International Journal of Political Science (IJPS)

Volume 7, Issue 2, 2021, PP 13-32 ISSN 2454-9452

https://doi.org/10.20431/2454-9452.0702004

www.arcjournals.org



Environmental Governance in India: Issues and Challenges

Dr. Shridevi S. Suvarnakhandi*

Assistant Professor, Dept. Of Political Science, B.L.D.E. Association's Law College Jamkhandi, Bagalkote District, Karnataka, India

*Corresponding Author: Dr. Shridevi S. Suvarnakhandi, Assistant Professor, Dept. Of Political Science, B.L.D.E. Association's Law College Jamkhandi, Bagalkote District, Karnataka, India

Abstract:

Environmental governance is a concept in political ecology and **environmental** policy that advocates sustainability (sustainable development) as the supreme consideration for managing all human activities—political, social and economic.

Institutional as well as non-institutional mechanisms for ensuring that the long term sustenance of environmental resources does not get hampered therefore assume greater importance. In this context, improving the governance process of development is considered as a means of improving performance on the above. This can primarily emanate from the setting up of new institutions, from, the strengthening of existing institutions, from providing a policy framework and from undertaking the initiatives that lead to the conservation of the environment and its resources. This paper discusses the concepts of governance and good governance concerning environmental management first; it then provides an overview of select environmental governance measures undertaken by government departments in a catalogued manner. It discusses the initiatives under the broad categories of commitments to global treaties, transparency and accountability, sensitive ecosystems, conservation projects, water resource management, research, education and training capacity building. It thereby provides an abstract state of environmental governance.

Keywords: Governance, environmental management, decision making, institutions

1. HISTORY¹

The history of environmental governance in post-independent India started 25 years after Independence when the then Prime Minister, Indira Gandhi, returned from the United Nations (UN) Conference on Human, Environment and Development in Stockholm in 1972.

A National Environmental Planning and Co-Ordination Committee was formed by the Prime Minister with BP Pal (FRS). In 1972, the Central Pollution Control Board was set up followed by the state boards. The department of environment came into existence on November 1, 1980, followed by state departments. Environmental laws on water (1974), air (1981) and forest conservation (1981) were passed, as also the umbrella act of Environment Protection (1986). An Environment Policy and Strategy Statement was issued in the year of the UN Conference on Environment and Development in 1992. Environment Impact Assessment for 32 sectors became compulsory by a notification passed in 1992. Environment approval committees were formed for each sectoral assessment and all power was vested with the Centre. In 1996, India became a nation to follow the environmental governance system with a series of further controlling notifications on coastal zone management, hill development, disposal of wastes (biomedical, plastic, hazardous). Public Interest Litigation provided justice through the Supreme Court and high courts.

However, now, everything seems to move in a reverse direction. For the first time, there is no separate Union Minister for Environment, Forest and Climate Change (MoEFCC). A 25 per cent budget cut from the central government for MoEFCC was the next step. The Government of India is shrugging off the responsibilities of ensuring development with conservation of the environment. Expectations ran high when the Right to Forest, Right to Food, Right to 100 days of work and Right to Information Bills were passed. But now the biological process of "regressive metamorphosis" is becoming evident.

https://www.downtoearth.org.in/blog/environment/environmental-governance-india-s-changing-scenario-59534

The latest one came from the draft notification to amend the environmental impact assessment (2006) in 2014 and 2016. The amendments increase the power of state governments to grant environmental clearance to development projects, particularly aiming at the controversial sectors of mining and river valley projects. Now, district environmental approval committees are to be formed as per the 2016 amendment. Major changes can be seen when states are given the power to clear river valley projects with 5000-50,000 hectares (ha), changing the earlier law of 2000-10,000 ha. Does the question remain as to how efficiently the state-level approval committee can function? Do they function independently outside the political influence of the ruling government?

Further, it can be noted that the environment ministry is planning "to move the Supreme Court against the National Green Tribunal to exempt the real estate sector from environmental laws". The notification on December 9, 2016, of the MoEFCC, exempted real estate projects up to 1,50,00 square metres of the built-up area from environmental impact assessment. The said amendment notification is seen as a ploy to avoid the provision of environmental assessment. The green bench stated that the construction industry sector emits 22 per cent of India's total annual carbon dioxide emissions which will impact the country's commitment to the Paris Protocol to reduce carbon dioxide emissions. Further, the local municipalities and municipal corporations were asked to form environmental committees for overseeing environmental aspects of constructing buildings and real estate projects (Jayanta Basu, *The Telegraph*, January 17, 2018). The competence of such bodies especially to function without influencing the ruling political system will be highly questionable.

It all started with denotifying forests from within the declared protected area network and how the country is gradually advancing towards one single goal—development at any cost. India is to honour 17 Sustainable Development Goals (SDG) as a signatory to the UN declaration.

Governing our planet's rich and diverse natural resources is an increasingly complex challenge. In our globalised world of interconnected nations, economies and people, managing environmental threats, particularly those that cross political borders such as air pollution and biodiversity loss, will require new global, regional, national and local responses involving a wide range of stakeholders.

2. DEFINING ENVIRONMENTAL GOVERNANCE²

For this review, environmental governance is synonymous with interventions aiming at changes in environment-related incentives, knowledge, institutions, decision making, and behaviours. More specifically, we use "environmental governance" to refer to the set of regulatory processes, mechanisms and organizations through which political actors influence environmental actions and outcomes. Governance is not the same as government. It includes the actions of the state and, in addition, encompasses actors such as communities, businesses, and NGOs. Key to different forms of environmental governance is the political-economic relationships that institutions embody and how these relationships shape identities, actions, and outcomes. International accords, national policies and legislation, local decision-making structures, transnational institutions, and environmental NGOs are all examples of the forms through which environmental governance.

Governance includes government, business and civil society, and emphasizes whole system management. To capture this diverse range of elements, environmental governance often employs alternative systems of governance, for example, watershed-based management.

It views natural resources and the environment as global public goods, belonging to the category of goods that are not diminished when they are shared. This means that everyone benefits from, for example, a breathable atmosphere, stable climate and stable biodiversity.

Public goods are non-rivalrous—a natural resource enjoyed by one person can still be enjoyed by others—and non-excludable—it is impossible to prevent someone from consuming the good (such as breathing). Public goods are recognized as beneficial and therefore have value. The notion of a global public good thus emerges, with a slight distinction: it covers necessities that must not be destroyed by one person or state.

The non-rivalrous character of such goods calls for a management approach that restricts public and private actors from damaging them. One approach is to attribute an economic value to the resource. Water is an example of this type of good.

_

² https://www.researchgate.net/publication/228122528_Environmental_Governance

This exhaustive and thorough book on environmental governance in India examines the multi-layered interaction between society and nature in the light of the role of the State, the judiciary and civil society.³

Governance of the natural environment has, arguably, emerged as one of the most complex challenges faced by humanity. Consequently, the environment has been increasingly incorporated in the agenda at all levels of governance, for both developed and developing countries. Environmental Governance in India: Issues and Challenges trace this environment—development discourse and address the limitations, obstacles and possibilities for equitable, just and sustainable development.

A pioneering text focusing on the State as a vital factor in environmental and sustainability politics, this book not only reveals the conflicts, problems and dilemmas of urban environmentalism but also suggests a viable strategy to maintain a balance between ecology and equity.

