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# Yeshwantrao Chavan College of Engineering

(An Autonomous Institution Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

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# MICRO-PROJECT REPORT

OF

Environmental Science

(Subject Code: GE2132)

ON

**Deforestation and Forest Conservation Act**

Submitted By

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We, students of Second semester of **Computer Technology** engineering humbly submit that we have completed the micro-project work as prescribed in this report by our own skill and the study in academic session 2022-23, as per the instruction given by Prof. C.D. Pourkar.

The work carried out in the project is our and not copied the report on any appreciable part from any other literature in contravention of the academic ethics.

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**Deforestation and Forest Conservation Act**

## INTRODUCTION:

The awareness and consideration for environment covers several environmental issues.

The Forest (Conservation) Act of 1980 (FCA, 1980) is an act by the Parliament of India which ensures conservation of forest and its resources.

It was enacted by the Parliament of India in order to control the ongoing deforestation of the forests of India. It came into force on October 25, 1980 containing five sections.

Amid news reports mentioning future amendments to the FCA 1980 by the Environment Ministry, the act and its provisions become important from the current affairs perspective.

Deforestation, the widespread clearing of forests, has emerged as one of the most critical environmental issues facing our planet today. It involves the permanent removal of trees and vegetation, leading to the transformation of once-thriving ecosystems into barren landscapes. While some controlled deforestation may be necessary for human development and economic growth, the excessive and unsustainable exploitation of forests has far-reaching consequences for biodiversity, climate change, and the overall well-being of our planet.

Deforestation occurs for various reasons, including agricultural expansion, logging for timber and paper production, urbanization, and the establishment of infrastructure such as roads and settlements. These activities, driven by human needs and demands, have contributed to the rapid and alarming rate at which forests are disappearing. The consequences of deforestation are both immediate and long-term, affecting not only the natural world but also the communities and economies that rely on forest resources for their livelihoods.

The loss of forests has a profound impact on biodiversity. Forests are home to countless species of plants, animals, and microorganisms, many of which are unique and found nowhere else on Earth. Deforestation disrupts ecosystems, fragmenting habitats and reducing the available resources for wildlife. It can lead to the extinction of species and disrupt delicate ecological balances that have evolved over millennia.

Furthermore, deforestation significantly contributes to climate change. Forests act as carbon sinks, absorbing carbon dioxide from the atmosphere and storing it in their trees and soil. When forests are cleared, this stored carbon is released back into the atmosphere as carbon dioxide, a greenhouse gas that contributes to global warming. Deforestation is responsible for a substantial portion of global greenhouse gas emissions, exacerbating the effects of climate change and intensifying extreme weather events.

The consequences of deforestation are not confined to environmental issues alone. Indigenous communities and local populations who depend on forests for their livelihoods and cultural practices are profoundly affected. Forests provide them with food, medicine, and resources for shelter and income generation. When forests are destroyed, their way of life is disrupted, leading to social and economic challenges and, in some cases, displacement.

Addressing the issue of deforestation requires a multifaceted approach that encompasses sustainable land-use practices, conservation efforts, policy interventions, and global cooperation. It is crucial to promote responsible forest management, reforestation and afforestation initiatives, and the protection of high-value forest areas. Balancing the needs of economic development with the preservation of forests is a complex task that requires collaboration between governments, businesses, local communities, and environmental organizations.

## Need for Forest Conservation Act, 1980

## The need for a Forest Conservation Act arises from various factors that highlight the importance of protecting and managing forests. Here are some key reasons why a Forest Conservation Act is necessary:

## 1. Biodiversity Preservation: Forests are home to a rich diversity of plant and animal species. They provide habitat and support complex ecological networks. Forest Conservation Acts are needed to safeguard these ecosystems, ensuring the protection of biodiversity and preventing the loss of species and their habitats.

## 2. Climate Change Mitigation: Forests play a crucial role in mitigating climate change. They act as carbon sinks, absorbing carbon dioxide from the atmosphere through photosynthesis and storing it in trees and vegetation. Forest Conservation Acts are essential for maintaining and restoring forests, which helps reduce greenhouse gas emissions and combat global warming.

## 3. Soil and Water Conservation: Forests play a critical role in soil and water conservation. They help prevent soil erosion, regulate water cycles, and maintain water quality. Forest Conservation Acts are necessary to protect forests and ensure the sustainable management of watersheds, which contributes to soil fertility, water availability, and water resource protection.

