soil type, moisture, fertility, and aspect all cause great diversity, and affect productivity in the forest. While preparing the forest management plan, an evaluation of the *growing stock* of productive trees and shrubs, and their *growth rates* is an important step. Keeping good records of this will enable the user group to estimate the amount of products which can be sustainably gathered from the forest area.



Here you can see the trees, but it's not a good forest. There are no plants in the ground layer, so this space has no productivity.



There are many types of plants in a good forest.



Important resources such as soil are lost without the forest cover.

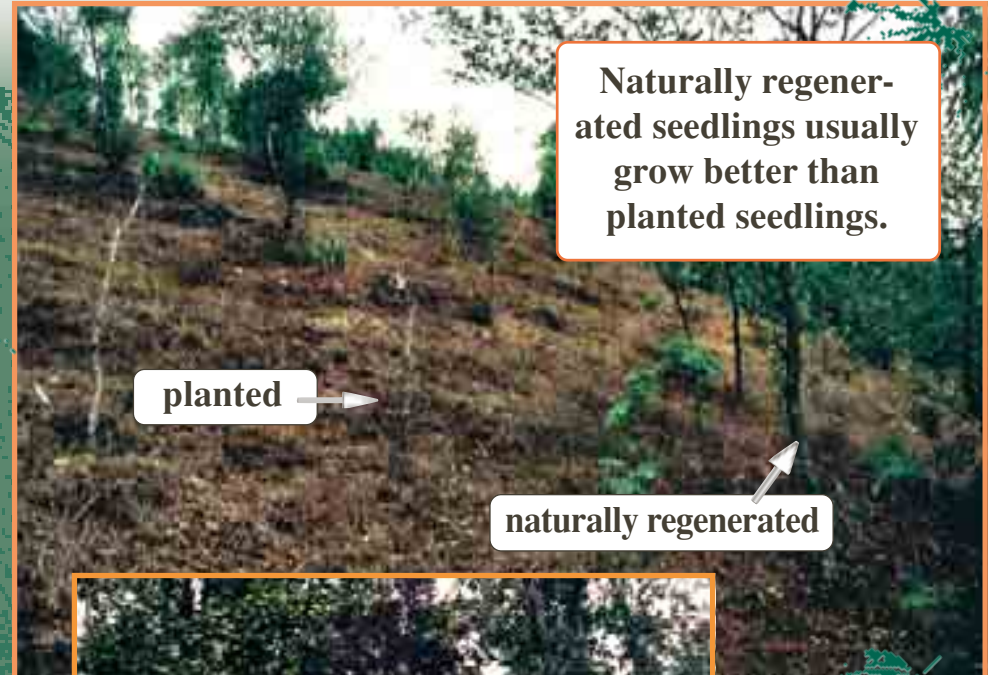
Finding the resources to manage the forest

There are various resources needed in the process of forest management. For example, if making a plantation, or other activities, there must be good public participation to form the users' group committee, and agree on the management plan. This can be called the **human** resource. It costs to produce seedlings to plant, and there are many other visible and invisible costs that the people managing the forest will need to bear. These human, financial and physical resources have a big affect on management work in the forest.





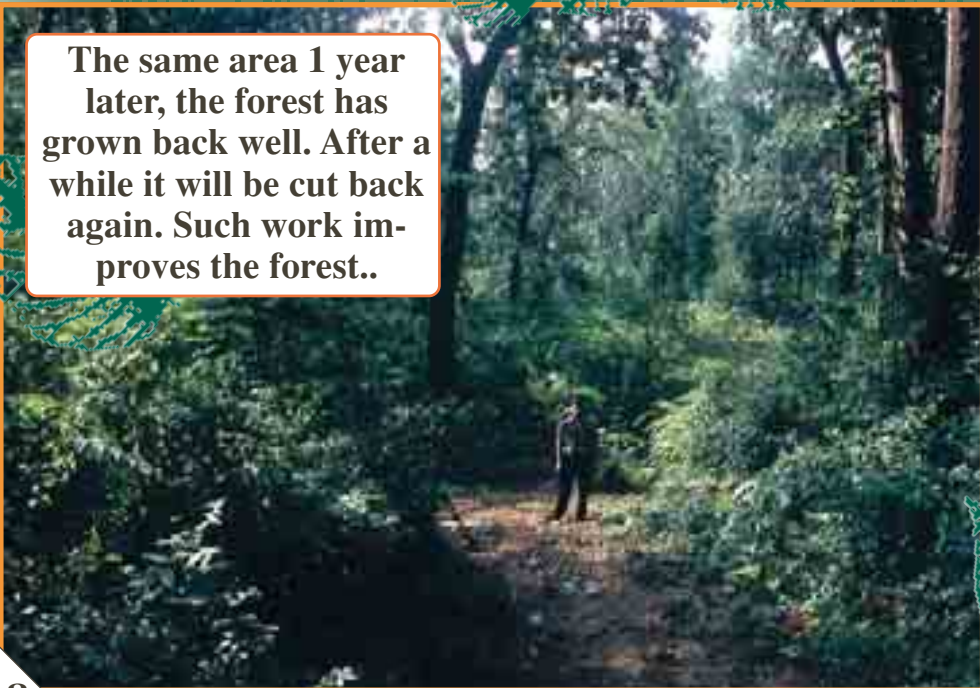
In this community forest, unwanted species have just been cut back, and useful thinnings harvested.



