



A Systematic Review of Environmental Hazards across the Globe: Indian Scenario

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ARTICLE INFO	ABSTRACT
Article History Received 15 th Oct, 2023 Revised 21 st Nov, 2023 Accepted 23, Nov, 2023 Available Online 26, Dec, 2023 ARTICLE ID PHJSSH4000001 KEYWORDS <i>Environmental Hazards, Human Health, Impact, Globe, India, Management</i>	<p>In recent years, environmental protection and preservation, including the upkeep of ecological balance, have emerged as issues of paramount importance. The foundation of a healthy lifestyle is a healthy environment. However, dangerous substances, such as hazardous wastes and poisonous chemicals, have imposed significant strain on the ecosystem. Modern industrialised society's by-products have severely contaminated our air, water, and soil. They've made things far noisier, smellier, and uglier than they should be. The ecosystem can heal itself if given the chance. Toxic, long-lasting, and corrosive qualities of these compounds, however, have essentially wiped out nature's ability to absorb them. However, these activities are seen as necessary for economic growth, therefore they will continue. They are seen as an inevitable consequence of rising living standards, urbanisation, and industrialization. Since the introduction of potentially dangerous industries and processes is widely seen as inevitable, 'sustainable development' necessitates the prompt and careful management, treatment, and disposal of potentially harmful substances.</p>





INTRODUCTION

Climate change, clean water, ocean health, and biodiversity are just few of the interconnected environmental concerns the world is experiencing today. Increased natural resource stewardship, innovative solution implementation, and business support of sustainable development all require fresh corporate initiatives. The UN Global Compact has created a number of frameworks to help businesses incorporate sustainability into their strategy and take action to ensure a resilient future, which has accelerated progress. The social and governance dimensions, as well as the interconnectedness of climate, water, and ocean concerns, are at the centre of our work. Helping businesses increase their positive influence on the Sustainable Development Goals and the lofty targets set by the Paris Agreement is a top priority for us in this Decade of Action. To better recover from the worldwide pandemic and to implement the transformative shift required to prevent global temperature rise to 1.5°C, COP26 this year constitutes a key milestone. The shift to a net-zero, resilient economy will need concerted effort, and we urge companies to do environmental risk assessments, establish and meet lofty environmental goals, and implement ethical business practises. Concerns about the effects of hazardous substances on the environment and human health are particularly pressing in economically growing nations like India. These nations are becoming the primary destination for the waste products of industrialised nations. Actually, developing countries are paying for industrialization but getting none of its benefits. Many developing nations are ill-equipped to regulate potentially harmful drugs because they lack the necessary institutional framework. For poor, powerless emerging nations, this problem takes on catastrophic proportions.

Significance of the study

The study's overarching goal has been to learn how various high-status judicial bodies have come to articulate varying levels of such norms and, by extension, how they have attempted to develop a sensible framework for the regulation of potentially dangerous substances. The study's concept is that hazardous compounds' control and management can help alleviate the threats they represent to human and environmental health. There must be a global effort to combat these drugs because their harmful and hazardous effects do not recognise borders. Therefore, the purpose of this research was to try a comparative examination of environmental law concerning dangerous compounds. This study primarily examines the legal framework in India that governs the handling of potentially dangerous chemicals, but it also discusses the worldwide and regional legal instruments that govern these substances. To ensure that each country can begin its capacity building programmes in unison, the international community should provide adequate support for the efforts being made at the national level. To learn more about how these hazards are regulated and controlled in developed economies, we also analysed the legal standing of the United Kingdom and the United States on dangerous substances. India will be better equipped to deal with the threat posed by hazardous substances, since it will be able to incorporate important elements of these regimes into its own national system. It is important to observe how the United Kingdom and the United States deal with these substances due to their considerable production in both countries and India's close affinity with the English and American legal systems.

This study's central finding is that industrialised nations, operating on the assumption that scientific truth is universal and immutable, adopt and defend the predominance of scientific viewpoints. They prefer that developing nations put their faith in risk assessment theories that



assume risk can be determined in an objective manner. The failure to take a subjective approach to the danger caused by hazardous wastes and chemicals has significant policy ramifications, since risk is essentially a subjective term. Toxic chemical regulation actually started at home, with an emphasis on pesticides in the United States. As a result of extrapolating these figures to a global scale, emerging countries and their new-born industries now find it not only inconvenient but economically unviable to comply with standards developed in the United States.

