
UNIT 18 ISSUES IN RESOURCES & ENTITLEMENTS: FOREST PRODUCE

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18.1 INTRODUCTION

For the maintenance of ecological and environmental balance in the country, India should have a minimum of 33% forest cover, according to the National Commission on Agriculture. Of the total land area in India, only about 23% is classified as forest, and only about 12% is under dense forest cover (CSE '99).

The loss of forest cover in India during 1993-1995 was 0.548 million hectares (m.ha.) (State of Forest Report 1997). Madhya Pradesh that has the largest forest cover earlier has lost 0.397 m. ha. & Andhra Pradesh has lost 0.382 m. ha. In Maharashtra, however, forest cover has increased by 0.230 m. ha. India's forest cover reduced from 63.89 m. ha. in 1995 to 63.34 m. ha. in 1997. According to the 1997 forest report published by the Forest Survey of India (FSI), of the total of 0.397 m. ha. forest lost in Madhya Pradesh, tribal areas account for about 0.219 m. ha., in Andhra Pradesh about 0.346 m. ha. of forest in tribal areas were lost; in the Northeast as well, the same trend continues with Assam losing 0.024 m. ha. (@ 7% of its forests).

Several causes are attributed to this extensive deforestation such as – construction of large infrastructure projects like dams, power projects, industries, mining activity, the needs of industry & railways, the

encroachment of agriculture (like for e.g. Jhum cultivation), as well as the increasing needs of a growing population. Besides these reasons, the government policies have also accelerated the process of deforestation leading to a negative impact on women.

The government policies of transferring ownership of forests from control of local communities to the government has resulted in alienating the local communities from the forests around them. The traditional management of forests by local communities for e.g. giving religious meanings to certain trees or areas of forest that prevented their over exploitation was destroyed. For example in the Chota Nagpur area of Bihar, tribals did not allow cutting or disturbance within the sacred forests.

In Nagaland, for e.g., the Ngami Nagas planted and grew a tree in place of every tree cut. In Orissa, the Kondhs of Kalahandi did not fell the Salap tree as according to popular belief the sap of the Salap tree had given rise to two children who had given birth to the tribal race. However, with the changes in government policy with regard to forests, such belief systems broke down. Furthermore the commercialization of forest resources to look after the increasing demands of the industrial sector have resulted deforestation.

18.2 OBJECTIVES

After Studying this Unit, you should be able to:

- Describe the relationship between the women and forest resources and how depletion of forest resources affect the livelihoods of the women;
- Analyze the women's role in forest economy;
- Distinguish the income from timber and non timber sources from the forest;
- Evaluate the effects of depletion of forest resources; and
- Identify the Government and Non governmental organizations' grassroots initiatives with regard to forest regeneration.

18.3 WOMEN & FOREST RESOURCES

In recent years, a lot has been written with regard to women and environmental issues within the development discourse. Discussions have centered around two issues – one is the ecological consciousness of women and secondly the disproportionate impact of environmental degradation on women.

It is quite well established that women play an important role in activities relating to natural resources and thus the degradation of natural resources has an adverse impact on them. Some scholars like Vandana Shiva are of the view that women share a special relation with nature and hence they are better managers of natural resources. Through a well documented and

thorough research on our forests, soils and water systems, Vandana Shiva (1988) shows the effects of development which have destroyed the existing system and adversely affected the availability of food and drinking water and the very survival of people, especially women. She argues that the development policies followed by the government are violent to nature and to women – who are the primary sustainers of society. However, it is important to look critically at the category ‘women’. Bina Agarwal advocates a ‘feminist environmental’ perspective that is rooted in material reality and sees the relation between women and nature as structured by gender and class (caste/race) organization of production, reproduction and distribution.

It is difficult to club all women together, as within the category of women; there is great diversity in terms of rural and urban women, different classes of women, as well as between regions (Mazumdar '99). Hence, the destruction of the environment affects different women differently. Women in the urban environment especially of the middle and high socio-economic group do not show any particular environmental consciousness. In the rural context, however, there is a close association between women and natural resources, particularly among the poor peasant and tribal families. Women, of poor and tribal families, have been responsible for providing food, water, fuel, fodder and in hill communities are main cultivators.

Environmental degradation affects them in very specific ways. Women have developed a special understanding of species varieties and natural regeneration in the course of everyday interaction. This has led them to adopt a more sensitive attitude towards the environment and provide a special perspective on the processes of environmental regeneration (Agarwal '92), which women who are no longer in touch with the natural environment are likely to lose. Hence, the link between women and environment is rooted in their material reality and is structured by gender class (caste/race) based division of labour and distribution of property and power. We will now focus on women's role in the forest economy in India.

