UNIT 27 FORESTS: ACCESS, CONTROL AND MANAGEMENT

Structure

27.0 OBJECTIVES

In this unit we are discussing the present situation of forests in the country and attempting to understand it by going back to its historical background. After going through this unit, you should be able to:

- describe the situation of forests as it exists today;
- outline the traditional link between the tribal and forests till the First Forest Policy;
- understand and describe the main features of Forest Legislation from 1854 to 1988;

- discuss the role played by industry, revenue and the forest dwellers in the depletion of this resource today;
- discuss the environmental impact of deforestation;
- evaluate the impact of deforestation on the people; and
- suggests possible solutions of deforestation and the alienation of forest dwellers.

27.1 INTRODUCTION

In the previous two units of this block, we talked about the resources of land (Unit 25) and water (Unit 26). Both these resources are vitally linked to the state of forests in the country. As long as we have plenty of forests, we do not realise their importance. It is only after their depletion and its impact on our survival that we begin to pay attentions to the causes and result of disappearing tree cover.

During the last two decades more and more persons in this country have become aware of the serious harm caused to the environment and to the people, particularly the tribals who live, by and large, in and around forests, by massive deforestation in India. The first part of the unit (section 27.2) discusses the state of India's forests today. The beginning of the problem can be traced back to the 19th century when the traditional constructive link (section 27.3) was broken and a new Forest Policy was introduced. With every new step in this Policy, the forest dwellers were further alienated from their life support system till they were declared enemies of the forest (section 27.4). Slowly the people who had till then safeguarded forests, began to destroy them. Forests are thus being depleted and its consequences are felt in the form of soil erosion, floods, droughts etc. (section 27.5). More than that, it has a major negative impact on the people, particularly the communities like the tribals who had traditionally depended on it as a life support system and had established a constructive relationship with it (section 27.6). We shall, in the end, suggest possible solution to deforestation (section 27.7).

27.2 THE SITUATION OF FORESTS TODAY

According to the National Forest Policy of 1952, as well as the one of 1988, the country should have 33 per cent of its land under tree cover, namely, 60 per cent in the hill areas and 20 per cent in the plains. In reality, however, only 22 per cent of the country's landmass or 77 million hectare (ha) are controlled by all the forest departments of the States. But less than half of this area has a tree cover. The rest of it can be described as forests without trees. What is worse, every year the country is losing around 1.3 million hectares of forests and only around 5,00,000 hectares are replanted. At this rate, most of the country's tree cover may disappear within the next 20 years. In this Unit, we want to understand the implication of this situation.

The depletion of forests is attributed to:

- population explosion among the forest dwellers
- shifting cultivation, i.e. slash and burn cultivation
- fuelwood consumption – since around 100 million tonnes of it are used every year
- the industrial orientation of the Forest Policy.

We shall first examine the traditional forest management systems of the forest dwellers and then look at recent policy measures. We will then analyse deforestation within this historical perspective. This exercise will help us to appreciate

a) the gravity of the current crisis in the area of control and management of forests

b) the need for seeking better alternatives for a Forest Policy for India.

INDIA FORESTRY STATISTICS 2000

AREA

Distribution of Geographical Area and Actual Forest cover

State/UT	Geographical Area (sp km.)	Actual Forest cover (Sq. km.)	Actual Forest Cover as % of Geographical area
1	2	3	4
Andhra Pradesh	275068	43290	15.74
Arunachal Pradesh	83743	68602	81.92
Assam	78438	23824	30.37
Bihar	173877	26524	15.25
Goa, Daman & Diu	3814	1255	32.91
Gujarat	196024	12578	6.42
Haryana	44212	604	1.37
Himachal Pradesh	55673	12521	22.49
Jammu & Kashmir	222235	20440	9.20
Karnataka	191791	32403	16.89
Kerala	38863	10334	26.59
Madhya Pradesh	443446	131195	29.59
Maharashtra	307690	46143	15.00
Manipur	22327	17418	78.01
Meghalaya	22429	15657	69.81
Mizoram	21081	18775	89.06
Nagaland	16579	14221	85.78
Orissa	155707	46941	30.15
Punjab	50362	1387	2.75
Rajasthan	342239	13353	3.90
Sikkim	7096	3129	44.10
Tamil Nadu	130058	17064	13.12
Tripura	10486	5546	52.89
Uttar Pradesh	294411	33994	11.55
West Bengal	88752	8349	9.41
A & N Islands	8249	7613	92.29
Chandigarh	114	7	6.14
D & N Haveli	491	204	41.55
Delhi	1483	26	1.75
Lakshadweep	32	-	-
Pondicherry	493	-	-
All India	3287263	633397	19.27

Source: Government of India 2000. Ministry of Environment & Forest.

27.3 TRADITIONAL FOREST MANAGEMENT SYSTEMS

The National Remote Sensing Agency reported in 1984 that India was annually losing 1.3 million hectares (ha) of forests and the end of 1985 it was estimated that India lost 34 per cent of its forest area. Does this mean that India has a vigorous tradition of destroying its forests? Far from it, the fact is that about a hundred and fifty year ago, India was quite green and its tree cover was adequate in terms of ecological balance and the needs of its industry and people. Let us here examine the traditional relationship between forests and the people.

27.3.1 Extent of Dependence on Forests

Such massive destruction of forests has not been the tradition of India. It is estimated that when the first Forest Policy of British controlled India was promulgated in 1854, the subcontinent which then comprised also the present day Pakistan and Bangladesh, had 40 per cent of its territory under tree cover. A hundred years later, when the first Post-Independence Forest Policy was promulgated in 1952, the tree cover had gone down to an estimated 22 per cent. In other words, during the one century, the country had lost tree cover of around 18 per cent of its territory or 0.18 per cent year. Thirty years later, during the Sixth five Year Plan (1980-85), the tree cover of the country was estimated to be around 10 per cent and today it is probably around 9 per cent. In other words, the loss during the first 30 years of planned development was of the order of 12 per cent or 0.4 per cent of the country's landmass per year. One cannot say that the loss of the tree cover has been only because of population increase. Other, probably more important, causes exist and these must be properly listed.