There is a major issue with noncompliance to environmental regulation because of how it is imposed on impacted interest groups. The impacted parties' actions have been interpreted as deliberate defiance of the law. They are evaluated negatively for violating the expected standards of conduct in their natural habitat. It has not been understood that the good will generated by the statutory framework among the affected interests is as important as the structural form of the framework itself when it comes to ensuring compliance. Numerous research on law enforcement's methods of implementation have demonstrated that compliance is not automatic. The legal framework is crucial in ensuring conformity. Indeed, conformity is intrinsically linked to the consistency of the legal framework. This research argues that a hazy order will have a minimal effect on compliance. Discretionary actions taken by administrators are likely to further weaken compliance. Those in society who are against the law will use this to their advantage.

This research therefore demonstrates that the issue of inconsistency within India's legal framework has not been given the proper amount of attention. The research suggests that both the statute law and the administrative rules are influenced by the norms and structures of internationally recognised legal systems found in advanced nations. The situation in these nations is unique. Their situations couldn't be more dissimilar. When these variations are ignored, the resulting normative framework is incoherent. It is observed that India has not paid enough attention to this issue of incoherence. This research has sought to evaluate the normative framework of the law pertaining to environmental hazardous for coherence and analysis in the hopes of narrowing this chasm.

Environmental Hazards in India

Earthquakes, floods, volcanic eruptions, and other environmental hazards are examples of extreme events generated by natural processes or man's activities that surpass the tolerated magnitude within or beyond specific time limitations, hence making changes impossible and resulting in loss of property and life. The 1980s seemed set to sweep the alarming trend of catastrophic natural disasters into a crisis-filled 1990s, the World Commission on Environment and Development warned. In response, on January 1, 1990, the United Nations General Assembly declared the beginning of the International Decade for Natural Disaster Reduction.

The World Health Organisation defines a disaster as "any occurrence that causes damage, economic distraction, loss of human life, and deterioration in health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community or area?" Both natural and anthropogenic events can qualify as disasters. Natural disasters such as cyclones, floods, draughts, earthquakes, volcanoes, landslides, heat waves, and cold waves can result from any imbalance in the equation between the Earth's resources, stock, and ecology brought on by climatic changes, the Earth's internal movement, and other natural processes. Technological catastrophes include, but are not limited to, the release of lethal industrial pollutants, soil erosion, and nuclear

calamities that result from human-caused technological developments, industrialization, and other forms of development.

Every year, various natural disasters strike different parts of India, making it one of the most disaster-prone countries in the world. Climate, water, and geological factors all have a role in causing natural disasters. High Power Committee on Disaster Management has identified chemical, industrial, nuclear, biological, and unintentional disasters as additional threats alongside natural ones.

Natural catastrophes have killed over three million people and impacted 800 million around the world in the last two decades, with 90 percent of the victims living in poor nations. Out of India's total of 593 districts, 199 are among the country's most disaster-prone areas.

Natural disasters such as earthquakes, cyclones, and floods have always been a problem in India. However, we only have a record of the most significant occurrences of these risks over the past couple hundred years.

Fifty-five percent of India is at risk from earthquakes, eight percent from cyclones, and ten percent from flooding, according to estimates. About 1 in 5 of the country's geographical area is at risk from MSK IX or greater earthquakes, 1 in 4 from MSK VIII or greater, and 1 in 4 from MSK VII or greater. Magnitude 7.5 or greater earthquakes have struck the Andaman Islands, the Kutch region of Gujarat, Himachal Pradesh, Jammu and Kashmir, North Bihar, and the Northeastern States. Peninsular India has had an earthquake with a maximum magnitude of 6.5 and an MSK intensity of VIII.

Between 1737 and 1977, 263 cyclonic storms hit the East Coast, with 92 of them being classified as severe. This area spans just 50 km. Twenty cyclonic storms have hit the coast of Gujarat during the same time span, although only thirteen have hit the remainder of the West Coast. It's worth noting that over 10,000 people have lost their lives due to 19 big cyclones.

Every year in India, natural disasters kill an estimated 5,000 people, affect another 59 million, and damage an estimated 1% (or more than a million) of the country's housing stock, according to the World Disasters Report. The economic health of the country takes a major hit due to physical losses and the associated expenditures of repair and rehabilitation. huge damages due to house collapses and huge loss of human life are still fresh in the thoughts of the people as a result of the earthquakes in Gujarat, Latur, and Kashmir. Cloudburst floods, flash floods, landslides, and debris flows due to dam breaches are common causes of disaster in the Indian Himalayas. Every year, there is at least one incident reported from the Himalayas. In the Higher Himalayas, cloudbursts are prevalent, but they tend to stay within the confines of small towns.