## 4. Sustainable Resource Management: Forests provide a wide range of valuable resources, including timber, non-timber forest products, and ecosystem services. Forest Conservation Acts are needed to promote sustainable resource management practices, ensuring the responsible utilization of forest resources while preserving their long-term availability for present and future generations.

## 5. Ecotourism and Recreation: Forests are popular destinations for ecotourism and recreational activities. They offer opportunities for nature-based tourism, outdoor recreation, and cultural experiences. Forest Conservation Acts help in maintaining the ecological integrity of forests while allowing sustainable and responsible use for recreational and tourism purposes.

## 6. Protection of Indigenous Rights and Local Communities: Forests often hold significant cultural and socioeconomic value for indigenous peoples and local communities who depend on them for their livelihoods and traditional practices. Forest Conservation Acts are necessary to protect the rights of these communities, ensure their participation in decision-making processes, and support sustainable forest-based livelihoods.

## 7. Prevention of Illegal Logging and Deforestation: Illegal logging and deforestation pose significant threats to forests and their ecosystems. Forest Conservation Acts provide a legal framework for regulating and monitoring activities within forests, helping to combat illegal practices, enforce regulations, and prevent unauthorized deforestation.

## 8. Conservation Education and Awareness: Forest Conservation Acts often include provisions for education and awareness programs. These initiatives help raise public awareness about the importance of forests, their role in ecosystem services, and the need for their conservation. Such programs promote a sense of responsibility among individuals and communities, fostering a culture of forest stewardship.

## 9. International Commitments and Agreements: Many countries have made international commitments to forest conservation through agreements such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD). Forest Conservation Acts help countries fulfill these commitments and align with global sustainability goals.

## 10. Sustainable Development and Green Economy: Forests contribute to sustainable development by providing employment opportunities, supporting rural livelihoods, and fostering green economic activities such as sustainable forestry, ecotourism, and the production of forest-based products. Forest Conservation Acts play a vital role in promoting sustainable development practices and facilitating the transition towards a green economy.

## In summary, the need for a Forest Conservation Act stems from the critical importance of forests for biodiversity conservation, climate change mitigation, soil and water conservation, sustainable resource management, indigenous rights, and overall environmental sustainability. These laws provide a framework for effective forest management, ensuring the long-term preservation and responsible use of forest resources.

### **Objectives of the Forest Conservation Act 1980**

The objectives of a Forest Conservation Act can vary depending on the specific legislation and the country or region in which it is implemented. However, the following are some common objectives associated with forest conservation acts:

**1. Preservation of Forest Ecosystems**: The primary objective of a forest conservation act is to preserve and protect forest ecosystems. This includes maintaining the biodiversity, ecological functions, and overall health of forests, ensuring their long-term sustainability.

**2. Sustainable Forest Management:** Forest conservation acts aim to promote sustainable forest management practices. This involves balancing the utilization of forest resources with conservation efforts, ensuring that forests can continue to provide environmental, economic, and social benefits in a sustainable manner.

**3. Biodiversity Conservation:** Forests are home to a wide array of plant and animal species, many of which are unique and endemic. One objective of forest conservation acts is to conserve and protect this biodiversity, safeguarding species and their habitats from extinction or degradation.

**4. Climate Change Mitigation:** Forests play a crucial role in mitigating climate change by absorbing carbon dioxide from the atmosphere through photosynthesis. Forest conservation acts aim to preserve and restore forests as carbon sinks, helping to reduce greenhouse gas emissions and combat global warming.

**5. Water Resource Protection:** Forests play a critical role in regulating water cycles, influencing water availability, quality, and watershed health. Forest conservation acts seek to protect forests to ensure the conservation of water resources, including freshwater rivers, lakes, and groundwater reserves.

**6. Soil Conservation and Watershed Management:** Forests help prevent soil erosion and promote soil fertility. Forest conservation acts strive to maintain forest cover to minimize soil degradation, protect watersheds, and sustain the productivity of agricultural lands downstream.

**7. Cultural and Socioeconomic Benefits**: Forests hold cultural and socioeconomic significance for many communities, including indigenous peoples and local populations. Forest conservation acts aim to protect these cultural values and ensure that communities can continue to benefit from forest resources for their livelihoods and cultural practices.

