

Raniganj Girls' College

Course Name: Environmental Studies

Course Code : AEE 101

Topic of the Project: DEFORESTATION AND ITS EFFECTS

A Project Report

Submitted by Semester-I Students

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This is to certify that SATARUPA KAR

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-:ACKNOWLEDGMENT :-

I wish to express my gratitude to all my friends, people, involved in the completion of this project I am thankful to my ENNS teacher D.K sir for all time and knowledge with me. I would also like to thank my parents who helped me the most in the completion of the project. And finally my deepest gratitude to my friends for their untiring emotions during the making of the project.

Date → 09/03/2022

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-: CONCLUSION :-

Deforestation of Sunderban can lead Sunderban can lead serious Conseqeue like sea level rise biodiversity loss, Extinction of different species and it will directly effect the economy. to save this forest His very important to identify the existing problems along with the reasons behind it the study conducted provides some historical data that show the various degradation sectors and also shows people's perception on how and at what degree the Sunderban is getting destroyed. We recommend in this paper to provide researches with true data for analysis and promote in depth public participation for conserving this mangrove forest.

What is Deforestation?
 Deforestation refers to the decrease in forest areas across the world. It is not just the removal of trees but also the loss of biodiversity, soil fertility, and water resources. Deforestation is primarily caused by human activities such as logging, agriculture, and urbanization. The UN's Food and Agriculture Organization estimates that around 1.3 billion hectares of forest have been lost since 1990.

The causes of Deforestation: Why is Deforestation happening?
 Multiple factors, either of human or natural origin, cause deforestation.



Natural factors like droughts and fires can also contribute to deforestation. Human activities such as logging and agriculture are the primary causes of deforestation. The loss of forests leads to a decrease in biodiversity, soil erosion, and the release of carbon dioxide into the atmosphere.

1. Agriculture is the number 1 cause of deforestation (80%). Why is deforestation happening? According to the FAO, agriculture is the main driver of deforestation. This includes the conversion of forests into cropland for food production and the clearing of land for livestock grazing. The loss of forests for agriculture is a significant threat to the environment and biodiversity. Deforestation for agriculture is a major cause of deforestation, leading to the loss of biodiversity and the release of carbon dioxide into the atmosphere. Deforestation for agriculture is a major cause of deforestation, leading to the loss of biodiversity and the release of carbon dioxide into the atmosphere.



Since years, we have been witnessing various peoples' movements in order to save the forest cover of the nation. Some of these movements include the Chipko movement and Bishnoi movement. The Chipko movement attended to the environmental problems of the Alaknanda area in the Western Himalayas. It came into existence with the motive to save the Himalayas from destruction, and movement demanded that the forest produce should belong to the locals.

The Bishnoi movement took place in Rajasthan. It was led by Amrita Devi, and around 363 people sacrificed their lives in order to protect their forests. It was the first movement that developed the strategy for hugging the trees, which was later taken upon by the people in the Chipko movement.

At the same time, efforts to stop deforestation using more ecological management using more ecological underway through, UN initiatives and workgroups, and national governments such as New Zealand's

Deforestation in India, Causes and Effects:

In general terms, deforestation is a very simple context which means the cutting simple context which means the cutting down of trees. Another lay man's definition is 'the reduction of the forest at any point of time would be considered as deforestation'.

The clearing of forests happens due to several reasons: for the sake of agriculture, for the requirement of wood, paper and pulp requirement, requirement for mechanisation, etc.

Today, we have in total seven nations in the world which contribute towards almost 60% reduction in the forest. These seven nations include Brazil, U.S.A, Indonesia, Congo, Russia, Canada, and China.

Globally, India ranks 10th in terms of forest cover. According to a forest survey, in the year 2019, the forest cover of India was 23.67% which was 0.12% more than the forest cover recorded in the year 2018.

Table of contents:

- importance of forests
- cause of deforestation
- consequences of deforestation
- forest policies in India

Consequences of Deforestation :

Climate Change : The level of greenhouse gases in the atmosphere is rising because of deforestation. When the forest cover was more, it significantly helped in taking in the Carbon Dioxide from the air and releasing oxygen.