When we go back to the history of forests in India, we realise that before the first Forest Policy of India in 1854, the forest dwellers in rural India in general and the tribals in particular, had developed what has come to be known as a symbiotic relationship between forests and people. Symbiotic relationship refers to the living together, in close association of two dissimilar organisms. In this case, the forests and the people depended on each other. Because of this dependence, most rural populations in India developed a whole series of practices and beliefs geared to preserving the forests and other natural resources. The traditional thinking was that resources such as forests, land and water belonged to the whole community and not to any individual. Every family was allowed to use the resources for its needs. These resources were to be preserved for posterity, i.e. for all the generations to come.

27.3.2 Protection of Ecosystems in Traditional Management

To ensure that forests were treated as a community resource, every rural and forest dweller community in general and the tribals in particular, followed four modes of protection of forests.

i) **Protection of Sacred Groves**

Most tribal and rural communities give evidence of holding certain patches of forest land as special and therefore to be protected. Some ecosystems were identified as special, as such to be preserved from all destruction. Most

communities along the West Coast had such forests. they were called **devaranya** (God's grove) in Maharashtra, **nagaranya** (serpent's grove) in Karnataka, and **serpakkadu** (serpent inhabited jungle) in Kerala. These were considered sacred. As such, no sickle or axe could be used in them. Only fruits that could be plucked or dry twigs that could be broken with one's hands or dry leaves and other material that had fallen down were allowed to be used.

Most tribals in India are known to have preserved three such systems. In Chotanagpur they were known as sarna, sasan and akhara and by other names elsewhere (Gupta, Banerjee and Guleria 1981: 9). Sarna is the place where the teenager boys were traditionally sent for training into adulthood. During these months of training they had to live in the forest and survive on what they could cut or kill with their hands. These young men were considered the future warriors of the tribe and as such provided continuity to it. The sasan was the burial ground in the forest. The ancestors were buried in these places and as such it was the sign of the continuity of the tribe. In many places such as Chotanagpur in Bihar, the tombstone of an ancestor was the only "document" a family required to prove its right to cultivate land in that village. The akhara was the dancing ground, a clearing in the forest, where young men and women met. On the annual festival day known as Dongora-dongari among the Konds of Western Orissa and by other names in other tribes, they chose their life partners, as such, that was the place where the future couples were chosen and children to continue the tribe were ensured (Fernandes, Menon and Viegas 1988: 161-163). Thus, the tribals preserved these ecosystems by linking them to the continuity of the tribe and by declaring them the house of their gods. These practices are, in many cases, a part of totemic beliefs among the tribal groups. To know about what is a totem and what are totemic beliefs, you are advised to read Block 3 of ESO-03 and Block 1 of ESO-05. You are also advised to watch the video programme, **'Religious Symbols'**, prepared for Block 1 of ESO-05. It will suffice here to say that in the world view of many tribal groups certain birds, animals, vegetation, groves, places are linked to the way they conceptualise their social structure. They worship these particular species and therefore also preserve them.

Activity 1

Myths associated with forests are part of each region's folklore. Collect two stories related to forests in your area and show how they reflect the close links between forests and the people.

ii) **Protection of Important Species**

The second methods was to declare some economically crucial trees sacred and ban their cutting. Also some animals that were important for the survival of the tribe were declared sacred. Forest and rural populations in all parts of India, declared peepal (which is a very important medicinal plant), Tulasi, banyan etc. sacred and preserved them. The tribals added a much bigger number of economically important trees to the list, for example, sal, mahua, sahada, salap, etc. Besides, they created myths to link these economically important trees to the origin of the tribe. The Kond tribals of Kalahandi of Orissa believe that when the whole world was sub-merged in water and all the people died, two children survived on a hill and the salap tree gave them its juice and saved them from starvation. From these two children emerged the Kond tribals. As such salap is linked to the origin of all the tribals. The Gonds of Koraput

believe that their ancestors were born from the cow's feet (or god) from which comes the name of the tribe. The Konds of Ganjam speak of the first ancestors coming from **bel** fruit, **sarai wood**, **karela** etc. Hence, all these are declared sacred since they are linked to the origin of the tribe. The tribals are, therefore, told that their tribe itself will disappear if they allow these trees to be cut. Here, it is not out of place to refer to the theories of origin of religion among the primitive people. You may like to read Block 3 of ESO-03 and Block 1 of ESO-05, where under Durkheim's theory to totemism you will read about this very link between flora and fauna and the people.

iii) **Equitable Distribution of Forest Produce**

The third way of preserving the forests and other resources was through rules concerning distribution with justice. There were definite rules governing the use of fuelwood. For example, among the tribals of Dhenkanal in Orissa, every family was allowed to take one headhoad of fuelwood per week and in most of Chhattisgarh in Eastern Madhya Pradesh, every family was allowed one cartload per month. Similar regulations existed also in other parts of India. Every area found its own method of ensuring distribution of forest produce in such a way that everyone's needs were met but the resource was not destroyed by a few persons trying to get for themselves more than their due. Mahatma Gandhi echoed the essence of this culture when he said: "The world has enough for everyone's need, but not for everyone's greed."

Among the tribal communities women played an important role both in use and in the preservation of forests and other natural resources. They controlled the family economy, the work around shifting cultivation and other resources. You can say that they had a bigger vested interest in preserving these resources than men had and this gave them control over much of the decision-making in the family. This indicates also the relatively higher status of women in most tribal societies (Fernandes and Menon 1987: 72-80).

iv) **Appropriate Technology**

Finally, the forest dwellers preserved forests also through appropriate technology. This can be seen, for example, in shifting cultivation which is considered the best form of cultivation for slopes up to 20 degrees where either settled or terraced cultivation is not advisable. The tribals cultivated the highest slopes before the monsoons in such a way that the roots grew and soil was preserved when rains came. After that they would sow other crops in such a way that shifting cultivation provided some food every month from October to March, giving them a balanced diet. They cultivated an area for three years and left it fallow for 18-20 years for forests to grow again. Similar appropriate technology can be noticed in the cutting of trees and bamboos which they did in such a way as to ensure coppicing, i.e. new shoots coming out of the old one without damaging the surroundings (Gadgil 1989: 15-167).

Check Your Progress 1

i) State, in a few line, the extent of India's tree over when the British stated their first Forest Policy in 1854.

.....

.....