18.4 WOMEN'S ROLE IN FOREST ECONOMY

“In non-industrial regions, trees are inextricably woven into the rural and household economies. They are used to provide fuel, fodder, and food. They supply medicine and shade, increased soil fertility, shelter from the wind and protection from the rain. From them women fashion many of the products used in the house – and often enough, the house itself. Perhaps most importantly of all, trees and forests provide many rural women with their only source of personal income.” (Sontheimer '91:67)

In India, a wide range of essential items are gathered by rural households from the forests and the common property resources. These items, that are used for everyday use and sale, range from – fuel, fodder, food, fibre, timber, bamboo, materials for house building and handicrafts, minor forest produce like resin, gum, medicinal herbs, oils, honey and spices. The common

property resources are of critical significance for the poor rural house holds although all rural house holds use the village commons. The poor depend on the commons mainly for fuel and fodder. 91% of firewood needs and more than 69% of the grazing needs are met by the commons. A minimum of 9% to more than 20% of total income is accounted for by village commons for the poor rural house holds. The income inequalities between poor and non-poor house holds are reduced considerably through access to village commons (Agarwal '92).

Forests have played a major role as sources of livelihood especially for tribal populations, providing the basis for shifting cultivation, hunting and gathering of non-timber forest produce. According to estimates, in India over 30 million people depend fully or to a large extent on forest produce for livelihood purposes.

18.5 TREES FOR FOOD & FODDER

Trees are an important source of food, especially in the home gardens of South India. Within around 50 meters of the house one can find trees like – coconut, jackfruit, banana, mango, cashew nut, papaya, jamun, guava, avocado and breadfruit. The fruit and nuts provided by the trees form a part of the regular diet of the local people, as well as a major source of nutrition. Indirectly too, trees in the nearby forests also provide honey, berries, wild vegetables and mushrooms. The collection and processing of these products fall within women's responsibilities.

Trees provide a large portion of a family's diet, directly or indirectly. Even during famine or droughts, they provide food security. They also provide produce when annual crops are yet to be harvested. For e.g. the mango tree provides fruit in the summer months just before the rainy season when crops are being planted. It provides a good source of nourishment.

Since women are aware of the utility of trees on the farm, they take good care of them. In most rural societies, thus women have accumulated the traditional knowledge about food as well as other products that trees provide. Trees in many countries are also valued for the fodder they provide for their domestic animals. Especially when other sources are scarce, trees are a valuable source of fodder as seen in Sudan, Kenya.

During peak times in the agricultural year when labour demand is high, e.g., in the rice transplanting season, fodder trees are invaluable. As in the Himalayas, in the rice transplanting season when demand for labour peaks, then such fodder trees are invaluable. (Sontheimer '91) In Nepal too women are responsible for looking after and providing fodder for domestic animals such as the buffalo. This is a major job since a buffalo needs up to 40 tonnes of grass and leaves in a year. Women also keep poultry, goats, pigs and other small stock that are important for the nutrition of the family. Fodder for these animals is provided largely from the garden and forest produce. For women,

collection of Non Timber Forest Produce (NTFP) and its conversion to saleable commodities is the only source of income, especially those in landless families or those without access to common land.

Check Your Progress Exercise 1

Note: i. Use this space given below to answer the question.

ii. Compare your answer with the one given at the end of this Unit.

1. Discuss the poor households’ dependence on forest according to Bina Agarwal study.

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18.6 TREES FOR FUEL

Collecting fuel-wood has always been considered woman’s work. They locate and fetch more than half of all the wood taken from trees and forests. A study has shown that in Nepal, women and girls together collect 84% of the fuel. Collecting and transporting fuel wood has always been a difficult job. This has been made worse due to fuel-wood shortages. Today women have to walk much farther and spend longer hours collecting fuel-wood than earlier.