Decreased Biodiversity : Because of deforestation, a lot of creatures are losing their habitats, causing conflict between man and animals. We see various wild animals entering localities because there are no forests in which they could reside.

Economic Loss : The forests are a major source which generates revenue and creates employment. With a loss in the forest capital, the country can witness a potential loss in its future.

Social Consequences : Deforestation causes the traditional lifestyles of many people to change.

The tribes residing in the forested areas have to undergo displacement as their livelihoods are put in danger with the cutting down of trees. With the moving out of their ancestral land, their quality of lives is also endangered.

Forest policies in India :

The forest conservation act of 1980 regulates the use of forests for non-forest purposes. The government of India has created many forms of restriction on various sectors regarding their use of forest products.

In 2001, following the orders of the Supreme Court, Compensatory Afforestation Fund and Compensatory Afforestation Fund Management and Planning Authority (CAMPA) was established. According to this Act, the loss of the forest area is compensated in order to maintain sustainability. This act also ensures that if a company is using the forest land for non-forest purposes, then it must provide for an alternative land where afforestation can take place. The payment for the same should also be incurred by the same company.

Importance of forests

- more than 31% of the land is covered by the forests.
- A lot of ecosystem services are provided to us by the forests. These ecosystem services include purifying the water, purifying the air, conserving the soil, etc.
- Around 80% of the world's land species reside in the forests.
- It plays a very important role in lessening the intensity of climate change as it sinks carbon via the process of photosynthesis.
- It plays a very important role in lessening the intensity of climate change as it sinks carbon via the process of photosynthesis.
- The global economy is directly linked to the forest. more than one billion people are directly dependent on the forest for their livelihood.
- Forests provide us with several socio-economic benefits, like, extraction of food, purification of water, wood products, and several medicinal products.
- Forests protect the watershed from soil erosion.

Cause of Deforestation:

Agriculture: With the growing population, the needs of the people also grow. As a result, more and more people are turning towards agriculture in order to meet their needs. certain areas in the eastern India practise shifting / Jhum cultivation in which the lands once cultivated, can longer be used for forestation.

overgrazing: A lot of trees are being stripped in order to provide fodder to the livestock. this leads to a removal of vegetation in those depletion takes place.

forests into farmland, pastureland, or mining spots, under this broader perspective, how can we stop deforestation?

A Broader perspective: How can we stop Deforestation?

Apart from people's individual contributions to stop deforestation, from a political and systemic perspective, other more direct and hard-on actions approaches can be taken:

1 - Fighting illegal logging and limiting logging in old-growth forests;

2 - Protecting forested areas by creating laws and policies that ensure forests are kept protected and restored and betting on land practices such as wildfire corridors;

3 - Reforming trade agreements, starting to value differently products obtained through deforestation, and creating incentives for the use of sustainable forestry certifications such as FSC; certifications such as

4 - Educating local communities and tourists about the need to protect forests and develop and enroll in ecotourism activities.

What Are people Doing to stop Deforestation?

What is being currently done to stop deforestation? Efforts to replant deforested areas are taking place every day, unfortunately, some replanting is done with the goal of quickly growing trees to be exploited in the short-term by the logging industry. These often consist of monotypic plantations (less resilient, more appealing to harmful environmental management practices) such as eucalyptus or pines. This is no small effort: there are 0.8 billion km² of these plantation on earth, according to FAO.

Locals then have to make one of two choices. They can decide to abandon "their" land and migrate to abandon ~~land~~ somewhere else, voiding conflict and embracing the challenge of a conflict and embracing the challenge of a new different life. or they can stay and work for the companies exploring it in remote plantations—often getting unfair wages and working under inhumane conditions. In some countries like Mexico, plantations' owners are often forced to share their profits with local cartels to keep their families safe and to avoid having their crops burned.

Related: Is Avocado production sustainable? The social impact of cartels in avocado production

3— Deforestation for food may lead to food insecurity in the future:

Today, 52% of all the land used for food production is moderately or severely impacted by soil erosion. In the long term, the lack of healthy, nutritious soil can lead to low yields and food insecurity.