Important environmental hazards and disasters

1. Drought: If drought is not controlled and lasts for more than three years in a row, it might cause a famine-like condition. Both the economy and people's social life suffer when there is a drought. Poverty, water shortages, hunger, population displacement, migration, and social unrest are all made worse as a result. Relative prices and commodity prices are both impacted by decreased crop yield. Professor Amartya Sen has provided valuable insight into how widespread hunger and malnutrition may exist with abundant food supplies. A considerable increase in death rates is caused by a sustained drop in food grain intake, which is in turn caused by a deficit in food grain production.



2. **Floods:** Due to its location on the Indian subcontinent, India has a higher risk of flooding than most other countries. This occurrence is commonplace in India's coastal areas. One-fifth of all flood-related fatalities occur in India. Cloudburst floods, flash floods produced by landslides and debris flow, and dam failures have all played a role in countless disasters in the Indian Himalayas. At least one such occurrence is often documented each year in the Himalayas. The Higher Himalayas are notorious for their frequent cloudbursts, which are often restricted to small valleys. Heavy rains on August 14, 1978, for instance, caused landslides that killed 69 people in the Guptkashi area. Approximately 205 people, including scores of pilgrims coming from Mount Kailash and Lake Manasarovar in Tibet, perished when the whole town of Malpa along the Kali River was washed away.
3. **Tsunami:** Tsunamis that were caused by an earthquake in the depths of the Indian Ocean on December 26, 2004 ravaged the coasts of Indonesia, Sri Lanka, Thailand, and India. Over 10,000 people died in Southern India and the Andaman and Nicobar Islands, contributing to the overall death toll of almost 160,000 across South Asia. Aftershocks were still being felt on the Andaman and Nicobar Islands, where 4,000 people had died, mostly in the Nicobar area. It was reported that 2,600 more persons went missing.
4. **Cyclone:** Strong winds and heavy rain are the hallmarks of a cyclone, a kind of severe marine storm. As they make their way inland, cyclones pose a threat to low-lying coastal regions. Cyclone-caused wind gusts may reach speeds of up to 400 kilometres per hour. Between 1937 and 1977, 263 cyclonic storms hit the East Coast, with 92 being classified as severe. This area is located along a 50 km broad stretch. These cyclones often hit the East Coast and the Bay of Bengal. Twice in the recent two decades, in November 1977 and May 1990, Andhra Pradesh was hit by devastating cyclonic storms. Similar devastation occurred in Orissa in October 1999 when a super storm with wind gusts of 270-300 km/h and persistent heavy rains for three days hit the region. Over seven lakh structures were totally wiped down, while another 13 lakh were severely damaged. Human and animal casualties, widespread property damage that forces many people to evacuate their homes, and heavy financial losses are all common results of cyclones.
5. **Earthquakes:** An earthquake is a powerful natural catastrophe produced by the rapid displacement of the Earth's crust due to the quick release of stored tension. Quakes happen when the Earth's crust moves suddenly. Charles F. Richter created the Richter scale in 1935 to quantify the amount of energy generated during an earthquake. Due to the long time scale of these geological phenomena, science has not been able to successfully forecast the date and location of earthquakes in advance despite decades of research. An example is the devastating earthquake that hit Bhuj, Gujarat, on January 26, 2001, leaving over 20,000 people dead and another ten times that number without access to food, shelter, and other essentials. A powerful earthquake hit Jammu & Kashmir in October 2005, wreaking havoc on both India and Pakistan.

Contemporary Challenges across the world

A new approach to environmental health management is required in light of the current crisis and the impending threats we face. The urge for a new strategy on health, environment, and climate change stems from the fact that current approaches have provided the groundwork, but have



not proven sufficient for sustainably and efficiently lowering environmental hazards to health and establishing health-supportive and enabling environments. About a quarter of all fatalities and disease burden worldwide can be attributed to avoidable environmental dangers, totaling to at least 13 million deaths annually. Human health and development depend on people living in a clean, safe environment. More than 90% of the world's population breathes in filthy air, and almost 3000,000,000 still rely on polluting fuels like solid fuels or kerosene for lighting, cooking, and heating. This accounts for 7,000,000 avoidable deaths annually. More than 800,000 people die needlessly every year because of unclean water, poor sanitation, and hygiene, even though these problems affect more than half of the world's population. Environmental interventions including drainage, irrigation systems, and dam construction are strongly associated to an increase in malaria and other vector-borne illness cases. More than a million workers lose their lives every year due to unsafe working conditions, and another million lose their lives due to toxic exposure.