The destruction of forests in the Garhwal Himalayas has led to an unbearable situation for women. With the state control of forests and the commercial felling of broad leaf variety of trees, the local women’s work of finding fuel and fodder have intensified. They have to spend longer hours (upto 10 hrs or more) and walk longer distances (upto 10 to 12 kms) to collect fuel-wood. The drudgery of their work as well as other factors has had an adverse effect on women – their life-expectancy is 45 yrs compared to 52 yrs for males. (Sheth’ 85)

Region	Year of Data	Firewood Collection	
		Time Taken	Distance Travelled
Chamoli (hills)	1982	4-5 hrs/day	Over 5 km
Gujarat (plains)	1980	Once every 4 days	N.A.
a) Forested b) Depleted		Once every 2 days	4-5 kms

c) Severely Depleted		4-5 hrs/day	N.A.
Madhya Pradesh (plains)	1980	1-2 times/week	5 km
Kumaon (hills)	1982	3 days/week	5-7 km
Karnataka (plains)	N.A.	1 hr/day	5.4 km/trip
Garhwal (hills)	N.A.	5 hr/day	10 kms
Bihar (plains)	1972	N.A.	1-2 km/day
Rajasthan (plains)	1988	5 hr/day (winter)	4 km

Source: Agarwal, Bina, 1986. Cold Hearths and Barren Slopes: The Wood fuel Crisis in the Third World. New Delhi: Allied Publishers Pvt. Ltd. and Institute of Economic Growth.

Shortages in fuel are also resulting in changes in cooking habits. Foods that require less fuel to cook but are lower in nutritional value are being cooked or sometimes they even miss meals altogether. People also shift to food that can be eaten raw but are less nutritious, or tend to eat partially cooked food or cold leftovers, all of which have adverse consequences. Today, hunger is not related to food insufficiency alone. It can be related to fuel-wood shortages as well (Agarwal '86).

Since women in poor rural households are the main gatherers of fuel, fodder and water, it is primarily their working day that is lengthened with the depletion of forest resources and access to these resources. The various afforestation programs started by the Government, like the Eucalyptus plantations done as part of social forestry schemes also have adverse ecological effects. Eucalyptus plantations are known to deplete the land of nutrients and tend to absorb the surface water, resulting in drying up of water sources thereby adversely affecting women who are the major water collectors.

With the destruction of the natural forests and development of monoculture forests, the material base of women's knowledge regarding the medicinal properties of various plants have also been affected. For e.g. – In India bark of the Tendu tree is used to treat diarrhea and dyspepsia. Its dried flowers are used to treat many urinary, blood and skin diseases (Sontheimer'91). Another important but often ignored use of trees is the provision of shade. Under the shade provided by trees, small children play, while their mothers work in the adjoining fields.

18.7 TREES FOR INCOME

The Non Timber Forest Produce (NTFP) is a major source of livelihood as seen in data gathered from different parts of the country. For example – in Manipur 87% of the population depends on NTFPs as a major source of livelihood. Women play a major role in the collection of NTFPs. In Andhra Pradesh, Bihar, Madhya Pradesh and Orissa poor rural house holds and handicraft industry depend on NTFP. In Andhra Pradesh and Madhya Pradesh nearly 55% of house holds income is from NTFP.

It is estimated that in forest-based industries, women's employment is as high as 90.5%, particularly in small-scale enterprises that use NTFP as raw material. Sal seeds and Tendu leaves that are collected mainly by women are major cash earners. (Kaur '91). Women play a major role in the collection of wood for sale and self-consumption, fodder for their livestock and NTFP for sale as well as domestic consumption. Traditionally, women have been responsible for gathering and hence they have developed a vast store of knowledge regarding forest resources and produce. Due to the many needs of their house hold, women have close interaction with the forests and hence develop a deep knowledge about the many uses of different types of trees like fibres for cloth, mat weaving and basket making. Trees are also a source of food-providing fruits, nuts, berries and roots. Besides this, women also know the medicinal uses of various plants. A majority of the workers who are involved in the NTFP economy are women who gather process and market a wide range of NTFPs.

Women play a major role in the collection and processing of raw materials into useful products. This provides a major source of income for them, particularly for those from landless families. Some of the raw materials collected from the forest that are turned into useful products are – rattan canes for furniture making, fibres for making nets, ropes and mats, bamboo for basket making, tendu leaves for making the cigarette wrappings. In India more than 2.5 million people are involved in the beedi making industry. 90% of the workers are landless woman, who along with children, harvest the leaves, and then roll the beedis.

18.8 THE EFFECTS OF DEPLETION OF FOREST RESOURCES

The decline in the availability of natural resources to the poor is due to a number of inter-related factors. First, is due to the decline in quantity and quality of natural resources. Second, due to the increasing state appropriation as well as appropriation by a minority of individuals for their private use, alongwith a general decline of communal ownership of natural resources. The clearing of forests i.e. deforestation, is also a major problem, causing severe environmental degradation. Some of the important factors leading to deforestation are – conversion of forests to agricultural lands; logging of

timber on a commercial basis; large-scale development, migration and resettlement. Locally, the growing demands for fuel wood, fodder and grazing, as well as forest fires contribute to the loss of forests. Further, the government policies regulating national parks, sanctuaries also affect women adversely.

