A CONTEMPORARY STUDY ON THE WATER CRISIS AND THE EFFECTIVENESS OF INDIAN ENVIRONMENTAL LAWS

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ABSTRACT

India despite having a very extensive river system, faced with a severe water crisis due to the various factors, including, rapid urbanization, industrialization, lack of groundwater resources, pollution of river, and ineffective governance mechanisms. This imbalance between the quantity of water consumed and water available has had a negative impact on public health, agriculture, biodiversity and economic development.

The Indian environmental jurisprudence has undergone tremendous transformation in the course of its development and through various modes of constitutional interpretation, legislation, and judicial activism. The legal basis for water protection and environmental sustainability includes constitutional provisions under article 21, 48A and 51A (g) as well as the statutory enactments like; the Water (Prevention and Control of Pollution) Act, 1974 and Environment (Protection) Act, 1986. Additionally, the principles of justice have made environmental governance in India stronger, especially the polluter pays principle, the precautionary principle and/or the public trust doctrine.

This paper critically looks into the recent aspect of the water problem in India and critically examines its effectiveness from the legal perspective in tackling water related issues. The study also examines the property rights, judicial experiences, means of enforcement and policy restrictions of constitutional guarantees, and makes recommendations for constitutional reforms that would facilitate sustainable water management and environmental justice.

Keywords: Water Crisis, Environmental Law, Water Pollution, Groundwater Depletion, Environmental Justice, Sustainable Development, Water Governance, Climate Change, Right to Water.

1. INTRODUCTION

Water is, first of all, the foundation of life, a vital natural resource which is essential to man's life, agriculture, industry and ecological balance. Availability of a clean and safe water determines the quality of life, public health and economic development of a nation. With a population of almost eighteen per cent of the world's population, India is struggling to meet the tremendous pressure on water resources caused by increasing population, rapid urbanization, industrial growth and climatic changes.[1]

Indian crisis of water is multidimensional in nature. This covers water shortage, depletion of groundwater resources, river and lake pollution, and poor sanitation infrastructure and water governance inefficiencies. Recurring droughts and water scarcity in multiple regions of India and industrial / urban pollution in the available water sources contribute to the severe ecological imbalance and declining water table.[2]

In many states in India, the extraction of groundwater for agriculture and industry has gone beyond the sustainable level of such recharge, resulting in severe ecological imbalance and falling groundwater levels.[3]

The effects of climate change have also worsened, as monsoons patterns, glacial melting and rainfall distribution have all been impacted. Besides, it has been suggested from the scientific side that climate change is exacerbating the groundwater depletion along with affecting its security in rural as well as urban regions leading to various conflicts in the society including those related to agriculture and inter-state river utilization as well as drinking water security.[4]

With the constitutional provisions and environmental laws, and then by judicial interpretation, a clear environmental compass exists in India, with regard to Water Protection. The Constitution in Article 21 also has been extended to include the right to clean and safe drinking water as a part to the right to life.[5] Statutes available in this regard include the Water (Prevention and Control of Pollution) Act, 1974, the Environment (Protection) Act, 1986 and

[1] P. Leelakrishnan, Environmental Law in India (7th edn., LexisNexis 2025) ISBN: 9788197759024.
[2] Shyam Divan & Armin Rosencranz, Environmental Law and Policy in India: Cases and Materials (3rd edn., Oxford University Press 2023).
[3] Vimal Mishra et al., "Summer Monsoon Drying Accelerates India's Groundwater Depletion," Earth's Future (2024), DOI: https://doi.org/10.1029/2024EF004516.
[4] S. Arora et al., "Elevation-dependent Groundwater Control on Baseflow in a Himalayan Catchment," Scientific Reports (2026), DOI: https://doi.org/10.1038/s41598-026-49483-2.
[5] Subhash Kumar v. State of Bihar, (1991) 1 SCC 598.

the National Green Tribunal Act, 2010 for water management and pollution control.[6]

While there is legislation detailing environmental issues, water laws are poorly enforced in India, as a result of the inefficient implementation, corruption in the government, poor monitoring, and lack of public participation. This predictably has weakened the policy's ability to effectively govern the environment, and attention thus needs to be focused on a critical review of the 'carve-up' of Indian environmental policy to tackle the increasingly serious water crisis faced by the country.[7]

The concepts of water scarcity and various constitutional and legal aspects of water protection are discussed in this paper, as are the judicial strategies for addressing environmental justice and the limitations of current water policies in India for promoting sustainable water management.