Kev Features:

- Issues of environment and governance wrote in a lucid and jargon-free language.
- Urban environmentalism in India was elucidated based on an empirical study.
- Exploration of social issues in environmental governance.
- Environmental governance explained from both global and Indian perspectives.

3. Environmental Policy & Environmental Policy In India⁴

Environmental policy is the commitment of an organization to the laws, regulations, and other policy mechanisms concerning environmental issues. These issues generally include **air and** water pollution, waste management, ecosystem management, maintenance of biodiversity, the protection of natural resources, wildlife, and endangered species.

Concerning environmental policy, the importance of implementation of an eco-energy-oriented policy at a global level to address the issues of global warming and climate changes should be accentuated. Policies concerning energy or regulation of toxic substances including pesticides and many types of industrial waste are part of the topic of environmental policy.

This policy can be deliberately taken to direct and oversee human activities and thereby prevent harmful effects on the biophysical environment and natural resources, as well as to make sure that changes in the environment do not have harmful effects on humans.

It is useful to consider that environmental policy comprises two major terms: Environment and Policy.

Environment refers to the physical ecosystems, but can also take into consideration the social dimension (quality of life, health) and an economic dimension (resource management, biodiversity).

The policy can be defined as a "course of action or principle adopted or proposed by a government, party, business or individual".

Thus, the environmental policy focuses on problems arising from human impact on the environment, which retroacts onto human society by having a (negative) impact on human values such as good health or the 'clean and green environment.

Environmental policy refers to any course of actions that is deliberately take (or refrain from) to manage human activities to **prevent or mitigate harmful effects on natural resources, the ecosystem or nature**. In general, the environmental policy aims to ensure that man-made changes to the environment do not carry harmful effects on human beings or animal species.

The rationale for governmental involvement in the environment is market failure in the form of forces beyond the control of one person, including the free-rider problem and the tragedy of the commons.

An example of an externality is when a factory produces waste pollution which may be dumped into a river, ultimately contaminating water. The **cost of such action is paid by society-at-large** when they must clean the water before drinking it and is external to the costs of the factory.

-

³ https://www.sagepub.com/hi/nam/environmental-governance-in-india/book265219

⁴ https://lotusarise.com/environmental-policy-in-india-upsc/

The free-rider problem is when the private marginal cost of taking action to protect the environment is greater than the private marginal benefit, but the social marginal cost is less than the social marginal benefit. The tragedy of the commons is the problem that, because no one person owns the commons, each individual has an incentive to utilize common resources as much as possible. Without governmental involvement, the commons is overused. Examples of tragedies of the commons are overfishing and overgrazing.

Environmental policy instruments are tools used by governments to implement their environmental policies. Governments may use different types of instruments. For example, economic incentives and market-based instruments such as taxes and tax exemptions, tradable permits, and fees can be very effective to encourage compliance with environmental policy.

Bilateral agreements between the government and private firms and commitments made by firms independent of government requirements are examples of voluntary environmental measures. Another instrument is the implementation of greener public purchasing programs.

Several instruments are sometimes combined in a policy mix to address a certain environmental problem. Since environmental issues have many aspects, several policy instruments may be needed to adequately address each one. Furthermore, a combination of different policies may give firms greater flexibility in policy compliance and reduce uncertainty as to the cost of such compliance.

Government policies must be carefully formulated so that the individual measures do not undermine one another, or create a rigid and cost-ineffective framework.

Overlapping policies result in unnecessary administrative costs, increasing the cost of implementation. To help governments realize their policy goals, the <u>OECD</u> Environment Directorate collects data on the efficiency and consequences of environmental policies implemented by the national governments. The United Nations Economic Commission for Europe, through UNECE Environmental Performance Reviews, evaluates progress made by its member countries in improving their environmental policies.

Policy Principles for Environmental Protection⁵

(A) The Polluter Pays Principle (PPP):

For the last two decades, many economists have suggested that firms discharging polluting effluents to the environment should somehow be made to pay a price for such discharges related to the amount of environmental damage caused. OECD has suggested the Polluter Pays Principle (PPP) as a general basis for the environmental policy. It states that if measures are adopted to reduce pollution, the costs should be borne by the polluters.

The **OECD Council** defines the Polluter Pays Principle thus. "The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called Polluter Pays Principle". The essential concern of this principle is that polluters should bear the costs of abatement without subsidy.

The Polluter Pays Principle, as interpreted by the Supreme Court of India, means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental degradation. Thus, it includes environmental costs as well as direct costs to people or property.

Remediation of the damaged environment is part of the process of sustainable development and as such the polluter is liable to pay the cost to the individual sufferers as well as the costs of reversing the damaged ecology. The application of this principle depends upon the interpretations, particular cases and situations. This principle has brought more controversial discussions during the Rio Earth Summit 1992.

The South has demanded more financial assistance from the North in combating the environmental degradation in the South. There are practical an implication on the allocation of economic obligations with environmentally damaging activities, particularly with liability and the use of economic instruments.

⁵ https://lotusarise.com/environmental-policy-in-india-upsc/

(B) The User Pays Principle—(UPP):

It is considered a part of the PPP. The principle states that all resource users should pay for the full long-run marginal cost of the use of a resource and related services, including any associated treatment costs. It is applied when resources are being used and consumed.

(C) The Precautionary Principle (PP):

The main objective of the precautionary principle is to ensure that a substance or activity posing a threat to the environment is prevented from adversely affecting the environment, even if there is no conclusive scientific proof of linking that particular substance or activity to environmental damage. The words environmental damage. The words 'substance' and 'activity are the result of human intervention.

The Rio Declaration in its Principle 15 emphasizes this principle wherein it is provided that where there are threats of serious or irreversible damage. Lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

4. International Policy Instruments To Tackle Global Environmental Externalities⁶

The use of available policy instruments will only lead to a cost-effective global outcome if certain conditions are met.

- First, unless individual countries undertake cost-effective domestic greenhouse policy measures that are compatible with the goal of global efficiency, the policy instruments adopted internationally will not lead to that goal.
- Second, each country is free to choose its instrument or combination of instruments to meet its international obligations. But the choice of international instruments will, to some extent, dictate the choice of policy instruments at the domestic level.

Some of the international policy instruments are:

- 1. International Carbon Tax,
- 2. Tradable Quotas, and
- 3. Tradable Pollution Permits:

(1) International Carbon Tax:

If countries agree to apply the same level of domestic greenhouse or carbon taxes (harmonized domestic taxes), marginal abatement costs would tend to be equalized among countries. Such an the agreement may have to include side payments from rich to poor countries if the latter are to be encouraged to participate.

In the case of a domestic carbon tax imposed by an international agreement, the national commitment to impose the tax will also vary because perspectives on global warming vary from one country to another. If a country has signed such an agreement under international pressure, that country can make the carbon tax ineffective by reducing existing energy taxes, by taxing substitutes for fossil fuels like hydroelectricity, by providing subsidies to fossil-fuel-energy intensive products, and by lax enforcement of the tax. A global carbon tax imposed by an international agency, on the other hand, will impinge on national sovereignty and will therefore be difficult to negotiate.

If global carbon taxes are levied as producer taxes instead of consumer taxes, tax revenue can be collected in fossil fuel producer countries instead of consumer countries. This will shift the burden between the two types of countries. The distributional effects of such taxes may be unacceptable to many countries and if used, can give rise to retaliatory trade policy measures.