.....

.....

ii) What is a symbiotic relationship? Use two lines for your answer.

.....

.....

.....

.....

iii) What is a sarana? Use one line for your answer.

.....

iv) What was the use of a sasan among the tribals of Chotanagpur? Use one line for your answer.

.....

27.4 FOREST POLICY, STATE CONTROL AND DENIAL OF ACCESS TO FORESTS

The ownership pattern with forests as a people's community resource changed to one of State ownership with the first Forest Policy of British controlled India in 1854. The trend has continued also after independence and it is getting stronger now to such an extent that the people who have treated forests for centuries as a community resource are today considered enemies of forests. Why has this happened? That is what we shall try to understand in this section.

27.4.1 Forest Policy and State Ownership

The first feature of the British Forest Policy of 1854 and of the others that have followed till 1988, is state ownership. This is essentially alienation of the communities from forests which they had till then preserved as a community resource. The Forest Policy of 1854 was dictated by the British need for timber mainly as a source of revenue and for ship building for colonial wars in other countries. Later, timber was also required for railway sleepers. They had already destroyed the forests in Britain and in their colonies in southern Africa and needed more timber from India. Consequently the Forest Policy declared forests a national asset. They therefore, ceased to be the life support system of the tribals and other forest dwellers.

Efforts were made to introduce what was called **scientific management** by which was meant getting the highest possible revenue from forests. With this in view, the species that would give revenue were to be planted in preference to those that the people needed for survival. A German, Dietrich Brandis, was appointed the first Inspector General of Forests (IGF), in order to ensure "scientific management". Some village forests were kept apart for the people and the rest were declared reserve forests that belonged to the State. No prior survey was made to people's needs before making this division. In most cases what was left for the people was inadequate to meet their needs. Besides, the people were given some rights in the forests, such as the right to collect flowers, fruits and fuelwood for personal consumption (Gadgil 1983: 166-119).

27.4.2 Conflict Between State and People

With this trend towards State ownership, the foundation was laid for the conflict between the State and the people on the one hand and alienation of the people from the forests on the other. This conflict intensified as the tree cover decreased and the British needed more revenue from forests. This became evident in the Forest Policy on 1897. In this document, what was earlier referred to as **rights of the people** was changed to "rights and privileges". Slowly the rights of the people began to be underplayed and what they required was viewed only as privileges. This approach was enacted into a law in the **Indian Forest Act 1927.** Much more than in earlier documents, it spoke of the forest dwellers as encroachers on State property.

27.4.3 National Forest Policy after Independence

One would have expected this to change with independence, i.e. with Indians running their own country. In reality the, trend has been intensified. The very first Forest Policy after Independence, the National Forest Policy 1952 , changed the terms "right and privileges" to "**rights and concessions**". It certainly spoke about safeguarding people's interests, environmental needs as well as industrial and revenue requirements. But the focus appeared to be on **concessions** rather than on **rights.** This list of rights (known as **nishtar**) remained with the Division Forest Officers and was rarely communicated to the people. What the forest dwellers needed from the forest was thought of as concessions from the State, the owner of the forest. The National Forest Policy continued to favour the industries and manage forests with their interests in focus (Fernades 1988: 88-91). It results were as follows:

i) **Industry and Forest Management**

This trend itself is understandable. Apart from being a source of revenue, national development had industrialisation as its cornerstone. It viewed the natural resources, such as forests and water as a raw material whose productivity has to be maximised. In order to encourage industrialisation, particularly in the backward areas (and forest areas were also backward), industrial raw materials were highly subsidised. For example, in the mid-1970s, in Karnataka a notional tonne (that is 2,400 running meters) of industrial bamboo was sold to the paper mills at Rs. 15/- while the ordinary people paid the equivalent of Rs. 1,200/-. Even in 1981-82, the paper mills in Madhya Pradesh got a four metre bamboo for 54 p. while ordinary people had to pay more than 2/- for it (Fernades, Menon an Viegas 1988: 204-207).

The result is that industrialists got the raw material so cheap that they had no vested interest whatever, in reforesting the area from which they cut bamboo or timber. Moreover, in many cases they gave up the coppicing technology which they considered too slow and expensive. The resource had to be exploited in the most economically profitable manner. So they often resorted to clearfelling, i.e., cutting trees and bamboos from a whole plot at one stroke. Besides, the industrialists began by cutting the trees that were the closest to the village from which the people got most of the produce they needed, since the area was accessible at least by bullock carts. Once the resource close to the village was exhausted, they would move away from the there and keep exhausting tones of bamboo and timber produced in the country (Gadgil 1989: 8-10). India's 175 paper mills consume 50 per cent of the bamboo. The people

are often deprived of what they need. Moreover, 4.5 mha of forest land is estimated to have been used up for building developmental infrastructure such as dams, mines and industries.

ii) **Industrial Clear-felling and People's Impoverishment**

With the clearfelling of forests near their villages the people were gradually deprived of their food and other daily needs. The consequence was their impoverishment. This began a vicious circle that broke the symbiotic relationship between the people and forests. Because of impoverishment the forest dwellers fell into the clutches of the moneylender whose appearance coincided with introduction of the industrialist. As the tribals were deprived of access to more and more forests, their impoverishment and indebtedness increased. Slowly they lost their land to the money lender, became overdependent on shifting cultivation and started to overexploiting their plots. Increased population only added to the problem. As a result of all these factors, the shifting cultivation cycle has come down from 18-20 years 30 years ago to as little as 6 years in Orissa, 12 years in the North-east and 3 years in many parts of Western India. Many tribals now resort to the sale of firewood as the only source of survival, or work as wage labourers under timeber contractors and smugglers (Fernades, Menon and Viegas 1988: 224-230).

One can thus notice that the forest dwellers, particularly the tribals, who had developed a culture of preserving forests while using them for their needs, are today destroying the same resource for survival. Formerly they had what can be called a constructive dependence on forests. Today because of the vicious circle of their impoverishment and indebtedness caused by the industrialists the tribals are deprived of their access to forest products. They are forced into what can be called destructive dependence. In other words, they destroy or overexploit the forest for survival. Before discussing other consequence of this management and control of forests on behalf of industry, we shall study the environmental consequences of this approach.