The depletion of forest resources has resulted in reduced availability of forest products gathered by women. This in turn has resulted in increased time required to get these product, hence increasing women's workload. This has also adversely affected the household nutrition.

Deforestation has led to the diminishing availability of resources such as fuel, fodder and other household products used for subsistence. The diminishing supplies of fuel wood result in increasing time spent by women on gathering fuel. This affects the time spent by women on cooking, nutrition and health of the household as well as contributes to air pollution within the household.

Faced with decreased availability of fuel wood, women are forced to shift to inferior wood for cooking. They also supplement fuel wood with agricultural residues e.g. – dung cakes. Use of agricultural wastes in place of fuel wood results in deprivation of fertilizers for crops. Soils become impoverished and hence farmers do not get the desired yields from their crops.

The diminishing resources also results in taking drastic solutions like cooking less often. Earlier a family would have a hot meal at least twice or thrice a day, but now its reduced to once a day. The nutrition levels within the family fall substantially, traditional diets are changed and intake of raw foods and un-boiled water increases. Shortages in fuel as well as food have caused malnutrition. According to the old saying among rural women, "It's not what's in the pot that worries you, but what's under it". Given the gender biases in distribution of food and healthcare within the household, the decline in intake of nutritious food adversely affects women and children. This has led to higher levels of disease.

Besides affecting the subsistence needs of the family, scarcity of forest produce also affects the income and employment generation activities of women. Deforestation results in job loss particularly for self-employed women. In Orissa deforestation has caused job loss, becoming a grave concern for women. (World Bank 1991)

Since a large proportion of people depend on collection of NTFP as their main source of income, deforestation has resulted in a shift from self-employment to wage labour e.g. the basket weavers of Orissa were pushed out of their traditional livelihoods due to the scarcity of 'mueva' grass. This forced the woman to work as agricultural labourers. (CPSW '92) Incomes of house holds have been directly affected by a decline of items gathered from the forests and common lands.

Furthermore, the extra time spent on gathering, reduces the women's time

available for crop production. This adversely affects the income from crop production of hill communities where women are the primary cultivators due to high male outmigration in the region. For eg, – A study in Nepal showed that the time spent on firewood collection had increased due to deforestation. This in turn had resulted in reduced time for crop cultivation leading to a fall in the production of maize, wheat and mustard. (Agarwal '92) which are cultivated mainly by women. Gradually with the depletion of forest resources, the sources of livelihood are eroding. More and more women are selling firewood to earn a meager income. Thus depletion of forest resources are directly affecting women's sources of livelihood.

The relationship of forest dwellers with the forests is not just economic but also symbolic. The songs and stories of origin are intimately linked with the forest. Thus large-scale deforestation has led to the destruction of a whole way of thinking and living. The earlier social support network on which women could depend in times of need has been totally eroded. This has affected the widows and old people most.

Women had developed knowledge systems over the years in relation to the nutritional and medicinal properties of plants, roots and trees. Dependence of families on forest resources gathered by women and children during famines and droughts were of critical importance. This knowledge about nature and agriculture has been acquired by women in the process of their everyday life. However, gradually, this knowledge of women has been undermined and devalued. Furthermore with the degradation of natural resources women's knowledge is slowly declining.

18.9 GOVERNMENT AND GRASSROOTS INITIATIVES

Recognizing that environmental degradation is leading to a crisis in society, the government has tried to take steps to mitigate the situation. However, the government efforts have been piecemeal rather than comprehensive. The government has tried to tackle the problem of deforestation and shortage of fuel-wood by taking up tree plantation schemes. The government has taken up the schemes by encouraging the village communities as well as individual farmers to plant more trees. The government itself has taken up planting activities. It has encouraged this through its various schemes like – “farm forestry” i.e. individuals grow trees on private land and sell it on maturity; “Social Forestry” i.e. planting of trees to meet community needs of fuel and fodder on government or community land. These schemes are funded mainly by international aid agencies.

However, most government schemes have not been very successful. These schemes have failed mainly due to the government's emphasis on mono-cultural plantations mainly for commercial use. These plantations have replaced natural mixed forests; taken over common land that the local

populations used for other purposes. The top-down approach and involvement of women only as caretakers of tree nurseries, with no decision making powers in the schemes, (Agarwal '92) have been major drawbacks.

