

Assessing the Effectiveness of Environmental Governance Policies: A Comparative Analysis of India and Denmark

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Abstract

This research paper conducts a comparative analysis of regional approaches to environmental governance policies to assess their effectiveness. In order to manage natural resources and reduce environmental degradation, environmental governance is essential. However, because different regions have different socio-economic, political, and environmental conditions, governance initiatives vary in their effectiveness. This study attempts to assess the results of environmental governance regulations in various locations and identify factors impacting their success by analyzing secondary data from reliable sources. The study compares governance practices in Denmark and India and their effects on environmental sustainability using a comparative framework. It delves into the challenges and opportunities associated with achieving sustainability in diverse environments. The study focuses on the policies in India and Denmark related to environmental governance and studies about the similarities and differences. The results will deepen our understanding of the advantages and disadvantages of different regional governance methods and offer stakeholders and policymakers suggestions for improving environmental governance and support informed decision-making for sustainable environmental management.

Keywords: Environmental governance, Sustainable environmental management, environmental degradation, Environmental policies.

Introduction

The term ‘environmental governance’ refers to the decision-making procedures used in the management and control of the environment and natural resources. The term ‘multi-level interactions among local, national, international or global level’, but not limited to three main actors, i.e. state, market, and civil society which interact with one another whether informally or formally; in formulating and implementing policies in response to environment-related demands and inputs from society; bound by rules, procedures, process, and widely accepted behaviour; possessing characteristics of ‘good governance’ for the purpose of attaining environmentally sustainable development is how the International Union for Conservation of Nature (IUCN) defines environmental governance. Scientists and conservation managers can engage in governance more successfully if they have a thorough understanding of the fundamental principles and notions of environmental governance processes.

One can understand global environmental governance (GEG) as the sum of organizations, policy instruments, financing mechanisms, rules, procedures and norms that regulate the processes of global environmental protection. Since environmental issues entered the international agenda in the early 1970s, global environmental politics and policies have been developing rapidly. The environmental governance system we have today reflects both the successes and failures of this development. There is great awareness of environmental threats and numerous efforts have emerged to address them

globally. At the same time and partly because of the rather spectacular growth in awareness and initiatives the GEG system has outgrown its original design and intent. The system's high maintenance needs, its internal redundancies and its inherent inefficiencies have combined to have the perverse effect of distracting from the most important GEG goal of all improved environmental performance. Even though the GEG system has achieved much in the way of new treaties, more money and a more participatory and active system than anyone might have imagined three decades ago, environmental degradation continues. Indeed, because we know so much more about environmental conditions and environmental processes, we also know more about what is not going well with the global environment.

This state of affairs is well documented in the Millennium Ecosystem Assessment (2006). For example, despite the feverish discussions about global climate change, carbon emissions continue to rise; global atmospheric CO₂ levels that were around 300 parts per million (ppm) in the early 1900s have now reached approximately 380 ppm. The Millennium Ecosystem Assessment also found that approximately 60 per cent of the ecosystems that it examined were either being degraded or used unsustainably. Since 1980, 35 per cent of the world's mangroves have been lost and 20 per cent of the world's precious coral reefs have been destroyed. A decade after the signing of the Biodiversity Convention, the species extinction rate is still 1,000 times higher than what would be occurring naturally, without human impact. Despite the dozens of global and regional fisheries treaties, an estimated 90 per cent of the total weight of large predators in the oceans—such as tuna, sharks and swordfish have disappeared over the last few decades. Estimates suggest that we may still be losing as much as 150,000 square kilometers of forest each year. Given increasing evidence of environmental degradation, the system needs reform urgently.