2. LITERATURE REVIEW

2.1 Existing Studies on Water Scarcity in India

Various scholars and researchers have explored, from legal, environmental and policy angles, the issue of water scarcity facing India in recent years, which has been increasing. P. Leelakrishnan notes that the decreasing availability of fresh water resources in India is no longer an environmental problem but also a socio-economic and governance problem which plays an important role in ensuring the general welfare & sustainable development.[8]

Yet, it is believed that traditional water management systems in India have suffered a decline as a result of modernization and quick urbanization in the country. Shyam Divan and Armin Rosencranz emphasize in their work that the role of environmental regulation in India has rather been concentrated more towards the formulation of legislation than its effective implementation.[9] Their efforts have already drawn attention to the need for court involvement and accountability of water institutions.

[6] The Water (Prevention and Control of Pollution) Act, 1974; The Environment (Protection) Act, 1986; The National Green Tribunal Act, 2010.
[7] Gaurang Devarhubli, "The Advancement of Environmental Procedural Rights in India," Cogent Social Sciences (2024), DOI: https://doi.org/10.1080/23311886.2024.2312949.
[8] P. Leelakrishnan, Environmental Law in India (7th edn., LexisNexis 2025).
[9] Shyam Divan & Armin Rosencranz, Environmental Law and Policy in India (2nd edn., Oxford University Press 2020 Reprint).

There are also, more recently, a number of empirical and policy-oriented studies that illustrate the severity of the water problem in India. Harpreet Kaur and Kamal Vatta recently created a multidimensional water security index that highlights major differences in access to and management of water resources in Indian states.[10] Study shows a stronger groundwater dependence, along with weak governance systems, is associated with higher water insecurity.

Table 1: Major Causes of Water Scarcity in India

Cause	**Impact on Water Resources**
Population Growth	Increased domestic demand
Urbanization	Pressure on water infrastructure
Industrial Pollution	Contamination of rivers and groundwater
Climate Change	Irregular rainfall and drought
Groundwater Over-extraction	Declining water table
Weak Governance	Poor implementation of laws

2.2 Research on Ground Water Depletion and Pollution

In India groundwater is one of the major sources of water for irrigation and drinking purposes. Yet over- extraction and pollution of groundwater has had an adverse impact on its sustainability. A study by Vimal Mishra and collaborators suggests that groundwater use is worsening due to long trend of reduction in monsoon rainfall in some States of India and may lead to irreversible degradation in ecology unless the extraction is properly regulated.[11]

C. K. Singh critically analyzes India's groundwater policy is not very ideal, as there is a lack of effective monitoring mechanism and poor coordination between authorities responsible for the management of groundwater.[12] In a similar way, studies carried out by Akshay Kerketta et

[10] Harpreet Kaur & Kamal Vatta, "India's Water Security Outlook: A State-level Analysis through a Multidimensional Index," 38(2) Margin (2026), DOI: https://doi.org/10.1177/09713441251407491.
[11] Vimal Mishra et al., "Summer Monsoon Drying Accelerates India's Groundwater Depletion," Earth's Future (2024).
[12] C.K. Singh, "A Critical Review of India's Latest Groundwater Policy," Journal of Landscape Ecology (2024),

al. shows groundwater pollution due to fluoride and industrial pollutants with increasing trends in the states like Punjab.[13]

Depletion of groundwater also poses significant public health concerns as contaminated groundwater is a source of diseases like fluorosis, gastrointestinal disorders and water borne diseases. Thus, both scientific and legal solutions are required to combat environmental issues related to managing groundwater.