Women, however, have not only been victims of environmental change, but also the agents of change. There has been increasing resistance to environmental destruction by the local communities taking to non-violent resistance as in the Chipko movement in the Garhwal Himalayas and the Appiko movement in Uttara Kannada district of Karnataka, the Narmada Bachao Andolan in Central India, the Koel-Karo Project in Bihar and so on. Women were actively involved in the Chipko movement. They expressed their value of forests in a poetic dialogue with foresters thus –

Foresters: What do the forests bear?

Profits, resin and timber.

Women: What do the forests bear?

Soil, water and pure air

Soil, water and pure air

Sustain the earth and all she bears

Thus women recognize the importance of forests. They recognize that forests cannot be reduced to trees for commercial use alone. They recognize the interconnections and interdependence between vegetation, soil and water as well as between nature and human sustenance.

These grassroots environmental movements call into question the existing development paradigm. They point to the fact that women, given their social roles and responsibilities, are more dependent on the natural resources for survival and sustenance of the household. Hence, women who are directly dependent on nature for their survival are adversely affected by the destruction of nature. It is these women who are more likely to participate in environmental conservation movements.

Check Your Progress Exercise 2

Note: i. Use this space given below to answer the question.

ii. Compare your answer with the one given at the end of this Unit.

1. Define Non Timber forest produce and write short note on its relationship with livelihoods.

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18.10 LET US SUM UP P

In this Unit, we started discussing the relationship between women and forest with help of study carried out by Bina Agarwal and the Vandana shiva. According to their study, the destruction of the environment affects different women differently. In India, a wide range of essential items are gathered by rural households from the forests and the common property resources. These items, that are used for everyday use and sale, range from – fuel, fodder, food, fibre, timber, bamboo, materials for house building and handicrafts, minor forest produce like resin, gum, medicinal herbs, oils, honey and spices. A study has also shown that in Nepal, women and girls together collect 84% of the fuel. After discussing how forest depletion affects women’s live and livelihoods, lastly this Unit discussed the government and non government efforts of reforestation.

18.11 UNIT END QUESTIONS

1. Discuss Government and Non Governmental organization initiatives with regard to forest regeneration with the help of suitable Indian examples.
2. How societal activities depleting forest coverage? Analyze

18.12 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise

1. The poor depend on the commons mainly for fuel and fodder. 91% of firewood needs and more than 69% of the grazing needs are met by the commons. A minimum of 9% to more than 20% of total income is accounted for by village commons for the poor rural house holds. The income inequalities between poor and non-poor house holds are reduced considerably through access to village commons according to Bina Agarwal in her study in the year 1992.

Check Your Progress Exercise 2

1. The Non Timber Forest Produce (NTFP) is a major source of livelihood as seen in data gathered from different parts of the country. For example – in Manipur 87% of the population depends on NTFPs as a major source of livelihood. Women play a major role in the collection of NTFPs. In Andhra Pradesh, Bihar, Madhya Pradesh and Orissa poor rural house holds and handicraft industry depend on NTFP. In Andhra Pradesh and Madhya Pradesh nearly 55% of house holds income is from NTFP.

18 .13 REFERENCES AND SUGGESTED READINGS

Agarwal, A., S. Narain & S. Sen (1999) CSE. The Citizen's 5th Report Part I- Natural Overview edition

Agarwal, Bina,(1986). Cold Hearths and Barren Slopes: The Woodfuel Crisis in the Third World. New Delhi: Allied Publishers Pvt. Ltd. and Institute of Economic Growth.

Agarwal, Bina,(1992)'The Gender & Environment Debate: Lessons from India', Feminist Studies, Vol. 18, No. 1, Spring, pp, 119-158.

CPSW '92. Women and Environment: Impact of Environmental Degradation on Rural women: Case Studies from selected villages of Orissa Bhuvaneshwar Women Development Council. Council of Professional Social Workers.

Kaur, R.1991. 'Women in Forestry in India: Policy, Research and External Affairs', Working Papers Women in Development World Bank, Washington D.C. Sal seeds and tendu leaves, that are collected mainly by women, are major cash earners.

Mazumdar, V. 1989 Peasant Women organize for empowerment: The Bankura Experiment New Delhi CWDS.

Sheth M.C. 1985. 'Indian Women in Defence of Forests' in Women and the Environmental Crisis: Report of the Workshops on Women, Environment and Development, Nairobi, 10-20 July '85. Nairobi, Environment Liason Centre'.

Sontheimer , S.1991. Women and the Environment: A Reader- Crisis & Development in the Third World. Earthscan Publications Ltd. London.

World Bank. 1991. Gender + Poverty in India and World Bank Country Study. Washington D.C. World Bank.