Interventions targeted at modifying institutions, decision-making processes, incentives, knowledge, and behaviours related to the environment are together referred to as environmental governance. To be more precise, we use the term 'environmental governance' describes the collection of institutions, procedures, and regulatory frameworks that allow political players to have an impact on environmental decisions and outcomes. Government and governance are not the same thing. It encompasses not only the activities of the state but also entities like enterprises, NGOs, and communities. The political-economic links that institutions represent and the ways in which these interactions influence behaviours, identities, and results are crucial to the many approaches to environmental governance. Examples of the ways that environmental issues are addressed include international agreements, national laws and regulations, local decision-making organizations, transnational organisations, and environmental non-governmental organisations. There is no getting around governance for anybody involved because it can also be modified by non-organizational institutional methods such as when it is based on market incentives and self-regulatory processes concerning the effects on the environment. Environmental governance comes in many different forms, is extremely important, and is almost universal. When it comes to environmental governance each country have its own policies and programmes for the protection and management of natural resources. Different attempts are taken by India and Denmark for the same according to their geographical features.

Research Question:

- How do the enforcement mechanisms of environmental governance policies differ between India and Denmark?
- What is the impact of public participation on the effectiveness of environmental governance in India and Denmark?

- What role does technological innovation play in the effectiveness of environmental governance policies in India and Denmark?

Hypothesis

- Denmark's enforcement mechanisms are more effective than India's due to higher levels of transparency, public participation, and financial resources.
- Public participation significantly enhances the effectiveness of environmental governance policies in Denmark compared to India.
- Technological innovation plays a more significant role in enhancing the effectiveness of environmental governance policies in Denmark compared to India.

Literature Review

Arun Agarwal and Maria Carmen Lemos' (2006) journal article, 'Environmental governance,' examines the literature in four academic fields related to environmental governance: decentralisation, market and individual incentive-based governance, globalisation, and cross-scale governance. It makes the case that traditional discussions centered on pure forms of governance, in which the state or private sector take the lead, are inadequate to handle the complexity and multiscale nature of many of the most urgent environmental issues. The assessment highlights public-private partnerships, social-private partnerships, and co-management as three new hybrid forms of governance spanning the state, market, and community divisions. It examines the significant promise they hold for coupled social and natural systems to recover from environmental degradation and change and explores some of the critical problems to which hybrid forms of environmental governance are also subject.

The article titled 'Environmental Governance in India: A Systematic Review of the Initiatives' (2015) by Er. Vikram Sandhu and Dr. A.S. Sidhu describes and gives brief idea about the environmental governance policies in India and the institutions dealing with the environmental governance concerns. India has enacted more than 200 laws for protecting the environment with significant provisions in the constitution. This article made an attempt to systematically analyze the initiatives taken by the government of India in the broader framework.

Environmentalism of the poor by Ramachandra Guha (2002) describes that the main source of environmental destruction in the world is the demand for natural resources and generated by the consumption of the rich and it is the poor who are affected the most by environmental destruction. It describes about the importance of balancing nature and development of poor people who depends on forest products for their livelihood.

Environmental degradation in India: Causes and Consequences by Rajiv Chopra (2016) analyses the Social factors like population growth, Poverty, and urbanization then Economic factors, Institutional factors which affecting environmental degradation in India. Describes about the impact of environmental degradation like health issues, Ozone layer depletion and loss of biodiversity and how it adversely affects the environment. It analyses that, India has a long way to go to reach environmental quality similar to those enjoyed in developed economies. Pollution remains a major challenge and opportunity for India. Environmental degradation is one of the primary causes of diseases, health issues and long-term livelihood impact for India.

Strategies for Greening the Economy in Three Nordic Countries by J. Khan, B. Johansson, and R. Hildingsson examines the strategies for greening the economy in Nordic countries, including Denmark. It discusses the use of collaborative governance

and market-based instruments, which can be compared with India's approaches to environmental governance.

Rethinking Environmental Governance: Exploring the Sustainability Potential in India by Jaydip De explores the nature, dimensions, and problems of environmental governance in India. It discusses the role of non-state actors and the need for partnership building to achieve Sustainable Development Goals (SDGs), providing a detailed understanding of the challenges and opportunities in India's environmental governance.