Check Your Progress 2

i) What were the main British legislative measures regarding forests in India and why were they enacted?

.....

.....

.....

.....

.....

ii) What vicious circle has led to the change of tribal culture due to the national policy on forests? What post-independence measures led to it?

.....

.....

.....

.....

.....

27.5 ENVIRONMENTAL CONSEQUENCES

The above mentioned state of the country's forests has brought about the following environmental degradation.

27.5.1 Depletion of Tree Cover

The first consequence of this vicious circle is depletion of the tree cover which is today estimated to be around 9 per cent of the total area. It has resulted in soil erosion. Trees with large leaves protect the oil from wind, sun and rain. They preserve also the moisture in the soil required to maintain the water table. Studies in Russia have shown a 4 per cent loss in precipitation with 10 per cent reduction change in the tree cover. At distance of 100 meters from a forested area, soil erosion per hectare was 2.1 tonnes. It was 14.6 tonnes at 300 meters and 38.4 tonnes at 600 meters. Hills in the vicinity of Chandigarh were found to be releasing 900 tonnes of soil per year after trees were cut (CSE 1987).

Studies, like those of Madhav Gadgil (1989) of Bangalore, indicate that India loses around 6 billion tones of soil annually. 10 per cent of it is washed out into the sea, 69 per cent is deposited in rivers and the reservoirs of large dams. In the Maithon Dam, Bihar, for example, it was assumed that 1.62 hectare metres (ham) would be silted in every 100 sq. km. But later observation has shown that it is 13.10 ham. In Nazim Sagar it is 6.55 hectare meters against the original assumption of 0.29 (CPR 1985: 6). Similar figures can be produced for all the major dams. Consequently, their life span has probably been reduced by more than half. To this should be added the silting of rivers because of deforestation and soil erosion in the catchment area. The level of the Brahmaputra has risen by 1.98 meters in 20 years and the Ganga by more than 5 meters.

27.5.2 Floods and Droughts

The inability of the soil to absorb water, due to the rise in the river bed and siltation of dams causes massive flooding. According to the National Flood Commission, the flood-prone area of the country has increased from 19 mha in 1960 to 59 mha in 1984. The number of persons affected by flood rose from 5.2 million in 1960 to 15.4 million in 1970. In 1978 as many as 70 million persons were affected. In 2002 more than 100 million persons were affected by flood. To this should be added the damage caused by disruption of communications and from loss of production.

Along with floods, droughts too seem to be on the increase. During the last 30 years there have been three or four drought years per decade in the country as a whole, as against a total of four years in the four decades from 1920 to 1960. Studies like those of the Centre for Science and Environment (CSE 1987) and of India Social Institute (Fernandes 1987), New Delhi, show the situation is worse in the tribal areas where there was thick forest a few years ago. In southern Rajasthan, Saurashtra and Kutch in Gujarat, the Kalahandi district of Orissa and in parts of northern Karnataka and southern Tamil Nadu, there have been 6 to 8 successive years of drought.

The expenses incurred on flood and drought relief keep increasing. During the first Five Year Plan, the country spent as average of Rs. 5.64 crores a year on

it. In the late 1980s, it was around Rs. 1,200/- crores per year. To this should be added money that is spent on reconstructing all the facilities and communication systems that are destroyed by floods. The amount thus spent becomes enormous. This amount could better be spent on people's development.

Activity 2

What is, in your opinion, the most important environmental consequence of degradation of forests. For answering this question, observe your invironment for various consequences of depletion of tree cover and read about it in old newspaper-clippings and other sources of information. You can also discuss the matter with your friends and the IGNOU Counsellor before writing a note of 250 words on this theme.

27.5.3 Deforestation and Rainfall

Some studies like those of B.C. Biswas (1980) in the Andaman and Nicobar Islands, S. Kalitha and S.K. Sharma (1981) in Assam, P.C. Agarwal (1976) in Madhya Pradesh and V.M. Meher-Homji (1988) in the South indicate that there is a link between deforestation and reduced rainfall. More studies are required in this field before reaching definite conclusions. However, most of us do know about the link between trees and rain. This known, in technical terms, as the hydrological cycle. Forests protect and stabilise soils. Rainwater in a forested area is clear and carries only 5 per cent of sediments while in an area denuded of forest the rainwater is opaque and carries 60 per cent of sediment.

27.6 CONSEQUENCES FOR THE PEOPLE

We have already mentioned the change of culture among the people. Those who had treated forests as a renewable resource and had used them in a balanced manner in order to preserve them for future generations, have today started destroying them for survival. They have been forced into this vicious circle by impoverishment and indebtedness. In a study in Orissa (Fernandes, Menon and Viegas 1988), for example, it is found that around 20 per cent of the tribals have lost their land to the moneylender because of impoverishment caused by deforestation. Today they survive through destructive practices. Briefly, people's impoverishment is a major consequence. Many of them are forced by it into destroying forests by overexploiting shifting cultivation plots, or by selling firewood for fuel or by cutting trees as wage-labourers. In the following sub-sections we will discuss some more consequences of the present state of forests on the people.

27.6.1 Migration and Exploitation

In the above mentioned study on the tribals of Orissa and Madhya Pradesh, an enormous increased was noticed in the number of bonded labourers as a result of impoverishment and indebtedness. A large number of them migrate to other States as plantation, construction or road labourers and often are not allowed to return to their families. This has also been seen in studies of migrant labourers in Manipur, construction workers during the Asian Games in 1982 in Delhi and others elsewhere. A recent study in Delhi shows that there has been a major migration of tribals and other forest dwellers to the city slums during

the last two decades because of deforestation and displacement by development projects. They can only become unskilled urban labourers and be further exploited (Fernandes 1990).

27.6.2 Malnutrition, Ill health and Break-up of the Community

Another consequence is the deterioration in the physical condition of the tribals. It has been calculated by persons like Almas Ali (1980) in Orissa that the average daily food intake of tribals like the Konds in around 1,700 calories as against the minimum requirement of 2,400 calories. This loss is the highest in milk, meat, fruits and nuts in which the area abounded before deforestation. As a result of this deficiency, their physical condition deteriorates. Moreover, because of ecological destabilisation, new diseases related to pollution and other factors in environment appear. Besides, for centuries tribals had depended on medicinal herbs that grew in the forests. With deforestation they are deprived of these herbs. The primary health centres are in towns 10-15 km. away. As a result they are unable to visit them except when their illness reaches a dangerous point (Agarwal and Narain 1985).

