

## SCENARIO OF FOREST RESOURCES IN INDIA

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### ABSTRACT

Forests provide an array of benefits to human societies above and beyond their pivotal roles as habitat and environmental regulators in natural ecosystems. These benefits are often described as resources that people can draw upon for fuel, lumber, and recreational or commercial purposes. The perception that forests provide resources for people has been a prominent factor in spurring efforts to preserve forests. Forests cover almost a third of the Earth's land area, half of which – two million hectares – is in warm regions. Natural and planted forests have a major social, economic and ecological impact on a global level, for the planet, and also on a national and local level for individual countries, firms and people. If a forest is cut down, energy stored in the wood is lost and also most of the nutrients of the system are lost. Such deforestation leaves a poor soil which can support agriculture for only a short time, because the harvesting of the first few crops removes the remaining nutrients and renders it useless. Deforestation causes soil erosion. The reduction of forests later affects rainfall and thereby restricts the availability of a most important natural resource, the rain water. In natural forests, the tree roots bind the soil and about 90 per cent of the water falling on the forests is retained either in humus or in the plant tissue. The forest thus acts as a soaking device and plays a vital role in the hydrological cycle. It has been estimated that in India 60,000 million tonnes of top soil is carried away annually by rain water from deforested area. Now-a-days the tendency of deforestation is increasing day by day. Man is cutting forest to get temporary benefits but there is a tremendous loss in due course of time.

**Key Words:** Pivotal, Habitat, Prominent, Deforestation, Nutrients, Temporary etc.

### Introduction

Forest is an important natural resource. It is most important natural habitat for wild life. It is also utilized by farmers for commercial and recreational purposes. Many herbivores find shelter and carnivores their prey in the forest. Besides this, forest plays most important role from

commercial point of view. Forest based cottage industries, such as bee-keeping, bamboo mat and basket making provides small-scale industry to the tribal people. Sal is a most important source for timber industries. It also provides raw materials for pulp and plywood industry. Green plants of the forest are food-producing organisms and are primary producers of the 'food chain'. These foods are stored in the form of fruits, nuts, seeds, nectar and wood. Therefore, forest serves as an energy reservoir, trapping energy from sunlight and storing it in the form of a biochemical product. Forest plays a most important role in keeping the atmospheric balance by consuming CO<sub>2</sub> and releasing O<sub>2</sub>, the latter which is essential for animal life. So removal of plants and trees would disturb the composition of natural air. An acre of forest absorbs four tonnes of carbonic acid gas and recycles eight tonnes of oxygen into environment.

## **2. Objectives of the Study**

1. To study the concept of Forest Management.
2. To study the types of Forest Resources.
3. To study the importance of Forest Resources.

## **3. Methodology of the Study**

The present study has been descriptive; the data for this study were obtained from secondary sources. The secondary data has been collected from various references which already existed in published form; part of the paper is based on literature review the method comprising of collecting all the available papers relating to the theme and selecting relevant papers/books for the review purpose. Selection of the paper is done on the basis of their relevance and contribution to the body of knowledge. The author has made an attempt to do primary reading of the selected papers which will constitute the core of this review study

## **4. Concept of Forest Management**

Good forest management is essential to supporting and balancing stakeholders' needs while protecting the sustainability of forests and their goods and services. But while decisions are made by local, regional, national and international institutions, policies and practices at one level may not always integrate with those at other levels. Forest management is vital for commercial forestry. Woodland is an essential ecosystem's part: it provides clean air and water, is home to wild animals, and contains resources that we consume every day. Many people get the impression that this natural environment does not require human intervention. So, here is a

question: why is forest management important for commercial activity? Without it, woodlands deteriorate and lose the qualities necessary for production purposes. In neglected form, such an environment is favorable for diseases and insects. There is also the danger of overpopulation, resulting in an increased rival for nutrients, water, and light. Woodland fires pose a severe threat to the environment, animals, and people. Landowners can maintain the optimal state of the ecosystem with the help of forest management. Modern technologies make this process even more efficient.

## **5. Types of Forest Resources**

### **i. Wood Energy**

In large tropical African cities such as Kinshasa, Niamey and Ouagadougou, wood is primarily an energy source, used for cooking. It comes mainly from traditional village plantations. Today, large steel manufacturers are using charcoal instead of coal and investing in eucalyptus plantations, notably in Brazil.

### **ii. Timber**

Timber also comes principally from natural forests, but it can also derive from planted species such as tropical pine, teak, eucalyptus and mahogany. Many types of tropical wood have a high value for their use in constructing wood frames, for furniture and for parquet flooring and are traded globally.

### **iii. Paper pulp.**

Planted forests are the major source for paper pulp because industrial manufacturers need a graded and homogenous product. Some 30% of the world's paper pulp comes from eucalyptus plantations. The annual consumption of paper and cardboard is approximately 60kg per person (and 170kg in France). Consumption is increasing by approximately 3% a year. It is impossible to meet this demand using only natural forests.

### **iv. Fruit, leaves and branches.**

All parts of the tree are useful. Thin branches are used in wickerwork. The leaves are eaten as vegetables or used in sauces such as baobab leaves, for example, which are rich in calcium. When grass is sparse at the end of the dry season, the leaves and pods from numerous trees, such as those of *faidherbia*, supplement the diet of cattle. Bark is used to make ropes and materials, and is often a component of medicines. Sap is also useful. *boswellia* sap, for example, provides incense, some acacias produce gum arabic and *hevea* produces latex which can be

transformed into rubber. Vitellaria fruits provide shea butter, well known for its nutritional and cosmetic uses. Cola nuts have tonic effects.