An alternative type of international policy to reduce emissions can be an agreement to levy a uniform international tax on greenhouse or carbon emissions in each of the participating countries. The total international tax revenue can be shared among the participating countries according to rules established in the agreement.

⁶ https://lotusarise.com/environmental-policy-in-india-upsc/

One possibility is that a carbon tax can be imposed on nation-states themselves by an international agency. In this case, the agreement can specify not only the tax rate but also a formula for reallocating the revenues from the tax. Cost-effectiveness will demand that the tax rate be uniform across all countries but the reallocation of revenue will not have a direct bearing on cost-effectiveness.

As an alternative, the agreement can stipulate that all countries should levy the same domestic carbon tax, called a harmonized domestic carbon tax. In both cases, the tax rate that achieves the agreement emission target can only be struck through trial and error. The tax rate will also need to be adjusted over time as economic conditions change and as more scientific information becomes available.

Uniform tax rates are required for reasons of cost-effectiveness. But the resulting distribution of costs may not conform to principles of equity and justice. For this reason, transfer of resources may be required. In principle, the two versions of an international tax agreement can involve the same actual financial transfers, although the transfer principles may differ. Under the harmonized tax system, the agreement can involve fixed lumpsum payments from rich to poor countries.

(2) Tradable Quotas:

Under an international tradable emission quota scheme, all coalition countries will be allocated a quota for emission. A quota can be either a right to repeated emissions i.e., one tonne of carbon per year, or a right to emit a given volume once only. Thus a quota system can comprise either quotas forever or quotas for a specified period of, say five-year or some combination of both. In the case of either type of quota, any unused right to emit during a given year can be kept and used at a later time.

In each period, countries will be free to buy and sell quotas on an international exchange on the spot or forward market. Time-limiting the quotas will probably be necessary not only to account for uncertainty about the extent of the enhanced greenhouse problem but also to give credibility to the system. This will also reduce the risk of large countries gaining market power on the quota trade market.

An efficient international tradable quota system presupposes a market organization for quota trade. In the case of a system for the control of emission of CO2, quotas will have to be dominated according to the carbon content of the fossil fuel used. If quotas are to be established for the full range of greenhouse gases, it would be necessary to weigh gases according to their estimated and agreed on global warming potential.

(3) Tradable Pollution Permits:

An international tradable quota scheme can co-exist with domestic permit schemes within each country. Some countries may choose to meet their emission targets by some other means, such as taxes or regulatory systems. In the case of a domestic tradable permit scheme, a national government will issue emission permits to wholesale dealers in fossil fuels or producers and importers of fossil fuels and allow them to trade on a domestic permit market.

The government can also allow permit holders to trade directly in an existing international market. Alternatively, to the extent that both international quota and domestic permit markets exist for a particular country, the government can trade in the international market and set a definite domestic limit on the volume of domestic permits for some future period.

The government can choose either of the two ways to distribute permits to individual firms. In the first case, firms will be given shares of the total permit volume based on some historical record ('grandfathering') such as their recent fossil fuel sales. The second alternative will be for the government to auction permits. Some combination of these two approaches may also be feasible.

The two approaches differ primarily in two respects. First, 'grandfathering' implies a 'transfer' of wealth equal to the value of the permits to existing firms, whereas when permits are auctioned by the government, this wealth is transferred to the government. The government will collect revenue similar to that from a domestic tax on firms producing the same volume of emissions.

As with tax receipts, auction revenues can be used to reduce pre-existing distorting taxes. Second, since grandfathering improves the wealth of such firms, it may keep them in business longer than otherwise. This allocation approach may reduce the rate of entry of new firms and slow technological change.

To date, most tradable permit systems have made use of forever (or eternal) permits. However, there are several reasons for preferring a system of time-limited permits in the case of climate change applications. First, to the extent that permits may be initially grandfathered, the negative effects mentioned above will be mitigated.

If emitters are given sufficient time to adjust, subsequent allocations of permits can be made by auction. Second, potential future policy changes about emission targets in response to new information can cause significant problems for permit price formation if eternal permits are used. An alternative approach would be for the government to retain ownership of the permits and lease them to firms for a fixed period.

The schemes under international tradable quota systems, which have so far been applied on a small scale only under the Montreal Protocol for the international CFC production quota trade and the CFC consumption quota trade within the European Union, there is considerable experience with the use of tradable permit schemes within countries.

Sustainable Policy Approach to Check Environmental Degradation⁷

Economic growth always brings the risk of environmental damage, as it puts increased pressure on environmental resources. But the policymakers guided by the concept of sustainable development will necessarily work to assure that developing economy remain firmly attached to their ecological roots and these roots are protected so that they may support growth over the long run.

Environmental protection is thus inherent in the concept of sustainable development. It describes a process in which the natural resource base is not allowed to deteriorate. It emphasizes the role of environmental quality and environmental inputs in the process of raising real income and the quality of life. Thus sustainable development is closely linked to economic development. Sustainable development includes various policy measures to check the environmental degradation and reduce the costs of economic growth.

1. Reducing Poverty:

Such development projects should be started which provide greater employment opportunities to the poor. The government should expand health and family planning services and education to reach the poor that will help reduce population growth. Further, making investments in providing civic amenities like the supply of drinking water, sanitation facilities, alternate habitats in place of slums, etc. will not only improve welfare but also the environment.

2. Removing Subsidies:

To reduce environmental degradation at no net financial cost to the government, subsidies for resource use by the private and public sectors should be removed. Subsidies on the use of electricity, fertilisers, pesticides, diesel, petrol, gas, irrigation water, etc. lead to their wasteful use and environmental problems. Subsidies to capital intensive and highly polluting private and public industries lead to environmental degradation. Removing or reducing subsidies will bring both economic and environmental benefits to the country.

3. Clarifying and Extending Property Rights:

Lack of property rights over excessive use of resources leads to degradation of the environment. This leads to overgrazing on common or public lands, deforestation, and over-exploitation of minerals, fish, etc. Clarifying and assigning ownership titles and tenure rights to private owners will solve environmental problems.

Places where the use of common lands, forests, irrigation systems, fisheries, etc. are regulated and rules for their proper use are laid down by the community, the ownership rights should be specified in the administrative records.

4. Market Based Approaches:

Besides regulatory measures, there is an urgent need for adopting market-based approaches for the protection of the environment. They aim at pointing to consumers and industries about the costs of

⁷ https://lotusarise.com/environmental-policy-in-india-upsc/

using natural resources in the environment. These costs are reflected in the prices paid for goods and services so that industries and ultimately the consumers are guided by them to reduce air and water pollution.

The Market Based Instruments (MBIs) approach is used in both developed and developing countries. MBIs are of two types: quantity-based and piece based. They are in the form of environmental taxes that include "pollution charges (emission tax/pollution taxes), marketable permits, depositor fund system, input taxes/product charges, differential tax rate and user administrative charges and subsidies for pollution abatement equipment for air and water resources."

5. Regulatory Policies:

Regulatory policies also help in reducing environmental degradation. Regulators have to make decisions regarding price, quantity and technology. In making decisions, they have to choose between the quantity or the price of pollution or resources use or technologies.