Shortage of resources leads to competition for them creating conditions for the break up of the community that had earlier enforced the practice of equitable distribution of the forest produce. A few better off persons not merely from outside, but even among the tribals and other forest dwellers, gain for themselves access to a bigger share of the resources than is their due, thus depriving the poor of the little that would have been available to them (Fernandes, Menon and Viegas 1988: 226-227).

27.6.3 Tension with Forest Officials

With the shortage of resources, and the poor being forced to sell firewood for survival, the already bad relations between the forest officials and the people deteriorate further. Greater exploitation of the poor by the forest officials follows: On the exploitation of forest dwellers, Joshi (1983) writes.

> The various kinds of restrictions imposed on the forest dwellers virtually put them at the mercy of the FD (Forest Department) especially lower level functionaries. Illiteracy and poor economic conditions make their situation more vulnerable. Taking advantage of the cold attitude of the officials of the FD the lower levell functionaries, such as forest guards, exploit the local people in the collection of forest produce. For example, in some areas in Andhra Pradesh, the forest guards have their cut (6 paise per rupees) on MFP (Minor Forest Produce) and in some areas the tribals are often made to work without payment. In spite of the rest houses spread all over the block, the forest rangers or high level functionaries could not find it convenient to inspect the area. This is not an isolated instance.

27.6.4 Greater Marginalisation of Women

While all the forest dwellers suffer, the situation of women gets worse than that of men (see Fernandes and Menon 1987). The task of ensuring the supply of food, fodder, water, medicinal herbs and fertilisers remains, traditionally the responsibility of women. But the distance between the forests and the village

increase. In eastern Madhya Pradesh and in Orissa the average distance of forests from the village was around one kilometer in the early 1950s. It went up to around 7 kilometers in the early 1980s. In the Garhwal Himalayas it is more than 10 km. This results is a higher workload for women. When forest was close to the village, children and older women helped the housewife in tasks such as the collection of fruits, flowers, leaves and other forest produce. With the distance increasing, the children and older women are unable to be of assistance. Hence, the housewife has to travel these additional 5-10 kilometers everyday to collect the produce. But despite the additional workload she collects less.

This results in shortage of food. In most tribal communities, the whole family used to eat together. But in the context of these shortages, many tribal communities have introduced the custom of the woman eating last after feeding men, boys and girls in that order. As a result, often the women has to survive with very little food (or none at times) since not much is left over for her.

Activity 3

In your own culture area observe and make a record of all those activities which women carry out and which are related with forest produce. Write a short note of 250 words, analyzing women's access to forest produce and their control and management of these resources.

The situation gets worse during droughts and famines. Formerly, years of shortage could be got over with the help of roots and tubers which were abundant in the forest. With deforestation, the number of drought years has increased and the tubers and roots that were their famine food have disappeared. The mutually supportive community has been weakened. Hence, the housewife has no support in periods of shortage (Fernandes 1987: 433-435)

27.7 POSSIBLE SOLUTIONS

It is from the point of view of the lack of access of the poor to the resources which they need for their survival that one has to look at forest management today to find solutions in favour of the people. Solutions are being attempted in the form of legal action and replanting of forest trees. We will first discuss, in this section, legal action and the Forest Conservation Act and the new forest policy. Then we will consider the measures to plant trees and people's participation in them.

27.7.1 Legal Action

Legal action is an attempt to deal with the reduced tree cover. With the depletion of forests, there is competition from various sectors and pressure on the State deprive the weakest of access to this resource. The first sign of this pressure was noticed in the report of the **National Commission on Agriculture,** (which was formed in 1971 and gave its report in 1976). In volume 9, which is dedicated to forests, the Commission speaks about the diminishing tree cover and states that serious measures should be taken to protect existing forests. The thinking of the Commission seems to be that the forest dwellers are the main culprits. "Fee supply of forest produce to the rural population and their rights and privileges have brought destruction to the forests and so it is necessary to reverse the process" (NCA 1976: 354-355). It, therefore, recommends that

48 million out of 70 million ha of forests should be set aside for industrial needs. It recommends also that State depots should be set up to supply people with their needs and that the forest populations should not be allowed direct access to the forest produce. Following this step, there were set up various committees. Let us examine them more closely.

i) Based on this report, a new Forest Bill was drafted in 1980. It tried to protect forests by

- redefining forest produce to include many more items in the category of MFP (minor forest produce);
- giving the forest officials additional powers to arrest and punish real or suspected offenders of the Forest Act; and
- increasing punishment for offences.

Public opinion prevented the introduction of the Bill in the Parliament. But several committees were formed to study the link between forests and tribals. The first of them was constituted in 1981 by the Home Ministry (which was then looking after tribal development) with B.K. Roy Burman as its Chairperson. While understanding the extent of deforestation, this Committee emphasised the importance of forests in tribal life and reviewed the existing Forest Legislation in the light of this understanding. The Committee recommended that

- the Forest Policy and the system of running forests should be directed to turning them into a renewable resource,
- the individual tribal, the local tribal community and national interest should be the three corners of such a policy,
- it should fulfil needs of ecological security, the food, fuel, fodder, fibre, and other domestic needs of the rural population and raw material needs of cottage, small medium and large industries, of defence and communications.

