

ASSIGNMENT  
ON  
ENVIRONMENTAL STUDIES

TOPIC: FOREST CONSERVATION WITH  
REFERENCE TO ZHAWAME STUDENTS' UNION  
RESERVED FOREST, LOKHRO, ZHAWAME, PHER.

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Forest conservation is the practice of planting and maintaining forested areas for the benefit and sustainability of future generations. The conservation of forest also stands and aims at a quick shift in the composition of trees species and age distribution.

Forest conservation involves the upkeep of the natural resources within a forest that are beneficial to keep both humans and the environment. Forests are vital for human life because they provide a diverse range of resources: they store carbon and act as carbon sink, produce oxygen which is vital for existence of life on the earth, so they are rightly called as earth lung, help in regulating hydrological cycle, planetary climate, purify water, provide wildlife habitat, reduce global warming, absorb toxic gases and noise, reduce pollution, conserve soil, mitigate natural hazards such as floods and landslides.

However, at present, forest cover is depleting rapidly due to many reasons such as an

expansion of agriculture, timber plantation, other land uses like pulp and paper plantations, urbanization, construction of roads, industries, constitutes the biggest and severe threat to the forest causing serious environmental damage.

Thus, there is need of public awareness of the strategies for the conservation of forest and awareness to people, which plays a vital role for maintaining a proper balance of environment.

### Importance of forests conservation

Forest plays vital role in preventing global warming and building sustainable societies. So the need to protect and develop them can never be stressed enough. Forests have a variety of functions, including land conserving, securing of water sources, control of climate change, and creation of natural environs essential to human existence. The law gives new values to these

"multifunctional" forests with a view to achieving harmony between them and society.

According to the report, domestic log prices have dropped to one-third of their peak of 30 years ago. The average annual income from forestry was only 2,60,000 in fiscal 2000. Forests cover 70 percent of the land, one of the highest rates among the developed countries. The relationship between forest conservation and global warming deserves special attention, forests play a great role as an absorber of carbon dioxide.

The government should also improve the improve the vertically divided administrative system so it can take an integrated approach to forestry development, environmental protection and tax reform. Another challenge is to set rules for the shared roles between the central and local governments, and between private companies and volunteer groups. Reviving forests and villages

is a grand undertaking that requires the long-term, broad-based participation of communities and people across the country.

### Steps that should be taken for conservation of forests.

Conservation of forest is a national problem so it must be tackled with perfect coordination between forest department and other departments. People's participation in the conservation of forests is of vital importance. So, we must get involved in this national task. The cutting of trees in the forests must be stopped at all costs. Afforestation or special programmes like Van-Mahotsava should be launched on grand scale. Celebrations of all functions, festivals should precede with tree-plantation. Cutting of timber and other forest produce should be restricted. Grasslands should be regenerated. Forest Conservation Act 1980 should be strictly implemented to check deforestation. Several centres of excellence have been

Setup and awards should be instituted.

Several methods to conserve or to save forests.

a. Chipko movements, the people's movement to save  
the forest of Tehri Garhwal 2003, which became famous all over the world as the symbol of people's action in preventing the destruction of environment. Chipkomean's 'to cling to' or 'to hug tight'. The vision of women hugging the trees and daring ~~the men~~ men to cut them. It remains one of the celebrated environmental movements of the world to save forests.

b. Conservation of forest through the fear of gods  
is protected by the local deity. It may even have a temple or a sacred grove. It could be just a few trees or a whole forest. No tree or plant is cut here, no animal or bird is killed and no form of life is harmed. The sacred groves of India are a unique traditional institution devoted to the conservation of forests and biodiversity.

### c. Acts for forest conservation.

The forest conservation Act 1980 was enacted to help conserve's country forests. It strictly restricts and regulates the de-reservation of forests or use of forest land for non-forest purposes without the prior approval of Central Government. To this end the Act lays down the pre-requisites for the diversion of forest land for non-forest purposes.

### Conservation Methods.

#### i. In-situ conservation

In-situ conservation involves conservation of species in their natural habitat, in places where the species normally occur. The natural surroundings or the entire ecosystem is protected and maintained so that all the constituent species, known or unknown are conserved and benefited. It is not about isolating a few individuals of the species, create artificial



habitat for their maintenance, feed them and provide a mate for their reproduction. We simply have to eliminate factors which are detrimental to the existence of species concerned and the rest is left to the nature which takes care of its own. Examples of In-situ conservation, National parks, Sanctuaries, Natural Reserve or Biosphere Reserve.

#### ii. Ex-situ conservation

Ex-situ conservation involves maintenance and breeding of endangered plants and animals species under partially or wholly controlled conditions in areas like zoos, gardens, nurseries and laboratories. Wild animals have always to be alert and compete for food, water and space. Plants growing in wilderness experience equally difficult living conditions. Human care eliminates the stresses which living organisms experience in natural habitats and provide conditions necessary for a success

life and breeding. A modern zoo has to go beyond visual experience of seeing a wild animal to include breeding of endangered species as a conservation measure.

## Threats of biodiversity.

### i. Habitat loss

Man has begun to overuse or misuse most of these natural ecosystems. Due to this unsustainable use of resources, once-productive forests and grasslands have been turned into deserts and wastelands have increased all over the world. Wetlands have been drained to increase agricultural land. These changes have grave economic implications in the longer term.