The regulating authority has also to decide whether policies should target the environmental problem directly or indirectly. It lays down technical standards and regulations and charges on air, water and land pollutants. Regulators should be impartial in applying environmental standards to both public and private sector polluters or resources users.

6. Economic Incentives:

Like regulatory policies, economic incentives relate to pricing, quantity and technology. Incentives are usually in the form of variable fees to resources users for the number of pollutants in the air, water and land use. They are given rebates if less waste or pollution is generated than the emission standards laid down.

7. Trade Policy:

Trade policy with the environment has two implications: first, concerning domestic policy reforms, and second, relating to international trade policy. Domestic trade policy emphasizes the establishment of less polluting industries away from the cities and the use of environment-friendly processes for polluting industries by adopting cleaner technologies.

As regards the relation between international trade and environmental quality is concerned, controversy has been going on as to whether liberalized trade causes environmental degradation. The controversy leads to the conclusion that overall trade liberalization is likely to produce negative environmental externalities, but also some environmental gains."

The former does not imply that free trade should be stopped. Rather, such cost-effective policies should be adopted that optimize externalities. Environmental degradation from free trade should be reduced by strict domestic policy measures based on the "polluter pays principle". It is better to insist on the foreign company to transfer clear technology and assist in cleaning the environment for existing industries.

8. Public Participation:

Public awareness and participation are highly effective to improve environmental conditions. Conducting formal and informal education programmes relating to environmental management and environmental awareness programmes can go a long way in controlling environmental degradation and keeping the environment clean. For instance, the scheme of eco-labelling of products helps consumers to identify environmentally friendly products.

In Japan, there are consumer co-operatives that popularise green products which are recyclable, biodegradable, rechargeable, ozone friendly and unleaded. As a further step, firms, industries and other establishments in some countries have to disclose in their Annual Reports the extent to which they are adopting environmental friendly measures.

Public participation can also render costless and useful assistance in Afforestation, conservation of wildlife, management of parks, improvements of sanitation and drainage systems, and flood control. The use of indigenous institutions and local voluntary organizations can render much help in educating the masses about the harmful effects of environmental degradation and the benefits of keeping the environment clean.

9. Participation in Global Environmental Efforts:

There are many international conventions and agreements on environmental protection and conservation which every country is expected to follow. They include the **Montreal Protocol** regarding the phasing out of ozone-depleting chemicals.

The **Basel Convention** relates to the control of the transboundary movement and disposal of hazardous wastes. Among others, there is the **Rio Declaration on Environment and Development** and the **Agenda 21** which is the operational programme for sustainable development.

Then, there are the **GATT Clauses on Environment**. Not all countries are signatories to the various agreements and conventions. There is the threat of trade sanctions against countries that do not honour agreements relating to biodiversity protection or greenhouse gas emissions but many countries do not adhere to them.

Environmental Policy of India⁸

Environment policies of the Government of India include legislation related to the environment.

In the Directive Principles of State Policy, Article 48 says "the state shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country"; Article 51-A states that "it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures."

India is one of the parties to the Convention on Biological Diversity (CBD) treaty. Before the CBD, India had different laws to govern the environment. The Indian Wildlife Protection Act 1972 protected biodiversity. It was amended later multiple times. The 1988 National Forest Policy had conservation as its fundamental principle. In addition to these acts, the government passed the Environment (Protection) Act 1986 and Foreign Trade (Development and Regulation) Act 1992 for control of biodiversity.

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

There are different policies for forests, water, and environmental pollution. But the experience in implementing these policies over the years has brought out the need for a comprehensive policy approach to the management of the environment in the country. Therefore, a new national environment policy was announced in 2006.

Objectives of National Environment Policy (2006):

The following are the objectives of the national environment policy:

- 1. **Conservation of Critical Environmental Resources:** To protect and conserve critical environmental resources and invaluable natural and man-made heritage which are essential for life-supporting livelihoods and welfare of the society.
- 2. **Inter-generational Equity:** To ensure judicious use of environmental resources to meet the needs and aspirations of present and future generations.
- 3. **Efficiency in Environmental Resources Use:** To ensure efficient use of environmental resources in the sense of reduction in their use per unit of economic output and to minimize adverse environmental impacts on society.
- 4. **Environmental Governance in the Management of Resources:** To apply the principles of resources. To apply the principles of good governance (i.e. transparency, rationality, accountability, reduction in costs and time, and public participation) to the management of environmental resources.
- 5. **Enhancement of Resources:** Appropriate technology and traditional knowledge, managerial skills, and social capital will be used for the conservation and enhancement of resources.
- 6. **Livelihood Security for the Poor:** To ensure equitable access to environmental resources for poor tribal communities, which are most dependent on environmental resources for their livelihood.

⁸ https://lotusarise.com/environmental-policy-in-india-upsc/

7. **Integration of Environmental Concerns for Socio-economic Development;** to integrate environmental concerns into policies, plans, programs, and projects for socio-economic development.

Strategy for Conservation of Environmental Resources

The following strategy will be adopted for the conservation of environmental resources in India:

1. Land Degradation:

The following steps will be taken to reduce land degradation:

- Encourage adoption of science-based and traditional sustainable
- land-use practices through research and development.
- Pilot-scale demonstrations and farmers' training.
- Promote reclamation of wasteland and degraded forest land through formulation and adoption of multi-stakeholder partnerships involving the land-owning agency, local communities and investors.
- To reduce desertification through action plans.

2. Forests:

To formulate an innovative strategy for the increase of forest and tree cover from the present level of 23 per cent of the country's land area, to 33 per cent in 2012 through afforestation of degraded forest land, wasteland, and tree cover on private or revenue land.

Key elements of the strategy would include:

- 1. The implementation of multi-stakeholder partnerships involving the forest department, local communities, and investors, with clearly defined obligations and entitlements for each partner, following good governance principles, to derive environmental livelihood, and financial benefits.
- 2. Rationalization of restrictions on the cultivation of forest species outside notified forest areas.
- 3. Enabling farmers to undertake social and farm forestry where their returns are more favourable than cropping.
- 4. Universalization of the Joint Forestry Management System throughout the country.
- 5. Formulating an appropriate methodology for reckoning and restoring the environmental values of forests that are unavoidably diverted to other uses.
- 6. Giving legal recognition of the traditional rights of forest-dwelling tribes and provide long-term incentives to the tribals to conserve the forests.

3. Wildlife:

In respect of wildlife conservation, the following steps would be pursued:

- 1. Expanding the Protected Area Network of the country. It must be ensured that the overall area of the network in each biogeographic zone would increase in the process.
- 2. Paralleling multi-stakeholder partnerships for afforestation. Further, formulating and implementing similar partnerships for enhancement of wildlife habit in conservation and community reserves.
- 3. Encouraging eco-tourism at wildlife sites.
- 4. Implementing measures for captive breeding and release into the wild identified endangered species.

4. Biodiversity:

According to the National Environment Policy, a large-scale exercise has been already completed for providing inputs towards a National Biodiversity Action Plan. However, the following measures would be taken to protect biodiversity at the national level.

- 1. Strengthen the protection of biodiversity hot spots.
- 2. Pay attention to the potential impacts of development projects on biodiversity resources and natural heritage.
- 3. The genetic material of threatened species of flora and fauna must be conserved on priority.
- 4. Conferring intellectual property rights for traditional knowledge.

