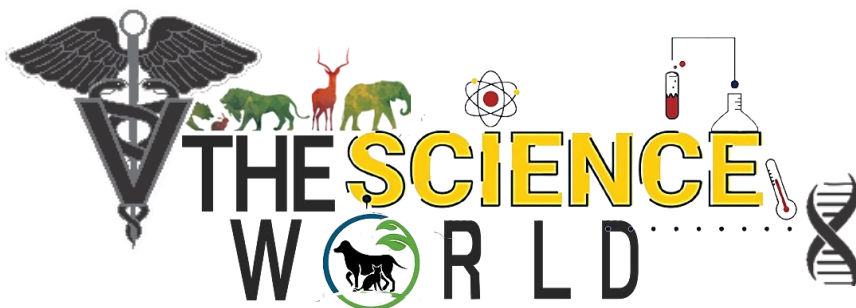




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Understanding Environmental Impact Assessments: A Glimpse into Global and Indian Environmental Laws

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Abstract

Environmental Impact Assessment (EIA) has become a key mechanism for ensuring that developmental projects are aligned with environmental, social, and economic sustainability. EIA is a structured process designed to predict and evaluate the consequences of proposed projects, enabling decision-makers to mitigate adverse environmental impacts. In India, the EIA process was first formalized under the Environmental Protection Act of 1986 and later refined in 2006 to include stages such as screening, scoping, public hearings, and appraisal. EIA ensures compliance with various national environmental laws, such as the Wildlife Protection Act (1972), Water Act (1974), and Air Act (1981), to protect ecosystems, water resources, and air quality from harmful effects of development. EIA also aligns with international frameworks like the Stockholm Declaration (1972) and the Kyoto Protocol (1997), ensuring that development aligns with global environmental goals. The National Green Tribunal Act (2010) strengthens the enforcement of EIA by providing a legal platform for environmental disputes. The 2016 Compensatory Afforestation Fund Act further mandates that developers compensate for deforestation caused by projects. EIA's role is pivotal in balancing development and environmental protection by integrating both environmental and social considerations into project planning. As the world grapples with challenges like climate change and biodiversity loss, EIA helps ensure that economic growth does not compromise environmental integrity. By predicting risks and enforcing mitigation measures, EIA enables more sustainable decision-making, securing a future where development can coexist with the preservation of natural ecosystems.

Key words: Environmental Impact Assessment, Laws, Act

Introduction:

In today's world, where development and environmental preservation often clash, Environmental Impact Assessment (EIA) has become an essential tool in balancing growth



with sustainability. EIA helps ensure that developmental projects are evaluated for their environmental, social, and economic impacts before they are implemented. It is not just a process but a safeguard that allows decision-makers to understand potential risks and make informed choices to minimize harm to the environment.

EIA is a formal process used to predict the environmental consequences of proposed projects. According to the United Nations Environment Programme (UNEP), EIA identifies the impacts on the environment, human health, and socio-economic conditions, ensuring decision-makers can mitigate adverse effects. It is an early-stage tool that helps shape projects in a way that they align with the environmental realities of a region, benefiting both developers and local communities.

History of EIA in India:

EIA was first introduced in India in 1978 and gained legal status under the Environmental Protection Act (EPA) of 1986. In 1994, the Indian government issued notifications that required specific projects such as mining, thermal power plants, and infrastructure developments like highways and ports to obtain environmental clearance. The EIA process was further refined in 2006, decentralizing project clearance and introducing stages like screening, scoping, public hearings, and appraisal.

In 2020, a draft amendment proposed changes to EIA rules, including reducing the notice period for public hearings and altering the submission frequency of compliance reports, sparking debates over its potential to dilute environmental safeguards.

National Environmental Laws in India

India's journey toward environmental protection and sustainable development has been significantly shaped by a series of landmark laws that were implemented in the aftermath of the Stockholm Conference of 1972. These laws have laid the foundation for the country's efforts to balance development with environmental preservation, with Environmental Impact Assessment (EIA) playing a critical role in this process.

Environmental Impact Assessment (EIA) is a vital tool that ensures proposed projects are thoroughly evaluated for their environmental, social, and economic impacts before they are given the green light. It allows decision-makers to understand the potential consequences of projects and to mitigate any adverse effects. India's environmental laws, many of which were introduced after the 1972 Stockholm Conference, are closely linked to the EIA process and work together to promote environmental sustainability.



Wildlife Protection Act, 1972

One of the earliest and most significant environmental laws in India, the **Wildlife Protection Act of 1972**, was designed to safeguard the country's diverse flora and fauna. The act provides legal protection to wild animals, birds, and plants, ensuring that their habitats are conserved and that wildlife populations remain sustainable.

In the context of EIA, the Wildlife Protection Act becomes crucial when developmental projects are proposed near or within wildlife habitats. For example, if a highway or dam is planned near a protected area, the EIA process will assess the potential impacts on wildlife and ecosystems, ensuring that these habitats are not adversely affected. The EIA process mandates that any project with the potential to disrupt wildlife habitats must consider alternative designs or mitigation measures, such as wildlife corridors or protective zones, to minimize harm.