It suggested the involvement of the people in forest production and regernation and stated that the forest department alone cannot renew the resource.

ii) **The National Committee on the Development of Backward Area** was constituted by the Planning Commission in 1980. Its report, given in June 1981, recognised the importance of forest produce in providing substantial sustenance to tribal communities and the rural populations. It also recognised the exploitative role played by middlemen and the State which viewed forests as sources of income. It stated that the commercialisation of forest produce should be only to ensure the maximum returns to the tribals and other forest dwellers. The Committee felt that creating such a vested interest in the tribals would help them to preserve forests. But the Committee did not respect the tribal community as such which has been safeguarding forests for generations but suggested only dealing with individuals. This would in practice break up the community and so remove the real source of protection besides depriving the weaker among them of access to forest produce. Its predominant view was the same as that of the National Commission on Agriculture which has viewed the people alone as destroyers of forests. Hence, it recommended that the rights of the tribal communities over forest land and forest produce should be reduced.

iii) Finally, in October 1981, the Ministry of Agriculture set up the **Committee for Review of Rights and Concessions in the Forests Areas of India**, with M.S. Choudhury, former Chief Secretary of Madhya Pradesh, as its Chairman. Its reports presented in 1984, begins with the settlement that though the 1952 National Forest Policy had recommended that national interests should be given more importance than individual needs of tribal communities, "the implementation of the policy has not taken place in the desired manner". In its analysis of deforestation the Committee makes no mention of the large scale clearfelling for industrial raw material and only proposes to place further restrictions on the forest dwellers. It states that it should be compulsory for the forest dwellers to protect forests and that their needs should be satisfied mainly through social forestry on 48 million ha of degraded and deteriorated forest areas. It recommends at the same time, using a part of the funds set apart for social forestry, for production forestry (which is meant for industrial needs).

27.7.2 The Forest Conservation Act and the Forest Policy

The Forest Conservation Act was enacted in 1980 to prevent diversion of any forest land for non-forest use. This Act was further amended in December 1988 to make any diversion of forest land without permission from the Government of India a congnisable offence. The forest officials who thus divert land can now be punished with imprisonment for up to 15 days. Secondly, fruits, medicinal and other commercial species are excluded from what are considered forest species. The intention is to prevent industry and commerce from using forest land for commercial plantation in the name of reforestation programmes. However, while enacting this legislation with such a good intention, policy makers do not seem to have been aware of the people's culture. The local populations need for their survival, mainly fruit, fodder, fuelwood and medicinal species. As such, by forbidding the plantation of these species on forest land, the Act not only prevents control by commercial interests, but also deprives the local forest dweller communities of access to the forest produce.

A new forest policy was promulgated in December 1988. This document begins by acknowledging the need to keep a balance between environmental, industrial and people's needs. It also states that there has been a symbiotic relationship between the people and forests and that forests cannot be safeguarded without people's movement.

In India several schemes were introduced to ensure production of fuel wood and fodder and attaining maximum sustained yield of timber for railways, defence, industries and communication. Forests, which were over exploited during world wars, were rehabilitated. In the second and third Five Year Plans commercial planatations for pulpwood were established. The number of sanctuaries and national parks increased over the next two decades.

The Indian National Forest Policy of 1988 gave conservation orientation and a human face to forestry. The policy emphasised the protective role of forests in maintaining ecological balance and environmental stability. The basic objectives that should govern the National Forest Policy were enlisted as follows:

- Maintenance of environmental stability through preservation and, where necessary, restoration of the ecological balance that has been adversely disturbed by serious depletion of the forests of the country.
- Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna, which represent the remarkable biological diversity and genetic resources of the country.
- Checking soil erosion and denudation in the catchment areas of rivers, lakes and reservoirs in the interest of soil and water conservation, for mitigating floods and droughts.
- Checking the extension of sand dunes in the desert area of Rajasthan and along the coastal tracts.
- Increasing substantially the forest/tree cover in the country through massive afforestation and social forestry programmes, especially on all denuded, degraded and unproductive lands.
- Meeting the requirements for fuelwood, minor forest produce and small timber of the rural and tribal populations.
- Increasing the productivity of the forests to meet essential national needs.
- Encouraging efficient utilisation of forest produce and maximizing substitution of wood.
- Creating a massive people's movement with the involvement of women, for achieving these objectives and to minimise pressure on existing forests.

(Balaji, 2001: 3-4).

However, the document makes it clear that what it calls national needs should get precedence over people's requirements. In the tradition of the last several decades, national needs usually coincides with industrial needs. Thus, on the one hand, the document states that every decision should be taken with environmental preservation in mind, and on the other, it gives priority to national needs over people's requirements. Thus, it puts the people's needs last. Moreover, the overall thinking of the document is in favour of State Control over forests rather than genuine people's involvement. For example, keeping in view the recommendations of the **National Commission on Agriculture, 1976,** it suggests State run depots to meet people's needs. Thus, the document seems to have tried to put all the needs together and has in reality ended up by giving much lower priority to the people than the earlier documents had done.

27.7.3 Various Types of Plantations and People's Participation

The other solution that has been thought of is in the form of planatations. Based on the recommendations of the National Commission on Agriculture, 1976, the forest department has been encouraging various types of forestry, particularly production forestry which is meant for industrial needs, social forestry to cater to people's needs, and other such as those meant for soil conservation, wind protection etc. Some of them are discussed here in the following sub sub-sections.

i) **Social Forestry**

Social forestry is meant for meeting people's needs. To be viable, it should

respond to the causes of deforestation which we have mentioned above and solve problems such as the break up of people's communities. All the data at our disposal would indicate that social forestry has in reality become commercial and even production forestry. First of all, more than two thirds of the total area in planted under production forestry. Of the rest which comes under schemes such as economic plantations, quick growing species plantations, rehabilitation of degraded forests and social forestry, it is estimated that around 80 per cent is planted with commercial species and not what the people need though that was the original purpose of these plantations. In fact, speaking at a seminar at the India International Centre, New Delhi, in May 1983, the then Inspector General of Forests, Government of India, acknowledged that 80 per cent species planted under these schemes of social forestry were of the commercial variety and that 80 per cent of them are planted by the 20% of the big farmers and the remaining 20% were distributed among the 80 per cent small farmers (Roy 1983). In other words, neither are the people needs met nor is inequality reduced.

The Conclusion drawn in a study of farm forestry on agricultural land in Gujarat by S.Jain (1988:47) is relevant. Farm forestry is a component of social forestry. Jain writes,

> It is apparent that capitalist agriculture is the main trend in rural development in Gujarat in particular and of India in general, there is no escaping of the fact that the cultivation of forest trees is inevitably based on the rationale of profit-calculations. The market for polewood is then obviously linked with industrial and/or commercial enterprises. This explains why a large farmer with sufficient capital and a better entry into the timber market successfully adopts farm forestry on his agricultural land. On the other hand, due to the lack of capital resources and market information, small farmers face problems both in growing trees and selling timber.