5. Wetlands:

Wetlands, natural and man-made, freshwater or brackish, provide numerous ecological services. They provide habitat to aquatic flora and fauna. But now wetlands are under threat from drainage and conversion for agriculture and human settlements, besides pollution.

The key strategy for action will include the following steps:

- 1. To set up a legally enforceable regulatory mechanism for identified valuable wetlands to prevent their degradation and enhance their conservation.
- 2. To formulate and implement sustainable tourism strategies for identified wetlands through multistakeholder partnerships involving public agencies, and local communities.
- 3. To take explicit account of impacts on wetlands of significant development projects during environmental appraisal of such projects.

6. Conservation of Man-made Heritage:

Man-made heritage reflects the pre-history, ways of living and culture of people. In the case of India, such heritage is at the core of our national identity. At the same time, considerable economic value, and livelihoods may be derived from the conservation of man-made heritage and their sustainable use.

The following action plans would be required for their sustainable use.

- 1. In setting ambient environmental standards, especially for air quality, the potential impacts on designated heritage sites must be taken into account.
- 2. Integrated regional development plans should be drawn up with the participation of the local community for shifting polluting activities and waste far away from sites.
- 3. Impacts on designated heritage sites must be considered at the stage of developing the terms of reference for environmental impact assessments of the projects.

7. Environmentally Sensitive Zones:

Environmentally sensitive zones may be defined as areas with identified environmental resources with incomparable values, which require special attention for their conservation. To conserve and enhance these resources, without impeding legitimate socio-economic development of these areas, the following actions will be taken.

- 1. Identify and give legal status to Environmentally Sensitive Zones in the country.
- 2. Formulate area development plans for these zones on a scientific basis with adequate participation by the local communities.
- 3. Create local institutions for the environmental management of such areas.

8. Strategy for Sustainable Mountain Development:

Mountain ecosystems play a key role in providing forest cover, feeding perennial river systems, conserving genetic diversity, and providing an immense resource base for livelihoods through sustainable tourism.

There has been a significant adverse impact on mountain ecosystems by way of deforestation, submergence of river valleys, pollution of freshwater resources, despoiling of landscapes, degradation of human habitat, loss of genetic diversity, the retreat of glaciers, and pollution.

Keeping in view, the following action plan for sustainable mountain development would be taken up:

1. Adopting best practice norms for infrastructure construction in mountain regions to avoid or minimize damage to sensitive ecosystems and despoiling of landscapes.

- 2. Encouraging cultivation of traditional varieties of crops and horticulture by promotion of organic farming and enabling farmers to realize a price premium.
- 3. Promoting sustainable tourism through the adoption of best practice norms for tourism facilities and access to ecological resources.
- 4. Developing strategies or particular unique mountainscapes.

9. Strategy for Sustainable Coastal Resources:

Coastal environmental resources provide habitats for marine species, which in turn comprise the resource base for large numbers of fisherfolk, protection from extreme weather events, a resource base for sustainable tourism, agricultural and urban livelihoods.

In recent years, there has been significant degradation of coastal resources, for which the proximate causes include poorly planned human settlements, improper location of industries and infrastructure, pollution from industries, and settlements, and over-exploitation of living natural resources.

In keeping with these adverse effects on coastal resources, the following measures would be taken:

- 1. To the mainstream, the sustainable management of mangroves into the forestry sector regulatory regime, ensuring that they continue to provide livelihoods to local communities.
- 2. To disseminate available techniques for regeneration of coral reefs, and support activities based on the application of such techniques.
- 3. To embody considerations of sea-level rise in coastal management plans.
- 4. India has passed Coastal Regulation Zone (CRZ) notification in February 1991 and Integrated Coastal Zone Management (ICZM) to ensure protection to the coastal environment in India. Their rules and regulations are firmly founded on scientific principles. Specific projects should be consistent with the approval of ICZM plans.

10. Strategy for Conservation of Freshwater Resources:

The freshwater resources comprise the river systems, groundwater and wetlands. Each of these has a unique role and characteristic linkage to other environmental entities.

River Management:

The following comprise elements of an action plan for river management:

- 1. Promoting integrated approaches to the management of river basins by the concerned river authorities, considering upstream and downstream inflows and withdrawals by reason.
- 2. Monitoring authorities will check pollution loads and natural regeneration capacities to ensure adequate flows and adherence to water quality standards.
- 3. To consider and mitigate the impacts on river flora and fauna.
- 4. To consider mandating the installation of water-saving closets and taps in the building by-laws of urban centres.

Groundwater:

Groundwater is present in underground aquifers in many parts of the country. The water table has been falling rapidly in many areas of the country in recent years. This is largely due to withdrawal for agricultural, industrial, and urban use over annual recharge.

In urban areas, apart from withdrawals for domestic and industrial use, housing and infrastructure such as roads prevent sufficient recharge. In addition, some pollution of groundwater occurs due to leaching of stored hazardous waste and use of agricultural chemicals in particular pesticides.

The following action plans are required in this direction:

- 1. The efficient use of groundwater would accordingly, require that the practice of non-metering of electricity supply to farmers be discontinued.
- 2. To promote efficient water use techniques such as sprinkler or drip irrigation among farmers.

- 3. To support practices of contour bunding and revival of traditional methods for enhancing groundwater recharge.
- 4. To mandate water (rainwater) harvesting in all new constructions in relevant urban areas to enhance groundwater recharge.
- 5. To support research and development in cost-effective techniques suitable for rural drinking water projects.

Policy for Pollution Abatement:

The following measures will be adopted to control the pollution at the local and national levels:

1. Water Pollution:

The following measures will be adopted to control water pollution:

- 1. To enhance reuse of treated sewage and industrial wastewater before final discharge to water bodies.
- 2. To set up common effluent treatment plants on a cost-recovery basis.
- 3. To take explicit account of groundwater pollution in pricing policies of pesticides and fertilizers.
- 4. To develop a strategy for strengthening regulation regarding the impact of shipbreaking on marine resources.
- 5. To promote research and development in the field of low-cost technologies for sewage treatment.
- 6. To develop a public-private partnership for setting up effluent and sewage treatment plants.

2. Air Pollution:

The following are elements of an action plan for air pollution:

- To accelerate the national programs of dissemination of improved fuelwood stoves, and solar cookers for rural women. To provide incentive-based instruments for controlling air pollution
- To provide adequate investments in low pollution mass transport systems with the help of public and private partnerships. To give greater legal standing to local communities and NGOs to undertake monitoring of environmental compliance, to promote reclamation of wastelands by energy plantations.

3. Noise Pollution:

The following would comprise elements of an action plan on abatement of Noise Pollution:

- 1. Make appropriate distinctions between different environments in terms of setting ambient noise standards, e.g. rural versus urban, educational and hospital establishments versus other areas, daytime versus night time in residential areas; areas in the vicinity of rail, road and airport infrastructure etc.
- 2. Distinguish between noise standards and protection measures in the context of occupational exposure and environmental exposure to third parties.
- 3. Formulate noise emissions norms i.e. loudspeakers, automobile horns and fireworks ratings appropriate to various activities o ensure that exposure levels to third parties who are not participants in the activity do not exceed prescribed ambient standards.

Encourage dialogue between state/local authorities and religious/ community representatives on the adoption of enforceable specific durations, timings for use of loudspeakers or fireworks.