#### **v. Forests which heal**

Between 40% and 70% of current medicines are either created from or synthesized from natural substances, lots of which come from tropical forests. Tropical forests are still of keen interest for pharmaceutical researchers. In the Amazon, andiroba seeds (*Carapa guianensis*) contain oil with anti-mosquito and healing qualities. The trunk of the copaiba (*Copaifera reticulata*) provides an oleoresin with powerful healing qualities, including antiseptic and anti-inflammatory properties.

### **6. Importance of Forest Resources**

Forests play a critical role for the global environment, population and economy. Besides alleviating the effects of climate change and natural disasters, they represent some of the richest biological areas on Earth. They also provide food, renewable raw materials for many of our products, and livelihoods for millions of people.

#### **i. Climate change and natural disasters**

Forests can mitigate climate change. By capturing and storing carbon, forests remove significant volumes of carbon dioxide from the atmosphere. A tree will continue to store carbon after it has been harvested and used – furniture and wooden homes can store carbon for hundreds of years. That is why it is so important to use wood-based products. Sustainably produced wood and paper-based goods are a wise, renewable and environmentally friendly choice compared to other materials such as plastics, which alone, use 4% of the total global oil production. Similarly, energy production from forest-based wood and biomass can replace other more greenhouse-gas intensive products, such as oil and coal. Forests also influence nature's capacity to cope with natural hazards, acting as barriers against heavy rains, flooding and strong winds. They help control or reduce the risk of soil erosion, landslides and avalanches. Forests therefore have an important role in protecting the homes and communities (FAO) of animals and people, and they help to maintain the environmental conditions needed for agricultural production.

#### **ii. Biodiversity**

Biodiversity is a term used to refer to the diversity of life on earth. Forests are among the most biodiverse ecosystems on the planet and are home to about 80 percent of the world's land-based animals and plants (FAO). Thanks to their presence and interaction, ecological processes

such as pollination, seed dispersal and soil fertilization can take place. Biodiversity forms the basis of many of the values and services that society derives from forests, including food, fibre, biomass, wood and shelter for people and wildlife.

### **iii. Water and soil**

Forests play a key role in the protection of the world's water resources and in the global water cycle. Much of the world's drinking water comes from forested areas, and millions of people depend on high-quality freshwater flowing from forests (FAO). Forests absorb water as direct rainfall from the atmosphere and through their roots from the ground. Through a process of evapo-transpiration, they then re-release water to the atmosphere. Without this process, a key part of the global water cycle would be interrupted, resulting in increased drought and desertification. Through stabilization of soil, forests minimize erosion and reduce the impairment of water quality due to sedimentation. Woodlands protect water bodies and watercourses by trapping sediments and pollutants from other up-slope land uses and activities. Forests also help to maintain nutrient cycling in the soil. Soil contains a myriad of organisms, such as earthworms, ants, termites, bacteria and fungi. This soil biodiversity helps regulate pest and disease occurrence in agricultural and natural ecosystems, and can also control or reduce environmental pollution. "Forested watersheds supply 75 percent of the world's accessible fresh water for domestic, agricultural, industrial and ecological needs"

### **iv. Indigenous people and social issues**

Forests have numerous social benefits, ranging from indigenous peoples' rights to contributions to sustainable livelihoods, rural development, and local employment. Forests contribute to the livelihoods of some 1.6 billion people worldwide, including 60 million indigenous people who are fully dependent upon them. Fuelwood and charcoal are the main sources of energy for an estimated two billion people around the world. Two billion people also rely on traditional medicines from forests for their health. Forest-based activities such as hunting and fishing provide over 20% of household protein requirements in developing countries. Non-timber forest products such as fruits, vegetables and mushrooms are important components of the diet in rural areas, especially for poor households or during times of food shortage.

## **7. Conclusion**

Forest Resources in India relate to the distinctive topography, terrain, wildlife, climate and vegetation of the country. Forest resources in India have always been one of the richest

resources. Forests provide renewable natural resources and contribute considerably to the economic development of the nation. Forest plantations comprise a vital part of the forest resources. Most of the wood produced in India is obtained from the forest reserves. The forest resources of the country are ancient in nature and composition, since the nation was once covered with dense forests. The history of forest resources in India is evident in the ancient texts all of which have some mention of these forests. The people honoured the forests and a large number of religious ceremonies focused on trees and plants. A forest is a natural, self-sustaining community characterized by vertical structure created by presence of trees. Trees are large, generally single-stemmed, woody plants. Forest can exist in many different regions under a wide range of conditions, but all true forests share these physical characteristics. Because a forest is a natural community, no forest is static in time. That is, because forest communities respond to outside influences, most forests are in a state of constant flux. Depending upon the systems within which forest communities exist, such factors might include rainfall, fire, wind, glaciations, seismic activity, flooding, animal activity, insulation, and so on. At any time, a forest is a collection of past responses to outside influences and internal competitive interactions. Therefore, the present status of any forest, indeed of any natural community, reflects what has gone on before.

## **8. References**

1. <https://eos.com/blog/forest-management/>
2. <https://www.studyiq.com/articles/forest-resources/>
3. [https://www.indianetzone.com/40/forest\\_resources\\_india.htm](https://www.indianetzone.com/40/forest_resources_india.htm)