If the upstream drivers of disease are not effectively addressed, the sustainability of health systems will be threatened. Spending on health care currently accounts for about 10% of global GDP, but only a small fraction of that goes towards prevention. Diarrheal diseases, respiratory infections, and especially noncommunicable diseases induced by the environment are a significant burden on health care systems and national family budgets due to their high prevalence and recurrence rates. The enormous burden of disease produced by environmental threats to health continues to be underreduced because of insufficient financial and human resources committed to health promotion and primary prevention. Costs will continue to be transferred to the healthcare system and individuals if pricing systems do not account for the whole range of consequences associated with policies, technologies, and goods. To effectively address today's environmental health issues, we need to look beyond traditional disease-focused treatments and instead focus on minimising the negative effects of underlying determinants of health. Given the intricate interaction of elements at the level of borders between countries, societies, and the individual, it is improbable that single-determinant approaches can produce the promised improvements in health equity and well-being. To tackle the upstream causes of disease, which are frequently defined by policies in critical areas other than health, we need more integrated approaches. Antimicrobial and insecticide resistance are growing challenges that could have serious consequences for public health if we continue to ignore them and rely too heavily on medications and pesticides. The interconnected nature of environmental health problems is beyond the capacity of current governing institutions, particularly those at the municipal level. The overall value of policies will be misrepresented as long as they are established without taking into account the effects they may have on health and health systems.

A new strategy for health, environmental protection, and social justice is required under the 2030 Agenda for Sustainable Development. By tying together progress in the social and economic spheres with efforts to safeguard the environment, improve people's health, and reduce inequality, this approach offers comprehensive backing for addressing health determinants at the time when key policies are being defined or decisions are being made, allowing for more lasting, preventative action to be taken. More sustainable economic activities and progress on global, cross-border goods for health, like clean air and a stable climate, should be possible as a result of the commitment to



sustainable consumption and production patterns and the tackling of misuse of natural resources and large-scale waste generation.

India's Environmental Issues - Key takeaways

- Pollution, air and water pollution, degradation of the natural environment, and waste management are the most pressing environmental challenges in India right now.
- Deforestation and desertification are further environmental concerns that have an impact on farming, food production, and people's ability to make a living.
- The government is having trouble dealing with waste, which is a major source of pollution and a potential threat to public health.

Heat waves and melting glaciers are both consequences of global warming. Extreme weather and erratic precipitation are also results of the monsoon season being thrown off.

- The National Green Tribunal establishes environmental rules, such as the "polluter pays" principle, which states that those responsible for pollution must also bear the costs of eradicating it.

Social as well governmental Implications

Current global and international disaster governance attempts owe a great deal to the 1990s United Nations International Decade for Natural disaster Reduction. The approach to meet the Millennium Development Goals includes developing early warning systems, encouraging governments to include disaster risk reduction in planning processes, and tackling the vulnerabilities of megacities. The International Strategy for Disaster Reduction (ISDR) was developed by the United Nations as a direct result of the work done during the International Decade for Natural Disaster Reduction. The International Strategy for Disaster Reduction (ISDR) Hyogo Framework for Action (HFA) was agreed during the 2005 World Conference on Disaster Reduction in Kobe, Japan. The HFA's strategy for lowering catastrophe risks was based on the Yokohama Strategy and Plan of Action for a Safer World. The goals of the HFA are to (a) elevate disaster preparedness to the highest policymaking level, (b) better understand and predict potential disasters for better early warning systems, and (c) promote a culture of safety and resilience through education and training. The ISDR collaborates with the European Union, the African Union, the Association of Southeast Nations, the Pan American Health Organisation, the Secretariat of the Pacific Community's Applied Geoscience and Technology Division, and other regional agencies to carry out the HFA. The World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR) and the ISDR work together to reduce disaster risk and aid in recovery. Global assessments of disaster risk reduction efforts, such as the Global Assessment Report on Disaster Risk Reduction, and funding for capacity-building initiatives, such as the Climate and Disaster Resilience Initiative, are all products of the International Strategy for Disaster Reduction (ISDR). The International Strategy for Disaster Reduction (ISDR) is in charge of the Global Platform for Disaster Risk Reduction (GPDRR), which has been around since 2007, as well as a number of regional platforms. Many national and international institutions work closely together, and they have made it a priority to integrate catastrophic risk reduction and development activities. There has been a rise in interest in recent years in the issues of climate change, risk, and disaster readiness. To measure the success of these programmes, empirical studies are required. The World Bank



recognises that natural catastrophe vulnerability might increase as a result of development programmes.

