

# Human Impact on Forest Resources

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This paper discusses in detail all possible human pressures in the reserve areas, human influence in the Region are very diverse and can be both positive and negative for the reserve Forest Resources. Forest Resources of Flora and Fauna of the Region loss can be irreversible. its consequences uncertain and the environmental values that are lost are so difficult to assess and often unknown. However, caution in resource use is hardly an attribute of modern society today. Thus management of the current biological diversity crisis will require fundamental changes in our economic environmental and social relationships.

## **Causes of Forest Resources Loss :**

### **Threats :**

Over harvesting, heavy traffic, pollution, eco-system fragmentation and outright eco-system destruction and degradation.

### **Disturbances :**

Indeed, ecologists now believe that highest levels of diversity in terms of numbers of species present in a locality occur in a community with moderate levels of human intervention rather than in a biological community totally free of human disturbance. This is because disturbance can create more heterogeneous environmental regimes permitting not only species favouring less disturbed conditions to persist but also making room for other species thriving under more disturbed conditions. This does not mean that disturbance is wholly favourable to diversity.

Rather it plays a negative role in the protected areas. Drastic human disturbances often depress levels of diversity of life. Forest Resources of Flora and Fauna of the Region is simply the wealth of life on earth, the millions of floras, faunas and micro-organisms. the genes they contain, and the intricate ecosystem they help build into the living environment. Forest Resources of Flora and Fauna of the Region is simply the end result of four billion years of evolution. Biological diversity is therefore, the diversity of life itself. The problem of managing Forest Resources of Flora and Fauna of the Region is fairly straight forward conceptually. Biological diversity is generally used to describe the variability among living organisms and the ecological complexes of which they are a part. Without this variability in the living world, ecological system and functions would breakdown. With detrimental consequences for all life including humans.

Consequently as Forest Resources of Flora and Fauna of the Region is essential to survey the basic ecological services and resources necessary to maintain human welfare and even existence, then a minimum level of Forest Resources of Flora and Fauna of the Region is required to sustain the well-being of not only current but also future generations. This implies that biological diversity conservation does not require complete preservation of all species in the world or an immediate moratorium on all uses of the environment including eco-system conservation. It suggests that we must ensure that current rates of Forest Resources loss do not take humankind beyond the minimum threshold level necessary to sustain human welfare and even existence. The real questions facing ecologists today centre on how much Forest Resources of Flora and Fauna of the Region and particular ecosystem needs to remain functional, self-sustaining and life supporting. Conservationists have long arrested that every specie counts to some degree in keeping the earth's life-support system working. Organisms were not designed by natural selection to fill slots on an assembly line; each organism strives to make a living and reproduce itself. But as it eats, grows. Excretes waste and moves about, disturbing the physical environment. it unwillingly plays a part in generating grander processes that alter the flow of water, the recycling of energy and materials. the renewal of the atmosphere.

## **Human Influences on Forest Resources :**

Throughout history humans have influenced and altered Forest Resources of Flora and Fauna of the Region in many ways. In many regions Forest Resources has increased through the Flora and Fauna. Human activities have traditionally

supported the maintenance of species and genetic Forest Resources. For example, shifting cultivation systems throughout the world have had a profound effect on Forest Resources. In the cultivated areas a high diversity of Flora and Fauna was generally maintained, whereas the fallow fields provided productive Eco-system and feeding grounds for many non-domestic species. With the increasing population pressures and the development of modern agriculture, the sustainable use of Forest Resources of Flora and Fauna of the Region has lost its role in these systems. This trend has rapidly led to the destruction of local and regional Forest Resources in agricultural systems and marginalized natural vegetation and Floras and Faunas as a natural resource.