Examining the Environmental Policies and Sustainable Development Initiatives in India by Selvamuthu CM and B. Lavaraju adopts a comprehensive approach, analysing legal documents, policy reports, scientific literature, and data from government agencies. It incorporates stakeholder perspectives and insights from civil society organizations, making it a valuable resource for understanding the effectiveness of environmental policies in India.

Policy Coherence for Sustainable Development and Environmental Security: A Case Study of European Union Policies on Renewable Energy by S. Habel examines the coherence of policies for sustainable development and environmental security within the European Union, including Denmark. It provides a comparative perspective on how policy coherence can enhance environmental governance, which can be contrasted with India's policy framework.

Objectives

The following are the study's main objectives.

- To evaluate the effectiveness of environmental governance policies in India and Denmark in achieving environmental sustainability goals
- To compare and contrast the different approaches to environmental governance in India and Denmark
- To draw lessons learned from the experiences of Denmark that can be applied to improve environmental governance policies in India.

Methodology

The study focuses on the environmental governance policies in India and Denmark and mainly depends on the secondary sources for the research. For data gathering, researcher chose India and Denmark for the study and gathered secondary information from a variety of internet journals, articles, books and websites. Researcher thoroughly examined the environmental governance in India and Denmark using secondary sources. Government documents of both countries were selected and examined and critically evaluated the similarities and differences through systematic literature review. The study is based on the qualitative data available from various publications of the government of India and Denmark as well as websites of different institutes for framing and executing policies for the protection and conservation of environment.

Scope and importance of the study

The present study will be very useful to analyse the initiatives taken by the Government of India and Denmark in a broader framework to develop the understanding on the issue that what has been done in the past, how much that was successful, and what is required in the near future for the conservation of the environment of both the countries. The study will be very helpful for policy makers and those executing agencies too.

Environmental Governance in India

The entirety of the biotic and abiotic components present at a location at a given time makes up the environment. The three fundamental elements are energy, biodiversity, and habitat. The surroundings at a location are never the same. It shifts in both time and place. The biotic and abiotic components of it are related functionally. The way the environment and its elements function is determined by the flow of energy inside it. The environment works to preserve the natural equilibrium. Environmental influences have an impact on humans both directly and indirectly. The climate is one of these variables that directly affects human economic activity. It has a significant impact on the decision-making process when it comes to resource utilization. This affects the various racial groups' cultures and ways of life. Both urban and rural areas of India are facing environmental degradation. Urban areas are turned into slums because of the heavy population density and a result of that all sorts of pollution including air, water and soil also came into force. Cities are more vulnerable because of air pollution, solid waste management problems and transportation congestion. The development of industries further accelerated the process of pollution in cities. India's rural areas are in equally bad shape. Poor management of soil and water in agriculture has caused these resources to lose some of their productive potential. Additionally, runoff from excessive fertilizer, pesticide, and insecticide use has contaminated the land, water, and soil. Extreme poverty among rural Indian populations contributes to the nation's increased demand on its natural resources. India's natural resource depletion is faster than the global average. Estimates from the World Bank indicate that one-third of the commodities and services used by the impoverished are directly impacted by the depletion of natural resources. Government of India has taken initiatives for the conservation of environment through legislation. India has enacted more than two hundred laws for protecting the environment. With significant provisions in the constitution. The Indian Constitution's Article 51A(g) declares that it is every citizen's fundamental responsibility to preserve and enhance the natural environment. This encompasses wildlife, lakes, rivers, forests, and to show care for all living things. Here the researcher is describing the laws related to environmental governance as follows.