4. Soil Pollution:

The following are elements of an action plan on soil pollution:

- 1. Develop and implement strategies for clean-up of pre-existing toxic and hazardous waste dumps, in particular, in industrial areas and reclamation of such lands for sustainable use.
- 2. Strengthen the capacities of local bodies for segregation, recycling, and reuse of municipal solid wastes.

- 3. Develop and implement strategies for recycling, reuse, and final environmentally benign disposal of plastics wastes, including through the promotion of relevant technologies, and use of incentive-based instruments.
- 4. Promote organic farming of traditional crop varieties through research.
- 5. Develop transparent, voluntary, and science-based eco-labelling schemes.
- 6. Give legal recognition to, and strengthen the informal sector systems of collection and recycling of various materials.
- 7. Develop public-private partnerships for setting up and operating secure landfills and incinerators for toxic and hazardous wastes, both industrial and biomedical.

Legal Framework

There are already many laws to deal with the problems of **environmental pollution in India**. These are

- Environment Protection Act 1986,
- the Water (Prevention and Control of Pollution) Act 1974,
- the Water Cess Act 1977 and The Air (Prevention and Control of Pollution) Act 1981.

The law in respect of management and conservation of forests and biodiversity is contained in the

- Indian Forest Act 1927,
- the Forest (Conservation) Act 1980,
- the Wild Life (Protection) Act 1972 and
- the Biodiversity Act 2003.

➤ GRADUAL EVOLUTION SINCE 1972 9

Firmly speaking, environmental governance in India, the institutional and regulatory framework, evolved and shaped largely by certain major events, a series of judicial pronouncements and by the necessity of fulfilling commitments to Multilateral Environmental Agreements. Since 1972 an extensive network of environmental legislations has grown in the country including the 1976 landmark Constitutional (42nd) Amendment whereby "protection and improvement of environment and safeguarding of forests and wildlife" were included in Directive Principles of State policy [3] and further to "protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for the living creatures" was made a fundamental duty of every citizen of India. India was perhaps the first country in the world, which, by an amendment in the Constitution inserted two such articles. They reflect the State's concern and duty of citizens towards the environment. Before 1972, various existing enactments such as the Indian Penal Code, Code of Criminal Procedure, Factories Act, Indian Forest Act etc., however, contained provisions for the regulation and legal action concerning environmental pollution. Nonetheless, these were scattered, inadequate and not effective.

The country witnessed a tragic incident like the 1984 Bhopal Gas Tragedy. Soon after that, in 1985, the country witnessed another tragic incident caused by the leakage of Oleum Gas from one of the units of Shriram Food & Fertilizer at Delhi, a subsidiary of Delhi Cloth Mills Ltd. Extensive destruction caused by the Bhopal Gas Leak led to the creation of a full-scale Ministry of Environment and Forest on December 3, 1984, from the earlier Department of Environment, which until then, was working under the Ministry of Science and Technology. In the wake of Bhopal Tragedy, the Parliament also enacted the much-awaited Environmental (Protection) Act in 1986.

However, the historic judgment in M.C. Mehta v. UOI [5] which came up before the Court following the oleum gas leak widened the scope of environmental laws in the country. The Hon'ble Supreme Court evolved a new principle of absolute liability in this case. The court observed:

⁹https://www.researchgate.net/publication/338952158_Modern_Environmental_Governance_and_India_An_An alytical_Construct

"Where an enterprise is engaged in a hazardous or inherently dangerous activity and harm results to anyone on account of an accident in the operation of such hazardous or inherently dangerous activity resulting for example, in the escape of toxic gas, the enterprise is strictly and liable to compensate all those who are affected by the accident and such liability is not subject to any of the exceptions which operate vis-a-vis the principle of strict liability..." Thus, certain principles of law concerning the environmental issues were also laid down by the judiciary as and when the cases relating thereto have been brought before it. Judiciary walked into the domain mainly through the orders passed by the Supreme Court in PIL petitions, barring some cases where suo moto notice was taken. The 1991 judgment of the Supreme Court in Charan Lal Sahu v. UOI (popularly known as the Bhopal Gas Leak case) extended the scope for judicial action in matters relevant to the environment by widening the scope and extent of the right to life under Article 21 of Constitution to include the healthy and pollution-free environment as a fundamental right.

In the Bichri case, five factories were engaged in the manufacturing of highly toxic Hyaluronic Acid (H-Acid) in Bichri village in the Udaipur district of Rajasthan. The Supreme Court found the handling of these factories was hazardous for human health and the environment and therefore, ordered their immediate closure and applying the "polluter pays principle", ordered the polluting factories to pay costs and restore the ecology of the Bichri village.

The Supreme Court further in Vellore Citizens' Welfare Forum v. UOI, made the concept of sustainable development, including the principle of inter-generational equity as an integral part of the law of the land. The Court based its orders on the "precautionary principle" and "polluter pays principle" of the 1992 Rio Declaration. The Supreme Court in its 1999 landmark judgment in the Motor Vehicle Pollution case prescribed stricter emission standards based on the international norms (Euro-I and Euro-II) and led to the introduction of some measures such as catalytic converters, CNG, and lead-free and low sulphur diesel.

The Supreme Court again in its 1999 judgment in Andhra Pradesh Pollution Control Board v. M.V. Nayudu observed that there is a need for separate environment courts and asked the Law Commission to undertake a study on the issue.

In 2000, in Narmada Bachao Andolan v., the Supreme Court observed: "...Water is the basic need for the survival of human beings and is part of the right to life and human rights as enshrined in Article 21 of the Constitution of India ..." Recently in the Felling of Trees in Aarey Colony case, the Bombay High Court on a petition filed before it had on October 4 refused to

Declare Aarey Colony as forest and declined to quash the Mumbai municipal corporation's decision to allow felling of over 2600 trees to set up a metro car shed in the zone for a metro project. The Supreme Court, however, has taken suo moto cognizance of the matter on a letter addressed to CJI and held an urgent hearing of the case. The Court on October 7 passed an order that no more trees be cut and status quo to be maintained until further order.

Environmental Policy and Constitutional Provisions in India¹⁰

Powers over the environment are assigned to different tiers of the Indian Government. The division of environmental policy-making and allocation of environmental functions amongst the Central, State and Local Governments is regulated by the Indian Constitution. Let us see how the Indian constitution governs the relations between the Central, State and Local Governments, especially

Regarding environmental issues. Union and State Governments India, a Union of States, has a federal system of governance. The power of governance is shared between the Union Government and the State Governments.

The Indian Constitution governs the legislative and administrative relations between the Union and the States. While the Union Parliament enjoys the power to legislate for the whole or any part of the country, the State legislatures are empowered to make laws only for their respective States. However, State legislatures, enjoying plenary powers, are not delegates of the Union Parliament.

Both, the Union Parliament and the State legislatures derive their powers from the Indian Constitution. The division of Governmental powers is made concerning three lists given in the

¹⁰ https://www.ecology.edu/environmental-governance.html

Seventh Schedule to the Constitution. The list I or the Union List contains 97 subjects over which Parliament has exclusive power to legislate. These include defence, foreign affairs and environmentally relevant subjects such as atomic energy and mineral resources; regulation and development of interstate rivers and river valleys; highways; shipping and navigation in national highways; major ports; airways, aircraft and air navigation; regulation of mines and mineral development; development of oil fields etc. The State legislatures have exclusive power to legislate for 66 subjects enumerated in List II or known as the State list.