**8. Regulation of Forest Activities:** Forest conservation acts establish regulations and guidelines for various activities within forests, such as logging, mining, agriculture, and infrastructure development. The objective is to ensure that these activities are carried out in a sustainable and environmentally responsible manner, minimizing negative impacts on forests and their ecosystems.

**9. Enforcement and Compliance:** Forest conservation acts aim to establish mechanisms for monitoring and enforcing compliance with forest regulations. This helps deter illegal activities, ensure adherence to sustainable practices, and hold offenders accountable for their actions.

**10. Education and Awareness**: Forest conservation acts often include provisions for education and awareness programs to promote understanding of the importance of forests and the need for their conservation. These initiatives aim to foster a sense of responsibility and encourage public participation in forest conservation efforts.

It's important to note that the specific objectives of a Forest Conservation Act can be influenced by the unique environmental, social, and economic context of each country or region.

### **Features of the Forest Conservation Act 1980**

The Forest Conservation Act is a legislation aimed at preserving and managing forests to ensure their long-term sustainability. While specific features may vary depending on the country or region, here are some common features often associated with forest conservation acts:

**1. Legal Protection:** Forest conservation acts provide legal protection to forests, designating them as protected areas or reserves. These laws establish the framework for regulating activities within forests and outline penalties for unauthorized deforestation or exploitation.

**2. Forest Classification and Zoning:** Forest conservation acts often classify forests based on their ecological, economic, and social values. They establish different zones within forests, such as protected areas, production forests, and buffer zones, each with specific management objectives and regulations.

3. Permitting and Licensing: Forest conservation acts typically require permits or licenses for various activities within forests, such as logging, mining, or infrastructure development. These permits ensure that activities are conducted in a sustainable and environmentally responsible manner.

4. Sustainable Forest Management: Forest conservation acts promote the principles of sustainable forest management, which involve the conservation, utilization, and regeneration of forest resources. These laws outline guidelines and standards for sustainable practices, including timber harvesting, biodiversity conservation, and ecosystem restoration.

5. Environmental Impact Assessment: Forest conservation acts often mandate the assessment of potential environmental impacts before approving any development projects within forests. This assessment ensures that the proposed activities will not cause significant harm to the forest ecosystem or its biodiversity.

**6. Community Participation and Rights:** Many forest conservation acts recognize the rights and participation of indigenous communities and local stakeholders who have traditionally lived in or relied on forests for their livelihoods. These laws may include provisions for their involvement in decision-making processes and benefit-sharing arrangements.

**7. Forest Monitoring and Enforcement**: Forest conservation acts establish mechanisms for monitoring and enforcing compliance with forest regulations. This may involve the establishment of forest management units, the deployment of forest rangers or patrols, and the implementation of surveillance technologies to detect illegal activities.

**8. Conservation Funding and Incentives**: Forest conservation acts may include provisions for financing mechanisms, such as dedicated funds or grants, to support conservation efforts. They may also provide incentives, such as tax benefits or subsidies, to encourage sustainable practices and forest restoration initiatives.

**9. Collaboration and Partnerships**: Forest conservation acts often emphasize the importance of collaboration and partnerships among government agencies, local communities, NGOs, and other stakeholders. These partnerships facilitate the sharing of knowledge, resources, and responsibilities for effective forest management.

**10. Compliance and Penalties**: Forest conservation acts outline penalties and sanctions for violations of forest regulations. These penalties serve as deterrents to illegal activities, promoting adherence to sustainable practices and ensuring the accountability of offenders.

It's important to note that the specific features and provisions of forest conservation acts may vary between countries or regions, reflecting the unique environmental, social, and economic contexts in which they are implemented.

### **Important Sections of the Forest Conservation Act, 1980**

**Section 1** of the Act explains Short Title, Extent, and the Date of commencement. It states that

: (1) This Act may be called the Forest (Conservation) Act, 1980.

(2) It extends to the whole of India.

(3) It shall be deemed to have come into force on the 25th day of October, 1980.