1. Wild life protection act 1972

An Indian law passed in 1972 with the intention of conserving and safeguarding the nation's wildlife is called the Wildlife Protection Act. It provides a legal foundation for the protection of endangered species by outlawing actions like hunting, poaching, and trading. It provides a list of protected species of animals, birds and plants. It also made the establishment of a network of ecologically protected areas includes sanctuaries, natural parks, conservation reserves, community reserves and tiger reserve. It is an act to ensure the nation's ecological and environmental security by providing for the protection of wild animals, birds, and plants, as well as anything related, auxiliary, or incidental thereto. This act forbids the trading of wildlife and its byproducts for profit, prohibiting their exploitation. The act enumerates several endangered species and offers strategies for their preservation and resuscitation. In an effort to discourage illegal activity, it lists punishments for crimes like poaching, hunting, and wildlife trafficking. To preserve the habitats of species, the laws make it easier to create and administer protected areas. The legislation contains provisions pertaining to the central zoo authority's composition, licenses for scientific research, education, and scientific management, as well as permits for the picking of specific plants for scientific study and educational purposes. Penalties for breaking any of the act's provisions might vary depending on how serious and to what extent the infraction is.

2. Water (Prevention and Control of Pollution) Act, 1974

The Act tries to make judicious use of water and to check pollution of water through different provisions and measures. This act gave the Central Government the authority to create a central system for controlling water contamination. Additionally, the act gives state governments the authority to create their own state-level water pollution management boards. The act also gives the State Pollution Control Board (SPCB) and Central Pollution Control Board (CPCB) regulatory authority to establish and implement standards for effluents linked to discharge into water bodies. The coordination of the operations between the states falls under the purview of the CPCB. It also serves the union territories' regulatory needs. The SPCB is in charge of monitoring pollution in the individual states.

3. Forest (Conservation) Act, 1980

Under section 2 of this act, it is mandatory for the state government to obtain permissions for the dereservation of forest and using forest land for non-forest purposes.

4. Air (Prevention and Control of Pollution) Act, 1981

The purpose of the act is to avoid, control, and lessen air pollution. The framework of the legislation is similar to that of the Water legislation in that it grants the federal and state pollution control boards the jurisdiction to grant industry permission to operate within specified air pollution criteria. The Act is valid throughout India and was revised in 1987.

5. Environment Protection Act, 1986

This Act's primary goal is to protect and enhance the environment. The 1984 Bhopal Gas Disaster led to the creation of the Act. In accordance with Article 253 of the Constitution, the Government passed this Act. The legislation gives the government the authority to set national ambient and emission standards, as well as to create policies and procedures for inspecting and verifying pollution sources. It also establishes a framework for pollution in the air, water, and land. Additionally, it gives the government the authority to designate officials to carry out specific tasks and issue directives related to pollution control and mitigation. Safety requirements are another issue that the Act addresses. It gives the federal and state governments the authority to order anybody who is concerned to collect pollution samples for analysis in properly accredited research facilities. Implementing the conclusions made by the United Nations Conference on the Human Environment (UNCHE) is the primary goal of this Act's drafting. The government is given a framework under this 'Umbrella Law' to coordinate the efforts of institutions and laws that are already in place in order to effectively regulate pollution and enhance environmental quality.

6. Public Liability Insurance Act (PLIA), 1991

The Act requires business owners who work with hazardous materials to get insurance policies to cover potential legal responsibilities in the event of an accident and to set up environmental relief funds to address incidents resulting from improper handling of hazardous materials.

7. The National Environment Tribunal Act, 1995

The suggestions of the Rio de Janeiro second Earth Summit, which was sponsored by the UN, served as the basis for this Act. This act's primary goals are to compensate for losses to human health, property, and the environment resulting from industrial accidents and disasters, as well as to provide efficient and prompt relief. This Act states that a person is entitled to damages in the event of death, permanent,

temporary, total, partial, or other injury or illness, loss of mobility resulting from a handicap, medical costs incurred, damage to property, flora, or ecology, etc. The 2010 amendment guarantees that the National Green Tribunal (NGT) takes into account the principles of sustainable development and gives all citizens of the nation equal opportunity to address the tribunal.

8. The National Environment Appellate Authority Act, 1997

This legislation requires the central government to set up the proper authorities for reviewing appeals regarding area limits in which industrial operations are either outlawed or will be conducted under specific safeguards. The Ministry of Environment and Forests established the National Environment Appellate Authority (NEAA) to handle complaints involving the need for environmental approvals in specific restricted regions. The Environment (Protection) Act, 1986 provided certain safeguards, and the National Environment Appellate Authority Act, 1997 established it to hear appeals regarding restrictions on areas in which any industries, operations, or processes, or class of industries, operations, or processes, shall or shall not be carried out.