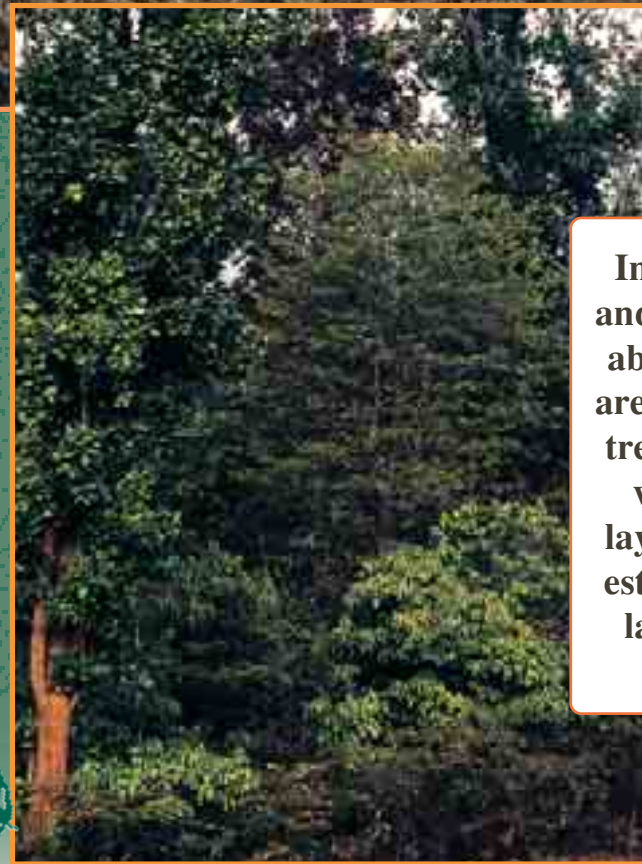
Naturally regenerated seedlings usually grow better than planted seedlings.

planted →

← naturally regenerated



The same area 1 year later, the forest has grown back well. After a while it will be cut back again. Such work improves the forest..



In a productive and truly sustainable forest there are many types of trees and shrubs which fill all layers of the forest, from ground layer to upper canopy.

Work in the Forest

Plantation

Bare ground, clear glades in the forest, and even terrace edges in fields can all be planted with useful trees. Appropriate non-timber and medicinal plants which are needed by the household and community can be chosen and planted, as well as trees grown for timber. These can be grown in a nursery, or wild plants can be collected from the forest and planted. To learn about species selection, planting distance, propagation and planting methods, you should seek technical advice from the relevant places, such as the local district forest office or appropriate NGO, and request extra training.

Plant more useful plants in bare areas of the forest.



Weeding and Fire Control

Clear weeds from around newly planted or regenerated seedlings to help them grow, and protect the area from the harmful effects of fire and free-range livestock. Some trees may suffer more from fire, while slow growing plants suffer more from weed competition. This work protects trees from pests and diseases, and helps the seedlings to grow faster.



Thinning

Thinning practice is different depending on the different objectives of the forest management plan. For example, if the objective is only firewood production, trees can be grown closer together. But for good quality timber, the lower branches of selected trees may need pruning. Some types of fodder tree are best cut in different ways at different times of the year. To make space for more valuable species, less useful trees and shrubs can be gradually cleared. For example, if there is too much pine, this can be thinned out and other more useful or desired species planted in the gaps.

If many branches regrow from the stumps of cut trees (coppicing), a good tree can be grown by selecting the best one or two stems and cutting the remainder.



More information about this is given in the *Soil Conservation and Improvement*, *Integrated Orchard*, and *Agroforestry* chapters.