The Region has a rich and varied heritage of Forest Resources, encompassing a wide spectrum of eco-systems. The most obvious threatening factors are those that alter eco-systems of species, introduce new exotic species, over-exploit species and eco-systems, and change environmental conditions. Many of the causal factors impacting Forest Resources are demographic, cultural, and socio-economic. The establishment of protected areas can compensate some of these aspects. The comprehensive analysis of plausible linkages between the societal developments (i.e., the causes of Forest Resources of Flora and Fauna decline), the subsequent resources use and its consequences for ecosystem functioning and Forest Resources of Flora and Fauna is more than just describing an alarming trend of Forest Resources of Flora and Fauna decline.

#### **Adverse Impacts of Human Activities :**

The Forest Resources of the Region is impacted adversely by human activities in many different ways such as eco-system destruction, over harvesting, mining, environmental pollution, subsistence use of rare Flora and Fauna, introduction of alien species, and uncontrolled tourism activities. Human population pressure is considered an important underlying cause of species over-exploitation and eco-system Forest Resources loss. Relationship between humans and Forest Resources at the Semi-Arid Jhunjhunu Region is quite alarming.

The exponential growth of the human population, making humans the dominant species on the planet, is having a grave impact on Forest Resources. This destruction of species by humans will eventually lead to a destruction of the human species through natural selection. The human impact is taking place through five primary processes: over harvesting, alien species introduction, pollution, eco-system fragmentation, and outright habit destruction.

Today, the reserve is managed by the state wildlife department. The reserve management imposes a number of restrictions on villagers forest use, intended to ensure non-degrading use practices.

1. Cultivable wastelands, common property lands belonging to the village Panchayat (local council).
2. Uncultivable wastelands, formally owned by the state revenue department, but de facto used by villagers as part of the commons.
3. Temple lands, small forest patches preserved for religious reasons.

Cultivable wastelands were allocated in the (1950) to villages in proportion to their livestock population at that time. Since then, livestock populations have increased manifold and village commons are insufficient for meeting grazing requirements. Interestingly, even in the complete absence of de jure rights in the reserve, villagers operate un-demarcated in the domains of influence within the reserve from where they extract forest produce for their day-to-day needs. This all is leading to, destruction of eco-system due to grazing of the cattle; with drawal of water below critical limit that leads to water-crisis in the protected area personnel and people conflict; increasing population of people and the livestock: unsustainable tourism; increasing traffic on ways that cross-cross : poaching of faunas for various purposes and fuel wood and fodder collection by villagers. Sharp implements are prohibited inside the reserve. It is allowed to collect dry and fallen wood, but it may only be head loaded, that is, motor and fauna-powered transportation of forest products is prohibited. There are restrictions on where faunas can be grazed. Commercial forest products including timber, fuel wood and fauna manure cannot be exported out of the reserve.

This is an attempt to be commercial exploitation of the reserve. While conceding to villagers subsistence needs. Enforcement of the restrictions on resource use is weak. grazing; encroachment and export of forest products appear to be rather widespread. A number of forest guards patrol the reserve. They can impose fines and register court cases against offenders. The villagers are facing problems because of constant cattle lift by wild faunas. The villages are deprived of all

development activities. Because of remoteness very few teachers are willing to serve in the villages. The educational standards are very poor.

#### **Eco-system Destruction :**

Destruction of eco-system for all kinds of purposes, including agriculture, mining, construction of roads, clearing of forest for agriculture and pasturing is probably the most important threat to Forest Resources of Flora and Fauna of the Region. Forest Resources of Flora and Fauna of the Region will continue to decline as long as we continue to remove and constrict the natural eco-systems in which wild species live. This loss is bound to be costly, because natural ecosystems provide vital services to human societies. Recreational, aesthetic, and commercial losses will be inevitable. The loss of wild species, therefore, will bring certain and unwelcome consequences, because it is linked directly to the degradation or disappearance of ecosystems.

A forest is cleared, it is not just the trees that are destroyed; every other Flora and Fauna that occupies the destroyed ecosystem, either permanently or temporarily (e.g., migrating birds), also suffers. Any loss of natural eco-system can result in only one thing: a proportional reduction in all populations that require that eco-system.