9. The Biomedical Waste (Management and Handling) Rules, 1998

These regulations impose legal obligations on healthcare facilities to expedite the process of appropriately managing hospital trash, including collection, treatment, segregation, packing, and transportation. Institutions that produce garbage have an obligation to manage it appropriately so as not to harm the environment or public health.

Other than laws there are certain rules made by central government for the protection of environment. The environment (siting for industrial projects) rules 1999, gives specific guidelines about areas where companies are not allowed to sit or where environmental protection precautions must be taken when industries are sitting. The ozone depleting substances (regulation and control) rules 2000 say that no person shall produce any ozone depleting substances. It also prohibits the export and import of ozone depleting substances to or from any country. The biological diversity act of 2002 and the biological diversity rules outline the provisions for maintaining biological diversity, using components sustainably, and distributing benefits fairly and equally when using biological resources and the knowledge that goes along with them. National environment policy 2006 can be considered as the most recent pronouncement of government of India in the conservation procedure. The preservation of vital environmental resources, intergenerational equity, and the security of the poor's means of subsistence are among the main environmental goals of the NEP. Other goals include the integration of the environment into social and economic development, environmental governance, and the improvement of resources for environmental conservation. This strategy advocates for key environmental principles, identifies substantive and regulatory improvements, and encourages the mainstreaming of environmental issues into all development operations. Similarly, national action plan on climate change advocates for key environmental principles, identifies substantive and regulatory improvements, and encourages the mainstreaming of environmental issues into all development operations. There are many laws, rules, and regulations pertaining to the environment in India, and the government should be commended for its efforts to conserve the environment. India has developed environmental regulations over the years that comply with international standards for environmental protection. The rules appear to have been well-crafted with consideration for the nation's diverse geography and culture, and they appear to cover every facet and domain of the environment. When India's involvement in international environmental protection arenas is required, India does not back down.

Environmental Governance in Denmark

Denmark has a decentralized system of environmental governance, meaning that the national, local, and regional levels share responsibility. Efficient management and customized environmental regulations are made possible by this decentralized architecture. The country has a decentralised system of environmental governance, meaning that many aspects of sustainability and environmental protection are managed by local authorities. This strategy makes it possible to handle environmental challenges at the local level with flexibility. It also has strong environmental laws; several European Union directives are transposed under the Environmental Protection Act. This legislative framework guarantees adherence to global norms and serves as a basis for environmental governance. It has set high goals to cut greenhouse gas emissions as part of its commitment to combating climate change. By 2030, the nation wants to have reduced emissions from 1990 levels by 70%. The establishment of a circular economy and measures to mitigate climate change are spearheaded by the Ministry of Environment. Denmark places a high priority on implementing a circular economy, with an emphasis on waste management and resource efficiency. Efforts to decrease environmental impact and encourage circularity are led by the Ministry of Environment and places a focus on monitoring and cooperation in environmental stewardship. The nation is regarded as a front-runner in environmental policy, exhibiting leadership in tackling environmental concerns. It plans regional growth, tracks CO₂ emissions, and works with partners to attain environmental goals. The country's progressive policies and actions make it clear that it is committed to sustainability. Denmark's environmental governance efficiently addresses environmental concerns through a combination of decentralisation, strong regulation, and ambitious climate action. The nation is recognised as a global leader in environmental stewardship due to its dedication to sustainability, emphasis on innovation, and cooperation with stakeholders.