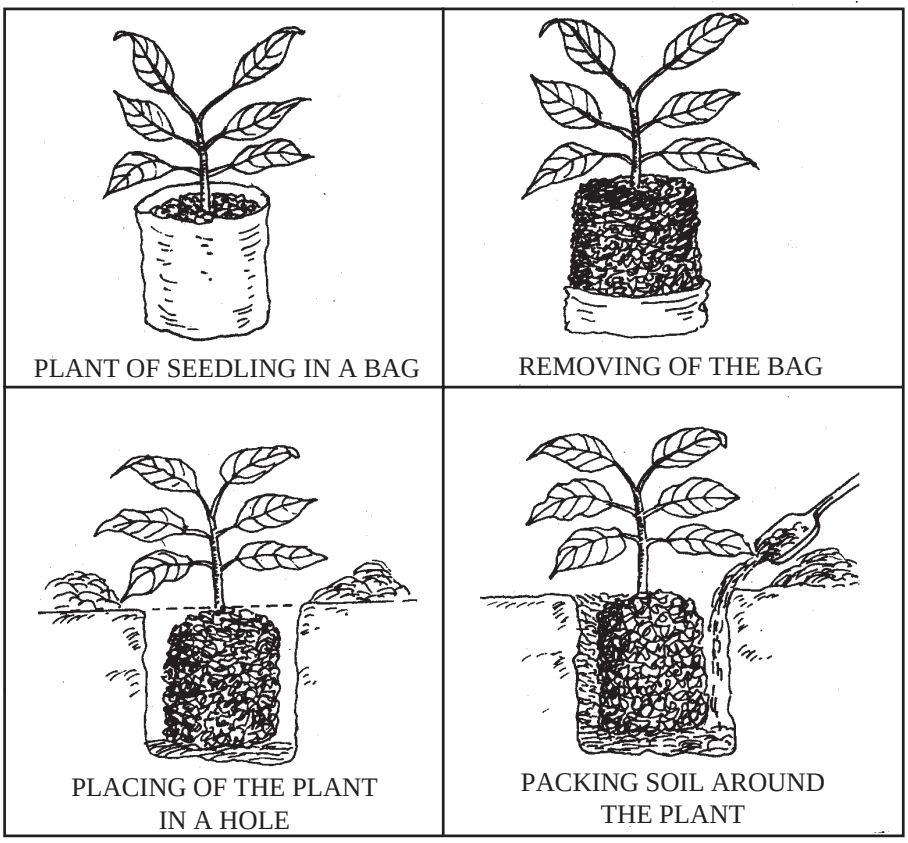
From this perspective, non-cash benefits and ecological gains of farm forestry become subsidiary for the farmers and a kind of alibi in the hands of the government for promoting commercial development of tree plantations.

ii) People's Involvement in Social Forestry

All the decisions on the scheme of social forestry and its components have been taken during the last several years by the forest department or by other governmental agencies with very little people's involvement. Often the local forest dwellers are used as wage labourers and not as decision-makers and in most cases not as beneficiaries of the produce. This goes against the statement that the programme should be turned into a people's movement. In fact, based on this statement of the National Forest Policy, 1988, on June 1, 1990, the Secretary, Ministry of Environment and Forests, Government of India, has sent a circular to the forest departments of all the States. The circular asks them to ensure that the local population gets involved in decisions concerning the afforestation and reforestation schemes. It states that land need not be given out either on lease or in some other form to the people, but that the whole scheme should be one of partnership between the forest department and the people. It states that the people should be involved in decisions concerning the choice of species, arrangement of work and the benefits to be reaped. Based on this the State Governments of Bihar, Orissa and Rajasthan have already

made new rules concerning afforestation schemes, and a few other states are in the process of getting them ready. The educational institutions also need to encourage habits of planting and caring of trees. Practical steps, as shown in the following illustration, are not hard to learn.

STAGES OF PLANTING A FOREST TREE



One would think that afforestation schemes on the part of the forest department are crucial. However, such schemes demand partnership between the forest department and the people, and that is not going to be easy. A major reason for the failure of social forestry is precisely that close cooperation between forest officials and the people could not be brought about. Foresters do not want their power to be curtailed and they think that the people are enemies of forests. The forest dwellers do not trust forest officials and consider them exploiters. Moreover, as we have mentioned above, among the people there has been a transition from constructive to destructive dependence on forests. This has added to the tension between the people and the forest officials.

iii) Role of Voluntary Organisation

These attitudes have to be changed and a constructive attitude towards forests recreated. For this to happen, the people have to have a stake in afforestation schemes. Most existing schemes of the forest department are of the commercial variety. The people get neither food nor income from them. Voluntary organisations can perhaps become the catalysts in this. They can help the people to recreate in themselves a vested interest in forest regeneration and the forest department can given them the technical support they need. These organisations can also relate the real needs of the people in terms of species. This has been proved in the successful schemes of organisations such as Bana Bharati in the Koraput District of Orissa. Harivallabh Parikh's Ashram at Rangpura in Gujarat, several groups in Uttaranchal and elsewhere. These organisations have been

attempting schemes that combine people's involvement with overall environmental regeneration. Many of them speak in terms of watershed management. Such schemes are being attempted mainly in Karnataka and Maharashtra, most of them as partnership programmes between voluntary organisations and people's communities with technical support from government departments. Several groups in Rajasthan are attempting environmental regernation schemes in the form of drought-proofing (see Agarwal and Narain 1989).

iv) **Women's Involvement**

As essential element in these schemes has to be women's involvement as the experience of Chipko and others elsewhere has shown (see Jain 1984). However, a major shortcoming of many of these peoples and voluntary organisations is that they do not easily understand the role of women as an integral part of the community. Often, decisions are taken only by men or sometimes imposed on the people by voluntary agencies. And yet, women have been more instrumental than men in preserving the environment for centuries and they are also bigger suffers of its deterioration than men. As such, their involvement is essential both from the point of view of rebuilding the community that has been destroyed and for genuine long-term recreation of ecological balance.

Activity 4

Find out about the state of the tree cover in your area and possible measures and you can be involved in an attempt to improve it.