The environmental subjects over which State legislatures can legislate are public health and sanitation; agriculture; communication; preservation, protection and improvement of stock and prevention of animal diseases; water; land; etc. Under List III or Concurrent List, Parliament and State legislatures have overlapping, concurrent and shared jurisdiction over 52 subjects ranging from forests, protection of wild animals, and mines and mineral development to population control and family planning minor ports, factories and electricity. The State legislatures have full powers to legislate for subjects specified in the Concurrent List. But this power is subject to an important limitation, namely that the provisions of the State law should not conflict with any of the provisions of the Union law on that subject. This is to say that if a State law relating to a concurrent subject is conflicting and therefore repugnant to a Union law relating to that very subject, then the Union law will prevail and the State law shall, to the extent of such inconsistency and repugnancy, be void. There is one exception to this rule. If a State law on a concurrent subject is inconsistent with a prior Union law on that same concurrent subject, then the State law shall prevail in that State and overrule the Union law in the applicability to that State only, if the State law has received presidential assent. Again, there are a few Articles in the Constitution where the legislative power is specifically and exclusively reposed in the Parliament. In such cases, the distribution of powers based on the three lists is not applicable. Article 262 confers exclusive power on Parliament to enact a law providing for the adjudication of any dispute or complaint concerning the use, distribution or control of waters of, or in, any inter-state river or river valley.

In exercise of the power conferred by Article 262, the Indian Parliament enacted The Inter-State Water Dispute Act, 1956. And the jurisdiction of all Courts, including the Supreme Court, is barred to such disputes, which are to be settled by the Tribunal set up under The Inter-State Water Dispute Act, 1956. Another important provision in the Indian Constitution, tilting the balance in favour of the Union, is Article 248. This Article confers the residuary power of legislation on Parliament. It grants exclusive power to Parliament to make law on any subject matter not covered by the State or Concurrent lists.

In addition, under **Article 249** of the Constitution, Parliament is also empowered to legislate in the national interest on matters covered by the State list. And, if there is any inconsistency between the law made by Parliament under Article 249 and law made by the State legislature, the law made by Parliament shall reign supreme. Further, Parliament can enact laws on State subjects for those States whose legislatures have consented to such Central legislation. Thus, though water is a State subject,

The Water [Prevention and Control of Pollution] Act of 1974 was enacted by Parliament, according to consent resolutions passed by 12 State legislatures. To legislate on environmental matters, the Indian Parliament has relied upon yet two other constitutional provisions. These provisions are Article 253 and Article 51(c).

Article 253 empowers Parliament to make laws for implementing any treaty, agreement or convention with any other country/countries or for implementing any decision made at any international conference, association or other body.

Article 51(c) mandates that the State shall endeavour to foster respect for international law and treaty obligations. These two Articles, therefore, legitimize the Parliament to pry open List-II and enact laws on any entries contained in it provided it is necessary for implementing the treaty obligations of India. Two major and vital Indian environmental laws, namely, The Air [Prevention and Control of Pollution] Act of 1981 and The Environmental [Protection] Act of 1986, have been enacted under these Constitutional provisions. The Preambles to both these laws State that the statutes are enacted to implement the decisions reached at the United Nations Conference on Human Environment held in Stockholm in 1972.

Similarly, the National Environmental Tribunal Act of 1995, The National Environment Appellate Authorities Act, 1997 and The Biodiversity Act, 2002 were passed by the Indian

Parliament under the Rio Summit of 1992. The United Nations Conference on Human Environment also gave rise to the Constitutional (42nd Amendment) Act, 1976. The Amendment expanded the list of concurrent subjects by introducing a new entry Population Control and Family Planning and two entries Forests and Protection of Wild Animals and Birds were shifted from the State List to the Concurrent List. These changes have resulted in giving more powers to Parliament to legislate on environmental issues. Consequently, though the environmental powers are distributed between the Union and States, the Union does enjoy a dominant role in environmental policymaking.

The Constitutional (42nd Amendment) Act of 1976 also resulted in the inclusion of Article 48A and Article 51A (g) in the Constitution. Article 48A casts an obligation on the Indian State not only to protect but, more importantly, to improve the environment and to safeguard the forests and wildlife of the country. Article 51A (g) imposes a fundamental duty on the Indian citizen to protect and improve the natural environment, including forests, lakes, rivers and wildlife, and to have compassion for living creatures. Therefore, the duty to protect and enhance the quality of the environment in India is the duty of the Union, States and the citizens. The Division Bench of the Supreme Court directed the Central and State Governments and local authorities to introduce cleanliness week when all citizens, including members of the executive, legislature and judiciary, should render free personal service to keep their local areas free from pollution. Local Government

The Indian Constitution focuses mainly on Centre-State relations. Till 1992, it hardly talked about local Government, except in Article 40 in Part IV of the Constitution. This Article directs that State shall take steps to organize village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-Government. Local Government and village administration is a subject in the State list. Hence, it is the States which have to set up local Governments. Consequently, local Governments are completely under the jurisdiction and control of their respective State Governments. They derive their powers, functions and jurisdiction from their State Governments and not from the Constitution itself. This is to say that though Local Governments enjoy a statutory position and are an integral part of national Government, no specific powers have been conferred upon them by the Constitution. The constitutional allocation of functions/subjects is between the Union and the States and not amongst Union, States and Local Governments.

The Seventh Schedule contains the Union List and State List but no Local List. In 1992, Constitutional (73rd and 74th Amendment) Acts were passed, inserting Parts IX and IX-A in the Constitution. Part IX [Articles 243-243(0)] deals with panchayats17 and Part IXA [Articles 243(P)-243(Za)] relates to municipalities.

The 73rd and 74th Constitutional Amendments added XI and XII Schedules to the Constitution. While XI Schedule distributes powers between the State legislature and the panchayat; XII Schedule distributes powers between the State legislature and the municipality. Both Schedules contain environmental subjects. The panchayat can handle agriculture; land improvement and soil conservation; minor irrigation, water management and watershed development; animal husbandry; fisheries; social forestry; rural housing; drinking water; fuel and fodder; electricity and nonconventional energy sources. The municipality can undertake town planning; regulation of land-use and construction of buildings; roads and bridges; water supply for domestic, industrial and commercial purposes; public health, sanitation, solid waste management; urban forestry, protection of environment and promotion of ecological aspects; slum improvement and up-gradation; provision of urban amenities and facilities such as parks and gardens; cattle ponds and prevention of cruelty to animals; and regulation of slaughterhouses and tanneries. It warrants noting that the XI and XII Schedules merely list suggested environmental functions for panchayats and municipalities. The States are not obliged to devolve all or some of these listed functions on the panchayats and municipalities.

However, local Governments do perform some environmental functions such as public health and sanitation, garbage collection and sewage. But there is considerable variation across the Indian States in the range and nature of environmental functions discharged by the panchayats and municipalities. Hence, the Actual role of local Governments in environmental policy and management is very weak. Municipal Council, Ratlam v. Vardhichand is the first landmark Indian decision where a statutory obligation of a civic body towards the protection of the environment was categorically acknowledged.