1. Climate act

A major legislative framework designed to combat climate change and lower greenhouse gas emissions is the Climate Act of Denmark. According to the Climate Act, Denmark must cut its emissions by 70% from 1990 levels by 2030. It also seeks to achieve climate neutrality by 2050. It guarantees accountability and continuity in tackling climate change by giving Denmark's climate policies and efforts a legal basis. In order to guarantee advancement towards long-term climate goals, the Act sets rolling targets that permit modifications to be made every five years. Denmark's Climate Act demonstrates the nation's commitment to global climate action by aligning with international commitments. In order to meet the set targets, it highlights how crucial it is to cut carbon emissions in a number of industries, including transportation, energy, and agriculture. Denmark's commitment to addressing climate change is shown in the Climate Act of Denmark, which outlines specific goals, strong legal measures, and continuing systems for monitoring and adjustment.

2. Renewable Energy Policy

In order to lessen reliance on fossil fuels and fight climate change, Denmark's Renewable Energy Policy places a strong emphasis on investment in a range of renewable energy sources and aggressive targets. Denmark wants to get at least 50% of its energy from renewable sources, primarily from wind energy. Significant investment in wind energy, particularly offshore wind farms, has made Denmark a leader in this sector. To promote renewable energy options, the nation places a strong emphasis on efficiency gains and technology advancements. Country uses a variety of renewable energy sources includes wind and solar energy, then bioenergy from agriculture.

3. Air Quality Standards

Denmark monitors and lowers air pollution levels by enforcing strict air quality standard rules. Important facets of these policies consist of policies like revision of Guidelines to maintain efficient pollution management, for that the Danish Environmental Protection Agency (EPA) reviews its guidelines for regulating air emissions from stationary sources on a regular basis. In line with initiatives to enhance air quality, Denmark's Climate Act establishes aggressive goals to cut greenhouse gas emissions. Realising the connection between climate policy and air quality, the country places a strong emphasis on both local and international collaboration in the fight against air pollution.

4. Nature Protection Act

The goal of Denmark's Naturbeskyttelsesloven, or Nature Protection Act, is to protect human living circumstances while protecting the country's natural landscape and ecosystem for sustainable development. The Act's main goal is to protect Denmark's natural landscapes, which include its ecosystems, biodiversity, and scenic spots. 10% of Denmark's land is protected as protected areas under Section 3 of the Nature Protection Act. This includes bogs, lakes, and freshwater meadows, among other areas which possess natural characteristics. The Act creates rules and regulations to stop actions that can endanger the environment or alter natural habitats. It also describes how permissions for activities inside protected areas are obtained. Enforcement procedures guarantee that the Act's terms are followed, encouraging environmental protection and the preservation of animal and plant life.

5. Forest Policy

Sustainable forest management, biodiversity preservation, and climate change adaptation and mitigation are the three main objectives of Denmark's forest policy, which is outlined in the Forest Act. The strategy aims to ensure that forest operations do not deplete resources beyond their potential for regeneration by promoting the sustainable use of natural resources. Biodiversity conservation is the preservation of forest biodiversity, which safeguards the habitats of a wide range of plant and animal species. Denmark's forest strategy sequesters carbon dioxide and adjusts forests to changing climate conditions, which helps to mitigate the effects of climate change. The policy promotes integrated methods to forest management that take into account the social, economic, and ecological dimensions of forestry.

6. Waste management Strategy

In order to reduce its negative effects on the environment and the depletion of its resources, Denmark places a strong emphasis on waste prevention, recycling, and the circular economy. Denmark prioritizes waste prevention strategies to cut waste production at its source and promote environmentally friendly production and consumption methods. To maximise product lifecycles, encourage reuse, and reduce waste output, the Danish government's circular economy action plan directs waste management initiatives. Denmark uses state-of-the-art incinerators to divert municipal waste from landfills and use the energy recovered to produce heat and electricity. To guarantee environmentally responsible waste management techniques, the nation regulates the transboundary movement of waste.