2.3 Studies on Climate Change and Water Governance

Water availability and environmental sustainability in India has become one of the most significant factors due to climate change. Evidence provided by scientists' shows that irregular rainfall, increased temperatures and melting glaciers are causing impacts to river systems and recharging groundwater resources.[14]

The study of sustainable water governance and the role of local communities in water conservation, carried out by S. Rawal and others in the Himalayan region, highlights the importance of water security and wastewater reuse in India.[15] Manjari Manisha and others study confirms the significance of wastewater reuse and integrated policy frameworks for water security in India.[16]

All these studies point to building climate resilience and sustainable management of resources and technologies as central features of environmental governance for future water security.

2.4 Research Gap in Indian Environmental Law Enforcement

There is literature regarding water scarcity and environmental problem but there is not much research available on the efficacy of the enforcement of environmental laws in India. Most of the studies are of policy formulation and environmental problems but do not consider the real

DOI: https://doi.org/10.2478/jlecol-2024-0010.

[13] Akshay Kerketta et al., "Groundwater Fluoride Prediction Modeling Using Machine Learning in Punjab, India," Frontiers in Soil Science (2024), DOI: https://doi.org/10.3389/fsoil.2024.1407502.

[14] S. Arora et al., "Elevation-dependent Groundwater Control on Baseflow in a Himalayan Catchment," Scientific Reports (2026).

[15] S. Rawal et al., "Ensuring Water Security by Reviving Selected Springs in Sikkim," Climate and Development (2024), DOI: https://doi.org/10.1080/23570008.2024.2333600.

[16] Manjari Manisha et al., "Achieving Water Security in India through Sustainable Wastewater Reuse," 90 Utilities Policy (2024), DOI: https://doi.org/10.1016/j.jup.2024.101814.

workings of environmental institutions and implementation mechanisms.[17]

Lack of critical discussion on institutional weaknesses, poor monitoring, corrupt and inefficient water governance arrangements. Furthermore, the effect of the recent legislation is Water (Prevention and Control of Pollution) Amendment Act, 2024 on water resources has not been sufficiently studied in the academic discourse.

3. CONCEPTUAL UNDERSTANDING OF WATER CRISIS

3.1 Meaning and Nature of Water Crisis

A water crisis is when pure and potable water is no longer enough to meet human, agricultural, industrial and ecological demands. The crisis can occur because of a shortage of physical supplies, contamination, or uneven distribution and ineffective governance systems.[18]

There is a water crisis in India both quantitative and qualitative. Water scarcity has two types, quantitative water scarcity is caused by reduction in quantity of water resources during overexploitation and insufficient recharge and qualitative water scarcity occurs when the existing water resources are contaminated and polluted. As urbanization and industrialization take off rapidly, it has placed a great strain on water infrastructure and environmental resources. Water crisis is also social and economic due to the prevalence disproportionately in vulnerable communities, amongst farmers and the rural populations. Insufficient access to clean water only exacerbates poverty, adds to health threats and has a regional impact.

3.2 Types of Water Scarcity

Water scarcity can be of a physical type, economic type, seasonal type and type based on quality. Physical scarcity: natural water resources are not required to sustain human activities. Economic scarcity is caused by inadequate infrastructure, insufficient finance or lack of economical administration.[19]

There may be seasonal scarcity in areas that rely on rain for their water supply while areas with

[17] Gaurang Devarhubli, "The Advancement of Environmental Procedural Rights in India," Cogent Social Sciences (2024).
[18] P. Leelakrishnan, Environmental Law in India (7th edn., LexisNexis 2025).
[19] Shyam Divan & Armin Rosencranz, Environmental Law and Policy in India (2023).

contaminated rivers, lakes and groundwater may experience quality scarcity.