Briefly, one would conclude by stating that any environmental regeneration programme should keep people's needs, industrial requirements and ecological balance in mind. These needs should not be treated as those of individuals but as those of communities that have broken up and have to be rebuilt. In this process, special focus should be on the weaker sections, particularly those communities that have suffered the most, for example the tribals and other forest dwellers. Even among them women's role should get special importance.

Check Your Progress 3

i) Describe, in about seven lines, recent legislative measures on forests.

.....

.....

.....

.....

.....

.....

.....

ii) What was involved in the new Forest Bill, drafted in 1980s? Use four lines for your answer.

.....

.....

.....

.....

27.8 LET US SUM UP

In this unit we discussed first the present state of forests in India. We then situated this depletion of tree cover in India in the context of the policies during the last 150 years in general and the four decades of planned development in particular. Going back to the history of forests before the arrival of the British, we noticed that till some decades ago there was what can be called symbiotic relationship between the people and the forests. Because of this mutual dependence, the forest dwellers had developed a culture and tradition geared to keeping a balance between human and environmental needs.

This mutual dependence disappeared when the British turned forests into State property and alienated from the communities that had preserved them for centuries. To the revenue orientation of the British, post-Independence India policy asserted the right of the state to use forests for industrial raw materials. As a result, the tree cover in the country had diminished enormously.

Today there is a realisation that forests cannot be saved without the involvement of the local communities. Solutions are, therefore, being attempted with the people as the major partners. However, various interests work at cross purposes and the policies often go against the people. It is, therefore, essential to experiment with new solutions that can put all these interests together.

27.9 KEY WORDS

Afforestation : Planting a new forest in an area where no forest existed earlier.

Clearfelling : Cutting down trees or bamboos on a whole plot at one stroke.

Constructive Dependence : Dependence because of which the users keep a balance and ensure that human needs are met without destroying the forest (or any other resource on which they depend).

Destructive Dependence : The type of dependence caused mainly by the shortage of a resource or by a profit motive, because of which the user destroys the resource (e.g. forest for fuelwood or industrial' raw material) without allowing it to renew itself.

Ecosystem : An integrated system of crop lands, forest lands, grazing and waste lands- each of these land use components interacting with each other in such a way that when one component it affected, it has an impact on all the others.

Environment : Surroundings that include forests, wildlife, air, water, land etc. on which human beings depend.

Production Forestry : Forestry meant to produce commercial species of timber needed in industry and commerce.

Reforestation : Planting forests in an area that once had forests that have disappeared now.

Shifting Cultivation : Also known as slash and burn cultivation is the form of cultivation on slopes. The existing trees (in most cases only branches) are burn to provide fertilise. The land is then cultivated for two or the three years and left fallow for 18 to 20 years for forests to grow again. In the north-east it is known as **jhum**. In southern Orissa and most of South India it is called **podu**. About 25 per cent of Indian tribals practice it.

Symbolic : A relationship of very close and mutual dependence between two dissimilar organisms as between the mother and the foetus in her womb.

27.10 FURTHER READINGS

Agarwal, Anil and Sunita Narain, 1989. *Greening India's Villages: Strategy for Environmentally Sound Participatory Rural Development*. Centre for Science for and Environment: New Delhi

Fernades, Walter and Geeta Menon, 1987. *Tribal Women and Forest Economy: Deforestation, Exploitation and Status Change*, Indian Social Institute: New Delhi

Fernades, Walter, Geeta Menon and Philip Viegas, 1988. *Forests, Environment and Tribal Economy: Deforestation, Impoverishment and Marginalisation in Orissa*. India Social Institute: New Delhi.

Jain, S. 1988. *Case Studies of Farm Forestry and Wasteland Development in Gujarat*, India. FAO: Bangkok.

27.11 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

i) During 1854, India's (including present day Pakistan and Bangladesh) tree cover comprised 40 per cent of its landmass.

ii) Symbiotic relationship refers to living together, in close association, of two dissimilar organism.

iii) *Sarna* refers to a sacred plot of forest in the rribal village. The young men (teengagers) of the trige were sent to this sacred place for training into adulthood.

iv) The term *sasan* refers to the burial ground among the Chotanagpur tribals. Since the sasan was used for burying the ancestors it was also used as a sign of the continuity of the tribe in a particular area.

Check Your Progress 2

i) One of the main measures of the British Forest Policy was the itroduction of State Ownership of forests. The second measure was the application of scientific managemet' of forest resources. The third measure was the

concept of people's 'right' in the forests. These measures were mainly adopted fo providing timber as a source of revenue to the British government and for ship building for colonial wars in other countries and later for railway sleepers.

ii) The post-Independence Forest Policy continued to encourage the use of forests for industrialisation. At the same time it undermined the common person's use of forest produce. This resulted in the impoverishment of those previously dependent on forest produce for their vital needs. As a result, they turend to moneylenders and found themselves trapped in an unending debt-cycle. This in trun resulted in marked changes in tribal culture.

Check Your Progress 3

i)

	Source		**Benefit**
a)	Large leaves and roots of trees	i)	Soil conservation
b)	Roots and tubers	n)	Famine food
c)	Symbiotic relationship between forests and people	j)	Constructive dependence
d)	Maisture in soil	m)	Water level
e)	Shifting cultivation	k)	Balanced diet
f)	Appropriate technology	l)	Coppicing
g)	Control over family economy	h)	Women Status

ii)

	Causes		**Consequences**
a)	Large leaves and roots of trees desappear	m)	Soil erosion
b)	Siltation	n)	Floods
c)	Industrial clearfelling	k)	Vicious circle resulting in destrutive dependence on forests
d)	ahortage of and competition for resource	l)	Break up of community
e)	Distance of forests	h)	Extra workload for women
f)	Depletion of tree cover	j)	Reduction in rain
g)	Forest near village clearfelled	i)	Food shortage and impoverishment

Check Your Progress 4

i) Recent legislative measures on forests include

a) diversion of any forest land for non-forest use is prohibited;

b) any diversion of forest land without permission from the Government of India is a cognisable offence;

c) afforestation programmes should become a people's needs movenment.

d) social forestry is to be introduced for taking care of people's needs;

ii) The new Forest Bill, drafted in 1980, protect forests by redefining forest produce in order to include many more items in its list. It gave the forest officials additional powers to arrest and punish real or suspected offenders of the Forest Act. It increased punishment for offences.