Final Harvest

Fodder trees may be cut several times a year, or once every 2 years, after which they will regrow. Harvesting timber means felling the whole tree. Some herbal medicines come from harvesting roots, some from fruit, or flowers, or bark, etc. In this way benefits are harvested according to the management plan. The management should include planning and preparation for future rotations of crops.

By selecting and thinning, useful products are harvested as well as improving the remaining forest.

If the future regrowth of the forest is part of the management plan, it can be sustainable.

For sustainable harvesting from the forest, products should not all be harvested at the same time. Once an estimate has been made of the growing stock and growth rates, according to this a fixed proportion of the growth can be harvested. This will help to improve the forest without over-harvesting.

Registering a Community Forest

According to the current forest law in Nepal, community forest is given priority for development. The forest user committee is given responsibility for protection of and distribution of products from the community forest. The local community forms the user group to manage all this responsibility.



Bhaisepati Women's Community Forest
Saibu-4, Bhaisepati, 1998

- The community should form a users' committee which can make an application to the District Forest Office.
- Taking advice from the Forest Office and/or related NGOs, the committee should prepare a clear, simple constitution.
- After registering the constitution at the forest office, a forest management plan is made.
- When the plan is approved, the forest is handed over to the community.
- It's a good idea to take advice from related organisations for technical and management advice while managing the forest.

Registering a Private Forest

Farmers' land is often left unused, for example because they do not have the time or other resources to farm it. By planting trees, or by protecting naturally regenerated trees on such wasteland, or even on existing farmland, it is possible to make a private forest.

- Output from the private forest goes to the landowner. When the private forest is registered, these products can be sold or traded .
- To register the forest, the land and its distribution of trees should be described in the application to the forest office.
- The forest office will check your application against what is on the land, then issue you a certificate of registration for the private forest.
- Once the forest is registered, you do not need to go through any other process of registry in order to sell products from the forest.

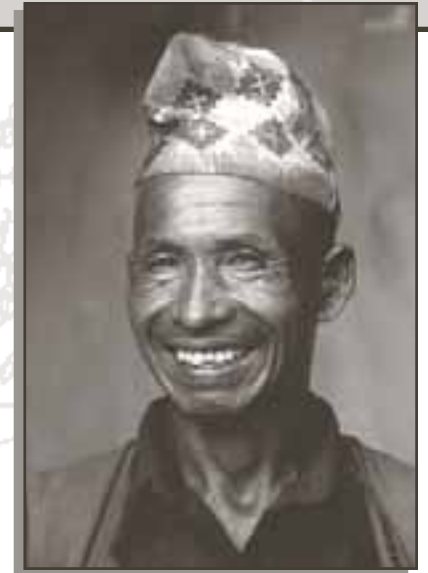


Mr Surya Adhikari of Begnas, Nepal, changed this land from bare ground to a rich, diverse food forest. As well as producing fodder, firewood, etc. for the home, he also produces fruit for cash income.

Farmers' Experience

Mr Ammar Bahadur Gurung

From Nepal, Surkhet district, Gumi - 4, Mr Ammar Bahadur Gurung is the Vice-Chairman of "Longlake Community Forest". Now let's read about his experiences.



Ammar Bahadur Gurung

“ Our local forest was very good up until 1980. After that, people stopped caring. Livestock were let loose into the forest, and people cut wherever they liked. That led to more landslides and floods, and even whole houses were washed away. Then, in 1994 this forest was handed over to the community as Lampokhari Community Forest. It is 9 hectares in area. After making a forest management plan, various rules were made. Livestock aren't allowed in, and the forest is opened twice a year to cut fodder and firewood, which isn't allowed any other time. Each person pays 2 rupees to be allowed to cut a load. Because of laws like this, the forest has grown and developed very well. Dead and badly shaped branches are taken out, and dead trees can be bought and cut for timber. The cash income from sale of forest resources goes into the local community fund. ”



Read On !



Subjects Related to Forest Management

This book provides much of the information needed to help manage your own forest. However, this information is also linked to other methods. For extra benefits let's read, learn and practice from other related chapters.



Soil Conservation and Improvement chapter

Information is given about the nature of soil, how to protect existing soil, and lots of ideas about how to regenerate damaged soil into productive land again.



Agroforestry chapter

Planting trees on farmland can bring farmers many benefits. But you can't plant any type of tree just anywhere. This chapter gives information on how to plant trees without affecting farm yield.



Integrated Fruit Orchard chapter

Information on how to plant fruit trees with various other multi-purpose trees to give more and quicker benefits for less work is given in this chapter.



Living Fence chapter

By planting a fence made of trees, production can be much more than just a barrier. This chapter tells how to make and manage a living fence.