7. Sustainable Agricultural Practices

Denmark employs a range of sustainable farming methods to uphold farming's long-term sustainability and encourage environmental responsibility. Farmers rotate their

crops to strengthen nutrient cycling, lower insect and disease populations, and increase soil health. Cover crops improve soil fertility, minimise soil erosion, and store carbon. Regulations require growing them on thirty percent of cropland. In an effort to improve agricultural sustainability and reduce its carbon footprint, Denmark is investigating regenerative agriculture techniques. Sustainable livestock management techniques are used by Danish farmers, who place a high priority on animal welfare. A lot of Danish farms use rainwater instead of irrigation, which encourages water conservation and lowers the amount of water used for agriculture.

Other than these policies and programmes Denmark government also focuses on chemical regulations which strictly controls the use and disposal of hazardous substances to protect human health and environment. Denmark also established natural parks and protected areas to preserve its natural heritage. Country implements European unions directives to achieve qualitative and quantitative status of all water bodies. Country charges taxes on energy, water and waste designed to encourage environmentally friendly practices. It also provides subsidies for renewable energy projects, energy efficiency improvements and green transportation options.

Similarities and Differences between India and Denmark in Environmental Governance

India and Denmark possess similarities in their policies related to the protection and conservation of environment. Both countries are actively participating in conservative measures to build a world which is free from pollution and all kinds of hazardous materials irrespective of their cultural and geographical differences. The main similarities are as follows:

Commitment to renewable energy: India has set lofty goals for the installation of renewable energy, with plans to build 175 GW by 2022 and 450 GW by 2030. As essential elements of its renewable energy plan, it is concentrating on solar and wind energy. Denmark leads the world in wind energy and hopes to be fossil fuel-free by 2050. Both nations are making large investments in renewable energy in an effort to lower their carbon footprints and fight global warming.

Focus on energy efficiency: Both nations have put laws into place to increase energy efficiency in a number of areas, such as transportation, housing, and industry. These regulations aim to decrease greenhouse gas emissions, cut energy use, and advance sustainable development.

Climate change mitigation and adaptation: The National Action Plan on Climate Change (NAPCC), developed by India, outlines eight missions related to energy efficiency, water conservation, and sustainable development. Denmark's Climate Act establishes specific goals to achieve carbon neutrality by 2050. In an effort to lessen the effects of climate change, both countries are actively participating in international climate agreements like the Paris Agreement.

Pollution control measures: Along with a number of laws to manage trash and minimise water pollution, India has the National Clean Air Programme (NCAP), which aims to lower particulate matter pollution in important cities. As part of its efforts to safeguard the environment and the general public's health, Denmark also enforces stringent laws pertaining to waste management, water pollution, and air quality.

Sustainable transportation: With its National Electric Mobility Mission Plan, India is encouraging the use of electric vehicles (EVs) and offering a number of incentives to do so. As part of its efforts to lower emissions from the transportation sector, Denmark is also advocating for increased usage of EVs, cycling, and public transportation.

Biodiversity conservation and protected areas: Policies and initiatives are in place in both nations with the goal of preserving biodiversity, safeguarding wildlife, and practicing sustainable resource management. This include setting up national parks, protected areas, and endangered species protection initiatives.

International Environmental commitments: A number of international environmental accords and initiatives, including as the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), and the Sustainable Development Goals (SDGs), are signed by Denmark and India.

India is a country which is famous for its unity in diversity. It includes different culture, language, religion, customs, tradition and practices. India is the tiger capital of the world. Similarly, Denmark has several leading industries including food processing, tourism and the production of iron, steel and machinery. So both countries are unique in their characteristics. So they possess differences in their environmental governance policies too. The main differences are as follows:

Economic and developmental context: India is a populous developing nation that faces many obstacles to progress, such as poverty, a lack of access to sanitary facilities and clean water, and the demands of urbanization. Its environmental policies frequently need to strike a balance between environmental sustainability and economic prosperity. Denmark is a tiny, wealthy nation with a robust welfare state and excellent standards of living. Denmark's environmental policies do not have the same financial limitations as those in India, so they may concentrate more on sustainability and innovation.