The ADPC is a regional organisation whose goal is to strengthen Asia-Pacific disaster governance institutions and improve their preparedness, response, and recovery efforts. Established in 1986 with major support from the United Nations Development Programme, ADPC was first conceived as a project of the Asian Institute of Technology in Bangkok. It's been helping people as its own entity since 1999. Part of its goal is to educate, train, and strengthen the capacity of government and non-government organisations throughout the hazards cycle, and another part is to include disaster risk reduction and climate change adaptation into development planning. There have been many contributors to the ADPC throughout the years, including the United Nations Development Programme, the Japanese International Cooperation Agency, the United States Agency for International Development, the governments of Australia, Denmark, Finland, Norway, and Sweden, and the Asian Development Bank. Some of the nations that have collaborated with them to lessen catastrophe risk include India, Vietnam, the Lao People's Democratic Republic, Thailand, and Cambodia. The Committee on Disaster Management of the Association of Southeast Asian Nations is another partner. Community-based disaster risk management, the development of decision-support tools for disaster risk reduction, aiding countries in conducting hazard and vulnerability assessments and modelling, and the creation of strategies to address the unique vulnerabilities of megacities, rapidly expanding secondary cities, and small island developing states are all central to the ADPC programme. The ADPC is a forum for regional governments and NGOs to work together. It has taken part in the Asian Ministerial Conferences on Disaster Risk Reduction, as well as the International Strategy for Disaster Reduction (ISDR). The ADPC assisted in establishing the Asian Institute of Technology as the headquarters for the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) in the wake of the 2004 Indian Ocean earthquake and tsunami.

Environmental Policy in India

As part of its environmental strategy, the Indian government has passed a number of environmental laws. According to Article 51-A of India's Directive Principles of State Policy, every Indian has a moral obligation to care for and preserve the country's forests, lakes, rivers, and wildlife, as well as to treat all other sentient beings with kindness and respect.

India has agreed to uphold the CBD agreement's global biodiversity protections by signing on as a party. Before the CBD was passed, there was less of a uniform environmental regulatory framework in India. The native wildlife was protected by the Indian Wildlife Protection Act of 1972. After then, it was revised multiple times. Conservationism is the cornerstone of the National Forest Policy from 1988. The government passed the Foreign Trade (Development and Regulation) Act of 1992 and the Environment (Protection) Act of 1986 to control the spread of endangered species and other forms of biodiversity.

OBJECTIVES AND STRATEGIES OF NATIONAL ENVIRONMENT POLICY (2006) OF INDIA

While various policies have existed for forests, water, and environmental pollution in India, the experience gained from implementing these policies over the years has underscored the

necessity for a comprehensive approach to environmental management within the country. Consequently, a new National Environment Policy was introduced in 2006.

Objectives of the National Environment Policy (2006):

The National Environment Policy of 2006 is guided by the following objectives:

1. Conservation of Critical Environmental Resources:
 - Aimed at safeguarding and preserving critical environmental resources and invaluable natural and man-made heritage that are indispensable for sustaining livelihoods and ensuring the well-being of society.
2. Inter-generational Equity:
 - Focused on ensuring the responsible use of environmental resources to fulfill the present needs and aspirations while also safeguarding the ability of future generations to meet their own requirements.
3. Efficiency in Environmental Resources Use:
 - Geared towards optimizing the utilization of environmental resources by reducing their consumption per unit of economic output and minimizing adverse environmental impacts on society.
4. Environmental Governance in Resource Management:
 - Committed to applying the principles of good governance, including transparency, rationality, accountability, cost and time reduction, and public participation, in the management of environmental resources.
5. Enhancement of Resources:
 - Emphasizes the utilization of appropriate technology, traditional knowledge, managerial expertise, and social capital for the conservation and enhancement of environmental resources.
6. Livelihood Security for the Poor:
 - Aims to secure equitable access to environmental resources for economically disadvantaged tribal communities, who rely heavily on these resources for their sustenance.
7. Integration of Environmental Concerns into Socio-economic Development:
 - Seeks to integrate environmental considerations into policies, plans, programs, and projects related to socio-economic development, thus ensuring a harmonious balance between development and environmental sustainability.