The Supreme Court compelled the municipality to either fulfil its obligation of providing a clean environment or face the consequence of the closure. Rejecting financial inability as a ground for avoiding statutory obligation, the Court reprimanded: a responsible municipal council constituted for the precise purpose of preserving public health cannot run away from its principal duty by pleading financial inability. Decency and dignity are non-negotiable facets of human rights and are the first charge on local self-governing bodies. Since then the Indian judiciary has risen to the occasion. Adorning the mantel of an ombudsman it has not hesitated in reminding the local authorities of their constitutional duty to provide an unpolluted environment, and on occasions has even chided them for dereliction of their duties.

In the Ganga pollution case, where the pollution of Ganga was affecting the life, health and ecology of the entire Indo-Gangetic plain, the summit court admonished that although Parliament and State legislatures have enacted many laws imposing duties on the Central and State bodies and municipalities for preventing water pollution, many of these provisions have just remained on paper. Directions of this judgement were sent to all the municipalities of the towns situated on river Ganga. Hence, despite some unitary features, the Indian Constitution does reflect strong federal characters in matters relating to the environment.

> Continued commitments to national and international treaties signed in the past 11

Global Environment Facility

A good number of initiatives have been undertaken within the broad national and international commitments towards sustainable development. The Global Environment Facility (GEF) is an international cooperative financial mechanism that provides grants and low-interest loans to developing countries to help them carry out programmes to relieve pressures on global ecosystems. India has also begun receiving assistance for the projects under it, which are under various stages of implementation and completion. The Ministry of Environment and Forests has formulated the National GEF Strategy to facilitate the diagnosis of various problems and to evolve an effective mechanism for planning, formulating, implementing, monitoring and coordinating GEF projects in the country. An Empowered Committee has been set up for the identification of GEF projects, formulation, implementation and monitoring for GEF activities in the country.

Clean Development Mechanism

India has set up the National Clean Development Mechanism (CDM) authority, which started functioning in 2003 and approved 25 projects from a sustainable development point of view. Climate Technology Bazaar was organized to showcase the environmentally sound and climate-friendly technologies from developed countries and India in the fields of renewable energy, energy from waste, resource conservation and energy efficiency etc. India is also a signatory of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change.

Montreal Protocol Treaty

India is also a signatory of the Montreal Protocol Treaty and it established the Montreal Protocol Multilateral fund for approving investment and non-investment projects of replacing Ozone Depleting Substances (ODS) from the atmospheric environment. Several activities were undertaken to bring about awareness regarding the harmful effects of ODS, particularly through the joint Workshops held with State Environment Department and Pollution Control Boards in Six States and four Union Territories. The National Phase-out plan for production and consumption of CFC was approved and the CFC phase-out projects in foam, commercial refrigeration and aerosol sectors have been approved. Likewise, the National Refrigeration & Air Conditioning Service Sector Strategy & Policy and Customs Training Strategy were prepared, submitted and also approved.

6. CONCLUSION 12

Thus, Stockholm Conference marked a watershed in the evolution of humanity's relationship with the earth and global concern about the environment. The conference's motto of "One Planet" became

 $^{^{11}} https://www.researchgate.net/publication/256058810_Review_of_Environmental_Governance_in_India_Catal$ oguing_of_the_Current_Initiatives

¹²https://www.researchgate.net/publication/338952158_Modern_Environmental_Governance_and_India_An_A nalytical_Construct

iconic for the modern environmental movement. Environmental governance is a wide, expanding and rapidly evolving dynamic area. In India, at present, development is having an increasing impact on the environment. However, environmental issues are increasing on the agenda of government, corporations, non-governmental agencies and citizens as well. Since the beginning of a journey in the 1970s, the scope of environmental governance has been expanding gradually. There has been a frontward looking action in the areas such as climate change and biodiversity. The scope of Environmental Impact Assessment which once started with impact assessment of river valley projects in the year 1978-79, has now been enhanced to cover other designated projects or activities. Hence, the major and foremost actors which have significantly contributed to shaping the environmental governance framework in India include Central Government, Supreme Court and the Civil Society. However, State Governments and Local bodies such as Municipal Corporations, Nagar Panchayats etc., have general responsibilities to ensure compliances and enforcement of national laws and policies. Responsibility is, thus, shared between the centre and the states.

With the increasing pressure on environmental resources from various facets of development, institutional as well as non-institutional mechanisms assume importance for ensuring their long term sustenance. Improving the governance process of development is considered as a means of improving performance on resource conservation and environmental management.

The Government of India has chosen a multi-pronged approach to environmental governance which has been reviewed in this paper in a catalogued manner. The initiatives of The government of India come under the broad categories with global commitments, transparency and accountability, sensitive ecosystems and conservation, water resource management, and research, education and training capacity building.

The abstract state of environmental governance needs to be developed much deeper by incorporating further details and making refinements, especially in terms of decentralisation.

The current governance framework is yet to extend to the areas of (public) participation, delegation (of powers) and prudent resource management. The enactment of Panchayat Extension to Scheduled Areas (PESA) Act 1996 and the National Environmental Appellate Authority (NEAA) Act 1997 are considered as a step in that direction. The proposed Environmental Protection Authority (EPA) to act as a hub for environmental management (through project permissions and target initiatives) from a multi-dimensional perspective involving current institutions into the operational framework may strengthen the environmental governance in the country

At the backdrop, the attainment of sustainable development is enshrined in development policies and institutions, but the policies that promote it through the guidance of the activities to be promoted and/or contained is fragmented in different policies e.g., National Forest Policy, 1988, National Conservation Strategy and Policy Statement on Environment and Development, 1992, the Policy Statement on Abatement of Pollution, 1992 and a few other sectoral policies. The National Environment Policy (NEP), 2006 sought to extend the coverage, and fill in the gaps that still exist, in light of present knowledge and accumulated experiences; it sought to build on the earlier policies rather than displacing them. The NEP is also a response to the nation's commitment to a clean environment, mandated in the Indian Constitution in Articles 48A and 51A (g) and strengthened by judicial interpretation of Article 21.

REFERENCES

- [1] https://www.downtoearth.org.in/blog/environment/environmental-governance-india-s-changing-scenario-59534
- [2] https://www.researchgate.net/publication/228122528_Environmental_Governance
- [3] https://www.sagepub.com/hi/nam/environmental-governance-in-india/book265219
- [4] https://lotusarise.com/environmental-policy-in-india-upsc/
- [5] https://lotusarise.com/environmental-policy-in-india-upsc/
- [6] https://lotusarise.com/environmental-policy-in-india-upsc/
- [7] https://lotusarise.com/environmental-policy-in-india-upsc/
- [8] https://lotusarise.com/environmental-policy-in-india-upsc/
- [9] https://www.researchgate.net/publication/338952158_Modern_Environmental_Governance_and_India_An _Analytical_Construct

Environmental Governance in India: Issues and Challenges

- [10] https://www.ecology.edu/environmental-governance.html
- $[11] \ https://www.researchgate.net/publication/256058810_Review_of_Environmental_Governance_in_India_C \ ataloguing_of_the_Current_Initiatives$
- [12] https://www.researchgate.net/publication/338952158_Modern_Environmental_Governance_and_India_An _Analytical_Construct

Citation: Dr. Shridevi S. Suvarnakhandi. "Environmental Governance in India: Issues and Challenges" International Journal of Political Science (IJPS), vol 7, no.2, 2021, pp. 13-32. doi: https://doi.org/10.20431/2454-9452.0702004.

Copyright: © 2021 Authors. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.