Renewable Energy and Carbon Neutrality Goals: India still heavily depends on coal for the production of power due to the country's energy demand and the availability of the resource, despite the country's lofty ambitions for renewable energy to lower its carbon footprint and increase energy security. Denmark has made great progress in incorporating wind power into its energy mix and plans to fully switch to renewable energy by the year 2050. Denmark's economy is more developed and its smaller size allows it to switch to renewable energy and carbon neutrality more quickly.

Urbanization and Infrastructure: India is experiencing a rapid increase in urbanisation, along with the associated problems of waste management, traffic congestion, and air pollution. Large metropolitan centers' sustainability must be considered in its policies. Denmark's environmental policies are closely linked to its well-planned urban infrastructure, which includes bicycle-friendly cities, green spaces, and effective public transportation.

Conclusion

India is a developing country with its wide variety of policies for the conservation of nature. India can adopt a wide variety of environmental governance policies from Denmark. India can follow Denmark's lead in wind and solar energy investment and policy assistance. India may benefit from diversifying its renewable energy sources from Denmark's experience with offshore wind energy in particular. Similar projects in India could be inspired by Denmark's stringent building rules and incentives for energy-efficient construction. Significant energy savings may also result from encouraging energy efficiency in industrial operations through financial incentives and technological advancements. Denmark's bike-friendly cities provide an example of how to lower pollution and traffic in urban areas. Urban mobility options in India can include boosting cycling through dedicated lanes and infrastructure, even when obstacles like cultural differences and urban planning exist. Denmark has laws on tax breaks, infrastructure for charging electronic vehicles, and other matters that India should take inspiration from.

India is currently pushing electronic vehicles and it is a developmental strategy. India's quickly expanding cities can learn from Denmark's approach to urban planning, which incorporates green spaces, promotes public transportation, and fosters community living. Strong public awareness and involvement support Denmark's environmental policy. India might gain from involving its people in sustainability projects and strengthening the integration of environmental education into its curriculum. India should follow Denmark's lead in fostering green technology research and development, which would spur innovation in areas like sustainable agriculture, renewable energy, and water conservation. By following models from different countries India can also become a country which highly focus on environmental governance in an effective manner.

References

- Chopra Rajiv (2016) '*Environmental Degradation in India: Causes and Consequences*' International Journal of applied Environmental Sciences, Volume 11, pp.1593-1601
- OECD (2023), "Denmark", in Environment at a Glance Indicators, OECD Publishing, Paris, <https://doi.org/10.1787/f2198edb-en> (accessed on 25 March 2024).
- Legal Guides, Business Reports and Events | ICLG. (n.d.). International Comparative Legal Guides International Business Reports. <https://iclg.com/>
- Pioneers in clean energy. (n.d.). Denmark.dk. <https://denmark.dk/innovation-and-design/clean-energy>.
- Air Pollution Note – Data you need to know. (n.d.). <https://www.unep.org/interactives/air-pollution-note/>
- National nature protection. (n.d.). The Danish Environmental Protection Agency. <https://eng.mst.dk/nature/national-nature-protection>.
- The Forest Act No. 945 - Climate Change Laws of the World. (n.d.). https://climate-laws.org/document/the-forest-act-no-945_b749.
- Towards more sustainable agriculture practices. (n.d.). Danish Crown. <https://www.danishcrown.com/global/sustainability/from-farm-to-fork/farmers/>
- Hjelmar, O. (1996, January 1). Waste management in Denmark. Waste Management. [https://doi.org/10.1016/s0956-053x\(96\)00083-9](https://doi.org/10.1016/s0956-053x(96)00083-9).
- Lemos, M. C., & Agrawal, A. (2006, November 1). Environmental Governance. Annual Review of Environment and Resources. <https://doi.org/10.1146/annurev.energy.31.042605.135621>
- Ambient (outdoor) air pollution. (2022, December 19). [https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health?gad_source=1&gclid=Cj0KCQjwk6SwBhDPArisAJ59GwddbR6Fsdb4heY](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health?gad_source=1&gclid=Cj0KCQjwk6SwBhDPArisAJ59GwddbR6Fsdb4heY)