4.— Soil erosion is one of the consequences of deforestation. Deforestation weakens and degrades the soil. Forested soils are usually not only richer in organic matter, but also more resistant to erosion, bad weather, and extreme weather events. This happens mainly because roots help fix trees in the ground and the sun-blocking tree cover helps the soil will become increasingly fragile, leaving the area more vulnerable to natural disasters such as landslides and floods.

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Introduction: Deforestation is the permanent woodlands destruction of indigenous forests and woodlands the from does not include the removal resulted in the reduction of indigenous forests to 41% for their pre-agricultural area.

Deforestation is a problem that is caused largely by greed and want for property, money and possibly status. In many parts of world the forest is taken for granted as a replenishable resource when it is the problem is that the tree cannot be grown and replanted at the rate of which they are being cut down. For this reason the forests are declining at an incredible rate and there is no way to see a future from places like the Amazon which remained untouched for 20000 years and now could be destroyed in less than a human's life time.

Deforestation is a problem with ~~for~~ with ~~for~~ reaching consequences resulting from a barren lands ease to a higher carbon dioxide levels in the air. that we have to gether to stop the destruction of the worlds wood lands and forests.

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10075

both to rise livestock but also to grow its (soy-based) food.

2. Deforestation caused by New construction (~15%)

The construction of human infrastructures has also been driving deforestation. more specifically, 10% of deforestation can be attributed to New infrastructures that serve the current human lifestyle in four main ways: Transportation, transformation and energy generation. on one hand, roads, rails, ports or airports have been built to move all sorts of goods — from cereals and fruits to spices, minerals or fossil fuels — either directly to trade centers or to transformation sites. so what at first there were only fruit, so trees, roads soon arrived to allow transporting fruits to other, roads soon arrived to allow transporting fruit to other regions. And while some goods were and are collected manually, others such as coal, oil, natural gas, biomass, but also meat, dairy or spirits, required the construction of large extraction, transportation and/or transformation infrastructures.

3. How urbanization is causing Deforestation (~5%)

The population shift that is leading people to move from rural areas to urban areas is also contributing to deforestation (5%, according to FAO). This urban growth — in which 68% of the world's population is expected to live in cities by 2050 — is leading to an exponential growth of housing and consumption sites, and as cities become larger so they can host more people, they challenge the natural boundaries surrounding them, often leading to deforestation, this is one of the reasons why deforestation is happening.

Deforestation Effects — How Does Deforestation Affect The Environment?

Deforestation has many consequences for natural ecosystems and it poses serious problems to the resilience of the planet. Let's take a look at the main effects of deforestation to better understand why it is bad for the planet.

1. The Effects of Deforestation on Biodiversity

The most known consequence of deforestation is its threat to biodiversity. In fact, most veritable hubs of biodiversity, from mammals to birds, insects, amphibians or plants, the forest, is home to many rare and fragile species.

80% of the Earth's land animals and plants live in forests.

By destroying the forests, human activities are putting entire ecosystems in putting entire ecosystems in danger, creating natural imbalances, and putting life at threat. The natural world is complex, interconnected, and made of thousands of inter-dependent species and among other functions, trees provide shade and colder temperatures for animals and smaller trees or vegetation which may not survive with the heat of direct sunlight. Besides, trees also feed animals with their fruits while providing them with food and shelter they need to survive.

2. The Effects of Deforestation on Local people and their Livelihoods

Healthy forests support the livelihoods of 1.6 billion people globally, one billion of whom are among the world's poorest, this means there are many people depending on forests for survival and using them to hunt and gather raw products for their small-scale agriculture for their small-scale agriculture for processes. But in developing countries such as Borneo, Indonesia, Vietnam, Brazil or Mexico, land tenure systems are weak, this allows big businesses them for other ends, disrupting local people's lives.

What Is Deforestation, Definition, Causes :

What is Deforestation :

Deforestation refers to the decrease in forest areas across the world that are lost for other uses such as agricultural croplands, urbanization, or mining activities. Greatly accelerated by human activities since 1960, deforestation has been negatively affecting natural ecosystems, biodiversity, and the climate. The UN's food and agriculture organization estimates the annual rate of deforestation to be around 1.3 million km² per decade.