**Section 2** of the act is about the restriction on the State Government for dereservation of forests or use of forest land for non-forest purpose. It prohibits the State Government, except prior permission from central government for issuing orders directing:-

1. that any reserved forest (within the meaning of the expression "reserved forest" in any law for the time being in force in that State) or any portion thereof, shall cease to be reserved;
2. that any forest land or any portion thereof may be used for any non-forest purpose;
3. that any forest land or any portion thereof may be assigned by way of lease or otherwise to any private person or to any authority, corporation, agency or any other organisation not owned, managed or controlled by Government;
4. that any forest land or any portion thereof may be cleared of trees which have grown naturally in that land or portion, for the purpose of using it for reafforestation. As provided in explanation "non-forest purpose" means the breaking up or clearing of any forest land or portion thereof for-

(a) the cultivation of tea, coffee, spices, rubber, palms, oil-bearing plants, horticultural crops or medicinal plants;

(b) any purpose other than reafforestation; but does not include any work relating or ancillary to conservation, development and management of forests and wildlife, namely, the establishment of check-posts, fire lines, wireless communications and construction of fencing, bridges and culverts, dams, waterholes, trench marks, boundary marks, pipelines or other like purposes.

**Section 3** of the Act deals with constitution of Advisory Committee. It gives Central Government the power to constitute a committee of such number of person as it may deem fit to advise the Government with regard to-

1. the grant of approval for the purpose which is prohibited in section of this act; or

(ii) any other matter connected with the conservation of forests which may be referred to it by the Central Government.

**Section 3A** deals with Penalty for contravention of the provisions of the Act. It states that Whoever contravenes or abets the contravention of any of the provisions of Section 2, shall be punishable with simple imprisonment for a period which may extend to fifteen days.

**Section 3B** deals with cases in which the offence is made by Authorities or Government Departments. In such cases it says that the Head of the Department shall be considered Guilty, although if he proves that it was done without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

**Section 4** deals with power to make rules. It states that

(1) The Central Government may, by notification in the Official Gazette, makes rules for carrying out the provisions of this Act.

(2) Every rule made under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

**Section 5** deals with repealing and saving. It states that

(1) The Forest (Conservation) Ordinance, 1980 is hereby replaced.

(2) Notwithstanding such repeal, anything done or any action taken under the provisions of the said Ordinance shall be deemed to have been done or taken under the corresponding provisions of this Act.

### **Amendments to the Forest Conservation Act, 1980**

In order to balance economic and ecological concerns regarding the Forest Conservation Act, 1980 several amendments were proposed by the Union Ministry of Environment, Forest and Climate Change in March 2021. Some amendments were as follows:

1.The proposed new ‘section 1A’ created provision which exempts survey and exploration for underground oil and natural gas. In other words,  such activities will no longer be classified as a ‘non-forest activity’ and will not require permission from the government,

However, there will be certain conditions laid by the Central Government to carry out such activities, one of which being, survey and drilling activities will not be carried out within the proximity of wildlife sanctuaries.

2. Land acquired for railway networks will not be applicable to FCA and be exempt. Of course, certain guidelines will be laid down by the Central government, which will include planting trees to compensate for the loss of forest lands.

3. Section 2 of the FCA requires government approval for leasing forest lands not owned by the central government for any commercial purposes to private entities.

This clause has been deleted in the proposed amendment. This will enable state governments to lease forest lands without the Central government’s approval.

4. A new explanation to Section 2 proposes to exempt plantation of native species of palm and oil-bearing trees from the definition of “non-forest purpose”.

The government will only impose conditions for compensatory afforestation and payment of other levies and compensations.

5. The proposed amendments to FCA add to the list of non-forestry purposes activities such as building checkpoints, fence boundary, and communication infrastructure.

It may also add ecotourism facilities approved under the Forest Working Plan or Working Scheme approved by the central government.

In 1992, some amendment was made in the Act which made provisions for allowing some non-forest activities in forests, without cutting trees or limited cutting with prior approval of Central Govt. These activities are setting of transmission lines, seismic surveys, exploration, drilling and hydroelectric projects. The last activity involves large scale destruction of forest, for which prior approval of the Centre is necessary.

**Conclusion:**

Forest conservation is the practice of planning and maintaining forested areas for the benefit and sustainability of future generations. Forest conservation involves the upkeep of the natural resources within a forest that are beneficial for both humans and the ecosystem.

Forest conservation as the name suggests is the preservation and the protection of forests. It also involves the reversal of deforestation and environmental pollution. The preservation of all natural resources is absolutely essential for the balance of our ecosystem. deforestation poses a significant threat to our planet's ecological balance, biodiversity, and climate stability. Its impacts are wide-ranging, affecting both the natural world and human societies. Recognizing the urgency of this issue and taking decisive action to curb deforestation is essential for the well-being of current and future generations. By working together to protect and restore our forests, we can create a sustainable future that benefits both nature and humanity.