The recurrent conflict with the villagers on the matter of grazing in the Region has alienated the villagers from the forest authorities. There is an ever-increasing threat by the villagers and their cattle. The forest is severely getting overgrazed and exploited for extraction of fuel wood and other forest produce.

The grazing pressure is all dependent on the forest. The grazing settlements have major source of income to be dairy and rearing of goats. The other villages have revenue lands for agriculture. Though this land is not a part of the Region land but over harvesting leads to ground water depletion. The forest authorities are making for ground water retrieval, but the situation is not improving. Natural landscapes generally have large patches of eco-system that are well connected to other similar patches. For the continued survival of any natural population, the number of individuals must never fall below a critical number and that requires a certain minimum area. If development reduces the eco-system to a point where it cannot support the critical number during an adverse year. When a forest is managed for the production of few or one species of tree, tree diversity obviously declines, and with it so does the diversity of a cluster of Flora and Fauna species dependent on the less favoured trees. Streams are sometimes channelized their beds are cleared of fallen trees and rimes, and sometimes the stream is straightened out by dredging. Such alterations inevitably bring on a loss of diversity of fish and invertebrates that live in the stream.

#### **Fuel-wood and Fodder Collection :**

Over harvesting, over cultivation or over exploitation of natural resources in the Region is a major threat to Forest Resources of Flora and Fauna. The village outside and inside the reserve pose severe biotic interference so far their needs of fuel wood and fodder collection are concerned. The conflicts are intensifying every year because of excessively higher population growth rate and the changing traditional lifestyles of the people. *Anogeissus pendula* constitutes more than 90 percent of the requirements of the human and livestock population ranging from firewood to timber and fodder in the villages. The maximum consumption of wood is during winters. Villagers and the townships are heavily dependant on forest for the firewood. Women and girls collect fuel wood used for cooking and heating of water and rooms from the Reserves and village commons. Crop residues, dried fauna dung and wood from trees on the farm provide additional sources of domestic energy. Fuelwood is mostly collected in the winter season where demand for domestic energy peaks, while demand for agricultural labour is low, reflecting the importance of the opportunity cost of time.

#### **Mining :**

Mining has been one of the earliest occupation of man and naturally in India, which has been the cradle of oldest civilization. It has had a theory of tradition dating back to the pre-historical times when minerals and their mining were one of the most potent and is of state craft. Even in the present industrial age, minerals play an initial role in the generation of internal resource and industrial growth. As an integral part of mining operations, there is always a need to clear the trees and jungles in the mining areas that are to be exploited for their extraction of the two mining operations (opencast and underground). Open cast mining operations cause serious land degradation in the form of vast tracts of dug quarries and

mountains of overburden, and the waste piles in hilly terrain often affect the stability of the slopes. To control adverse effects well in time, no mining plan is approved now unless it has an environmental management plan properly designed and framed. Modest-sized stone mines are located in the periphery of the reserve, but none were found within the reserve border. Mines tend to be located on state-owned revenue lands. Although local people in some cases benefit through employment in the mines, they also incur losses due to reduced commons and blocked paths. Mines have an adverse ecological impact.

Sometimes they block access routes to the reserve for Floras and Faunas and livestock and frequent dynamite blasts scare away Floras and Faunas. In an article in *The Hindu*, March 26, 2003, 'Implement ban on mining activities in reserved areas', it is mentioned that the environmental investigation agency, an international non-governmental organisation, has called upon the Prime Minister to ensure implementation, in letter and in spirit, of the resolutions of the Indian Board for Wildlife, prohibiting mining activities within 10 km of reserved areas, to protect the rich wildlife of the country.

#### **Commercial Trade :**

Commercial trade of Forest Resources of Flora and Fauna of the Region as well as in products derived from these is also a severe threat to Forest Resources. Demand for medicinal florals in the state can never be satiated. Unspecified and unknown quantities of produce are harvested from the forests, which is a serious threat to the sustainability of the resource base.

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