Water (Prevention and Control of Pollution) Act, 1974

Water is one of the most critical resources, and the **Water (Prevention and Control of Pollution) Act of 1974** was enacted to prevent and control water pollution in India's rivers, lakes, and groundwater sources. The act established the Central and State Pollution Control Boards (CPCB and SPCBs) to enforce water quality standards and monitor pollution levels.

EIA integrates water quality considerations into the assessment process, particularly for projects that may impact water bodies, such as industrial facilities, mining operations, or infrastructure developments. The EIA process requires that these projects include an analysis of potential water pollution, ensuring that steps are taken to treat effluents, prevent contamination, and protect local water resources from degradation. The Water Act's provisions work alongside EIA to ensure that development projects do not harm the purity or availability of water sources.

Air (Prevention and Control of Pollution) Act, 1981

The **Air (Prevention and Control of Pollution) Act of 1981** focuses on controlling and preventing air pollution, particularly from industrial and vehicular sources. It sets standards for air quality and empowers the CPCB and SPCBs to regulate emissions of pollutants such as sulfur dioxide, nitrogen oxides, and particulate matter.

EIA plays an important role in assessing the potential air pollution impacts of projects like thermal power plants, factories, or large infrastructure projects. The act ensures that any project requiring EIA must demonstrate compliance with air quality standards and propose measures to control emissions. The EIA process assesses not only current pollution levels but also the long-term impacts of air pollution on the local environment and human health, helping to shape more environmentally responsible project designs.



Environmental Protection Act, 1986

Enacted in the wake of the Bhopal Gas Tragedy, the **Environmental Protection Act (EPA) of 1986** serves as an umbrella law for environmental management in India. It provides the legal framework for environmental governance and grants the government broad powers to take necessary actions to protect the environment.

Under the EPA, the EIA process gained significant authority, as it mandated that any project that could potentially harm the environment must undergo rigorous scrutiny before receiving approval. The EPA introduced the requirement for environmental clearance for various development projects, making EIA an essential tool for environmental protection. The law also empowers the government to set guidelines for EIA and issue notifications for specific types of projects, such as the 2006 notification that streamlined the EIA process and categorized projects into national and state-level clearances.

National Green Tribunal Act, 2010

The **National Green Tribunal (NGT) Act of 2010** established a specialized body to handle environmental disputes and ensure the enforcement of environmental laws, including those related to EIA. The NGT provides a legal platform for citizens and organizations to challenge environmental clearances, violations of environmental norms, and inadequate implementation of EIA recommendations.

The NGT has played a crucial role in ensuring that the EIA process is conducted thoroughly and transparently. For example, in cases where EIAs are found to be insufficient or biased, the NGT has stepped in to halt projects, demand more comprehensive assessments, or enforce stronger mitigation measures. The tribunal's decisions often focus on ensuring that the EIA process respects environmental laws and the rights of affected communities.

Compensatory Afforestation Fund Act, 2016

The **Compensatory Afforestation Fund Act of 2016** was enacted to manage the funds collected for afforestation when forest land is diverted for non-forest purposes, such as industrial development or infrastructure projects. The act mandates that project developers pay for afforestation activities, either on non-forest land or degraded forest areas, to compensate for the loss of biodiversity and forest cover.

In the context of EIA, this law is vital when projects propose deforestation or encroach on forested areas. The EIA process evaluates the ecological impact of such projects and requires compensatory afforestation as part of the project's environmental clearance. This ensures that any loss of forest cover is mitigated by replanting trees in other areas, contributing to biodiversity conservation and carbon sequestration.



International Environmental Frameworks

Environmental governance is not confined to national borders. Several international agreements influence how countries approach environmental protection, with EIAs playing a key role in meeting global goals. Some of these include:

1. **Stockholm Declaration (1972):** This milestone event emphasized the need for planning to reconcile conflicts between development and the environment. It laid the foundation for EIAs as a means to minimize environmental damage caused by human activities.
2. **United Nations Convention on the Law of the Sea (1982):** This convention mandates that countries assess the environmental impacts of activities that could harm the marine environment.
3. **Kyoto Protocol (1997):** One of the key components of the Kyoto Protocol is the reduction of greenhouse gas emissions. EIA plays a crucial role in this by assessing the environmental impacts of projects, particularly those related to emission reduction under the Clean Development Mechanism (CDM).
4. **Convention on Biological Diversity (CBD) and Nagoya Protocol:** India's Biological Diversity Act (2002) aligns with the CBD and Nagoya Protocol, promoting sustainable use and equitable sharing of biological resources. EIAs ensure that developmental projects do not jeopardize local biodiversity.

Conclusion:

Environmental laws, along with EIA processes, play a crucial role in protecting the environment, ensuring that development is sustainable and human health is safeguarded. As global environmental challenges such as climate change and biodiversity loss grow more urgent, EIAs provide an essential tool for integrating environmental considerations into the decision-making processes. Both national and international frameworks highlight the need for robust environmental assessments, reminding us that while development is essential, it should not come at the expense of our planet's future. By integrating environmental and social factors into planning, EIAs ensure that the world can continue to grow while preserving the delicate balance that sustains life on Earth.



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