Major Suggestions to Control Environmental Hazards

The study provides recommendations for the control and management of hazardous chemicals based on a thorough examination of the relevant laws and regulations, both domestic and international. What follows is a quick synopsis of their recommendations. These recommendations are made with an eye towards the Indian setting:

1. In Article 21 of the Indian Constitution, the right to "life" should unambiguously include the right to a healthy environment and to sustainable development.
2. Two competing goals, development and environmental sustainability, need to be balanced. Research has shown that progress and environmental protection are not opposites but rather points on a same continuum. In fact, they enhance one another. Mechanisms should be developed to avoid any potential conflicts between the two.



3. Toxic chemical and waste regulation legislation and administrative procedures have been weakened by the tension between development and sustainability. The normative structure is just as intricate. The real difficulty, however, is in carrying out the plan. The primary enforcement bodies responsible for ensuring the correct regulation and control of hazardous substances are the Central Pollution Control Board and the State Pollution Control Boards, both of which were established by Indian statutes. These departments have been "wholly remiss" in carrying out their statutory duties, and practically nothing can be done about it without some sort of judicial intervention. The execution of the system leaves much to be desired, and there may be numerous reasons for the bureaucratic inertia and refusal to act. The efficiency and effectiveness of law enforcement must be guaranteed. Constant monitoring is essential. The 'polluter-pays' principle, which imposes absolute obligation on those responsible for environmental risks, and the precautionary approach, which includes the principle that prevention is better than cure, should be codified into law.
4. The idea of waste minimization is the most popular approach to effective waste management all around the world. It's important to take measures to cut down on waste creation from where it starts. Reusing materials and creating new clean technologies are examples of such methods. Due to the negative impacts on human health and the environment, as well as the depletion of scarce natural resources, waste disposal—whether through landfilling, incineration, composting, dumping at sea or other water bodies, or sending / transporting waste to some other destination—must be a last resort in any waste management policy.
5. Persistence, toxicity, and bioaccumulation should be prioritised when regulating chemicals, all of which should be regulated based on their intrinsic features (hazard). All aspects of production, usage, and disposal must be considered alongside the examination of inherent hazardous qualities. The ultimate objective should be to switch to chemicals that pose no known risk to humans or the environment.
6. Extensive safeguards have been established in India to prevent harm to people and the environment from the use of hazardous materials and manufacturing methods. However, there is no cohesion between theory and practise in the legal framework, which seems to have developed independently by many organisations with divergent philosophies, technology cultures, and worldviews. The current legal framework is disjointed and fragmentary. The urgent and pressing requirement of the hour is the implementation of a complete and overarching legislation on the subject.
7. The current legal system regarding dangerous chemicals can be greatly enhanced by adopting the aforementioned proposals. The poisonous, long-lasting, and corrosive nature of these compounds poses a risk to international safety. They are polluting the water supply and other natural resources, in addition to having direct negative effects on the environment and human health. It's caused a very worrying scenario that needs joint action on the global, regional, and national levels to fix. It calls for deliberate cooperation amongst all relevant organisations. The goal of this research is to pave the way for a sustainable future free of harmful substances through the dedicated and rapid implementation of an effective legislative framework.

Conclusion

India has made significant progress towards solving environmental problems. It has established institutional mechanisms to monitor and implement its strict environmental laws. India is one of only three nations in the world to have established a Green Tribunal to specifically handle environmental lawsuits, and the NEP acknowledges the usefulness of using market forces and incentives as part of the regulatory toolset. The Government of India is considering forming the National Appraisal and Monitoring Authority (NEAMA) to conduct environmental assessments as part of its environmental governance efforts. During the current 11th Five Year Plan, the government issued regulations to promote an integrated and inclusive approach to coastal zone planning and the sound management of hazardous wastes, as well as a number of other critical policies (such as a revised river conservation strategy and the National Biodiversity Plan) and a Wildlife Crime Control Bureau to bolster preexisting conservation measures for endangered species like tigers. India's first comprehensive National Action Plan to combat climate change was released in June 2008 by the Prime Minister's National Council on Climate Change. India established an Expert Group on Low Carbon Growth prior to Copenhagen to determine the most effective means of achieving its goal of lowering carbon intensity by 20–25 percent from 2005 levels by 2020.

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