### ii. Human-wildlife conflicts

The loss of species occurs due to the destruction of natural ecosystems, either for conversion to agriculture or industry, or by over-extraction of their resources, or through pollution of air,

water and soil.

Natural resources are being deforested for timber and replanted using teak, sal or other single species for their timber value. When excessive firewood is collected from the forest by cutting the branches of trees, the forest canopy is opened up and this alters the local biodiversity. Foraging cattle retard the regeneration of the forests, as young seedlings are constantly trampled.

### iii. Over-exploitation.

The ever-increasing human population pressing on the fringes degrades forest ecosystems, and the not-so-subtle daily encroachments gradually decrease the buffer zones and the forested areas.

This is a major factor to consider in evaluating the quality of the ecosystem. Repeated fires started by local grazers to increase the growth of grass ultimately reduce regeneration

and lower the diversity of plant species.

#### iv. Exotic Species

Exotic species are known to adversely affect the native species through factors like:

- competition for food and space, predation
- habitat destruction.
- transmission of disease and
- parasites.

#### v. Poaching

Poaching is an illegal trafficking and killing of wildlife. Sometimes animal or plant parts are sold as trophies or "folk medicines" and sometimes they are sold as pets or houseplants. With more tigers kept captive than living wild, the scope of poaching can not be overstated.

Maintaining Earth's biodiversity is critical as we rely on it for ecosystem services, which makes life possible. To have any hope of reversing this, poaching must be stopped. A variety of wild plants as well as real or sometimes dubious medicinal values are being over-harvested.

Forest Conservation at Khavame Students'  
Union Reserve Forest Lokaro (local dialect)  
Khavame, Phet.

Lokaro (local dialect) at Khavame village was reserved ~~at~~ as Khavame Students' Union reserved forest decade back by the village council. The forest at Lokaro which is about 4-5 km away from the village has been taken overcharge by the Students' union.

The Students' Union being an educated apex body, took so much interest and had been encouraging on planting of trees year after after year. On every World Environment Day, 5th June, the Students' Union practice the culture of transplanting trees in and around the reserved forest.

As per the source, a total of 200 alder saplings was planted in the year 2014. And 250-300 alder saplings was transplanted in 2015.

In the year 2016, the union planted some 100-120 saplings.

The local union encourage more on planting alder tree because the fertility of land is found more when alder trees are grown. Moreover, the alder tree seems to grow fast enough in around 6-8 years comparing to oak and cherry trees which takes longer period to grow.

In 2017, the union had agreed to clear the weeds and unwanted grasses, cleaning the surroundings around the planted trees along with transplanting around 50 alder saplings.

In 2018, the union with the interest to maintain the beauty of Kapamodzei valley had planted the cherry saplings till the entrance of the valley numbering to 300 cherry saplings.

The union came up with a strong resolution to imposed penalty to those defaulters involving in illegal practices such as hunting, collecting of medicinal plants, burning forests and cutting of trees for wood poles.

After trees are planted every year, however, due to ingrown unwanted grasses and plants, the planted trees are covered and most of the saplings are died off and another factor is that, due to coldness and freezing in winter, the saplings can't grow.

Table 1.1. Planting of trees

Year	Alder Trees	Cherry Trees
2014	200	
2015	250 - 300	
2016	100 - 120	
2017	50	
2018		300



## Steps taken to forest conservation (Lokesh).

i. The union took up transplanting saplings every year (5<sup>th</sup> June).

ii. Restriction on burning of forest whereby tax defaulters is penalised a sum of Rs 10,000.

In case, he/she knowingly acted against it, the defaulters may be excommunicate along with fine.

iii. Strict restriction on collection of medicinal plants and herbs, hunting of birds and animals.

iv. Ban on cutting of trees for wood worms for its delicacy.

v. No organisation or individuals is granted the rights to cultivate in this forest to protect the forests and maintain eco-friendly environment.

### Steps to be taken

As per the sources and observation, I as a concern member would like to add a few steps in forest conserving (towards the area) reserved forest.

1. To cut short of cutting more trees for them cultivation because the area villagers still practice jhum cultivation (cabbage and potatoes) a lot which on the other hand yielded the income of the villagers, at the same time tonnes of trees are cut down.

2. I would like to appeal the ZSU to encourage or usage of LPG subsidy and reduction of firewood.
3. To facilitate and hands on collection of birds egg by the younger generation (kids).  
If this act is neglected, the Union of any individuals violates the very principle of Forest Conservation Act, 1980.
4. To breath good air, we need to plant more trees. It is advised to plant trees in one's own land as well.
5. Special attention must be alerted during the time of reproduction of birds and animals for sustainable development and to increase its number species.

Today, in every corner, our environment is being destroyed and the resources are being overexploited at an individual's hands, which is detrimental in our near future. With a rapid rise in human population and urbanisation, the forests are being cleared at a greater speed.

The loss of forest cover, coupled with increasing release of carbon dioxide and other gases through industrialisation, contributes to the greenhouse effect leading to global warming (melting of ice-caps).

In conclusion, to protect our environment, environment management has been an urgent need as there is an alteration of environment due to development. It is every individual's rights to preserve and conserve our environment for ~~a~~ to attain a sustainable development.