The Causes of Deforestation: Why is Deforestation happening :

Multiple factors, either of human or natural origin, cause deforestation. Natural factors include natural forest fires or parasite-caused diseases which can result in deforestation. More often, human activities are among the main causes of global deforestation. According to Food and agriculture organization (FAO), the expansion of agriculture caused nearly 80% of global deforestation, with the construction of infrastructures such as roads or dams, together with mining activities and urbanization, making up the remaining causes of deforestation.

1. Agriculture is the Number 1 Cause of Deforestation (~80%)

Why is deforestation happening? According to the FAO, agriculture causes around 80% of deforestation, and how does agriculture cause so the much deforestation? According to the same report, 33% of agriculture-caused deforestation is a consequence of subsistence agriculture - such as local peasant agriculture in developing countries.

Commercial or industrial agriculture (field crops and livestock) cause around 40% of forest loss - in the search for space to grow food, fibers or biofuel (such as soybeans, palm oil, beef, rice, maize, cotton and sugar cane). It is also particularly interesting to note livestock is believed to be responsible for about 14% of global deforestation. The main reasons why have to do with the large areas require

Deforestation in Africa :

Africa is also a large area suffering from deforestation, in fact, it experiences more deforestation than Asia; about 2 million hectares of forest disappear each year in Africa. In Nigeria, for instance, over 90% of forests were lost because of practices that started in the colonial era. Woodcutting of forest reserves and the development of cocoa and palm oil plantations are among the main causes of deforestation in Africa, together with land clearing for mining activities.

What Animals are Affected By Deforestation:

unconventional production practices that illegally take down trees and use dangerous chemicals threaten forests and wildlife. In this way, exploiting crops such as palm oil, wood, coffee or avocados has side effects that affect the environment and the surrounding ecosystems. It's estimated that the Earth's biodiversity is going extinct at 1% or approx. 200 species per day, every year. Some of the animals under greatest threat are:

- orangutans — especially in Indonesia, Malaysia, and Borneo
- Elephants — Especially in Sumatra and Borneo
- Indonesian tigers — the last surviving ones are struggling to do so on the island of Sumatra.
- many reptiles, amphibians and other vertebrates in Haiti

How can we stop Deforestation? Solutions to Deforestation

How can we stop deforestation? According to OECD the human population is expected to continue to increase and reach over 9 billion people by 2050. At the current rate of consumption, and with more people inhabiting Earth, the need for more space to grow food and extract natural resources is only likely to tech development such as artificial foods. As the demand for food or raw materials like cotton or minerals increases, so does the need for

5- Deforestation Affects and contributes to climate change:

Deforestation also has a very strong contribution to climate change. Why? Let's remember trees absorb and store CO₂ throughout their lives. If we speak about tropical forests, they hold more than 210 gigatons of carbon, according to WWF. And what's worrying is that the destruction of these trees has two big negative side-effects.

Firstly, taking down trees means they'll release back into the atmosphere the CO₂ they were keeping. Secondly, fewer trees available means reducing the planet's overall ability to capture and store CO₂. Both these effects negatively contribute to the greenhouse effect and to climate change. As a matter of fact, while food and agriculture account for 24% of greenhouse gas emissions, deforestation is estimated to be responsible for 10-15% of all anthropogenic CO₂ emissions.

- Related: Does planting trees really help fight climate change?

Deforestation in video

Where is Deforestation Happening? Countries most impacted by Deforestation:

Around the world, deforestation occurs mostly in the tropics where there are different types of forests: from wet and hot rainforests to others that lose their leaves in the dry season and become woodlands. Some parts of the world have lost forest area due to deforestation while others have seen their forestal area decline.

According to FAO's report, 6 million hectares of land were lost from forest to agriculture since 1990 in the tropical domain. These changes significantly differ, but there are 3 important world wide examples of deforestation: the Amazon rainforest, in India and Borneo, and Africa.