Table 2: Types of Water Scarcity

Type of Scarcity	**Characteristics**
Physical Scarcity	Insufficient natural availability
Economic Scarcity	Inadequate infrastructure and access
Seasonal Scarcity	Dependence on irregular rainfall
Quality Scarcity	Pollution and contamination

3.3 Causes of Water Crisis in India

India's water problem is multifaceted and complex. The demand for water, both for routine household and industrial uses, has vastly grown due to demand from population growth and urbanization. Many areas of agriculture rely on groundwater for irrigation, leading to higher rates of extraction than can be sustained.[20]

River Ganga and Yamuna is still polluted with industrial waste and raw/untreated sewage. Climate change has exacerbated droughts, periodic rains and reduced ground water recharge. Loss of forests and wetlands have dampened the natural recharge system and ecological sustainability. Unintelligent governance, weak environmental laws and poor enforcement of environmental laws, and weak public participation are also a big factor in the worsening water crisis.

3.4 Impact on Public Health, Agriculture and Environment

Water crisis negatively impacts public health, food security and environmental sustainability. Drinking water contaminated by waterborne diseases like cholera, typhoid fever and fluorosis.[21]

Groundwater levels are dwindling, and rainfall is not following a steady pattern, which wreaks

[20] V. Srinivasan et al., "The Impact of Groundwater Depletion on Rural Drinking Water Systems in India," PLOS Water (2025), DOI: https://doi.org/10.1371/journal.pwat.0000138.
[21] Akshay Kerketta et al., "Groundwater Fluoride Prediction Modeling Using Machine Learning in Punjab, India," Frontiers in Soil Science (2024), DOI: https://doi.org/10.3389/fsoil.2024.1407502.

havoc on agriculture, especially given its reliance on irrigation. Environmental degradation takes place in various form including loss of wetland, destruction of biodiversity and ecological balance. Economic impacts are lowered productivity, higher health care expenses and water distribution and access related social conflicts.

4. CONSTITUTIONAL AND LEGAL FRAMEWORK RELATING TO WATER PROTECTION

4.1 Article 21 and Right to Clean Water

The Indian judiciary has interpreted Article 21 of the Constitution broadly to include the right to clean and safe drinking water as an essential part of the right to life. The Supreme Court in Subhash Kumar v. State of Bihar held that the right to pollution-free water and air is fundamental to human existence.[22]

This interpretation of the constitution gave environmental protection a new life because it became a legal right that could be enforced. The environment and its degradation has been consistently recognized by courts to have a direct impact on human dignity, public health and quality of life.

4.2 Directive Principles of State Policy

The Directive Principles of State Policy also have constitutional duties on the State regarding protection of Environmental Resources and public welfare. The obligations of the State under Article 47, which aims for the improvement of public health, and under Article 48A, which aims for the protection and improvement of the environment, have been stressed.[23]

These clauses are not directly enforceable by courts, but they definitely have a bearing on how the legislation is approached as well as on how environmental protection and sustainable development is worked out in the courts.

4.3 Fundamental Duties under Article 51A (g)

This duty of the citizens to protect and improve the natural environment, including forests,

[22] Subhash Kumar v. State of Bihar, (1991) 1 SCC 598.
[23] Constitution of India, arts. 47 and 48A.

rivers, lakes and wildlife, suggests that it is equally a social duty and not the responsibility of government alone.[24]

Article 51A (g) has been invoked by the judiciary with respect to interpretation of the rights and duties in environmental matters.

4.4 Federal Distribution of Water-related Powers

Legislative powers have been allocated to the Union and State governments regarding water under the Indian Constitution. Entry 17 of State List covers water supply, irrigation and canals, and Entry 56 of the Union List gives Parliament power to control rivers and river valleys which cross State boundaries.[25]

This form of federalism may occasionally result in administrative issues and jurisdiction debates, such as those over interstate allocation of river water.

5. INDIA'S ENVIRONMENTAL LAW RELATED TO WATER RESOURCES

5.1 The Water (Prevention and Control of Pollution) Act, 1974

The Water Act, 1974 was the major law enacted and the government has included Central Pollution Control Board and State Pollution Control Boards which are intended for the water quality monitoring and the regulation of the discharged water from industries.[26]

The law gives powers to the authorities to give consent for industry, inspect and give penalties for industry fault. But there is a problem with enforcement, as technical capacity and administrative inefficiency prevent its attainment.

5.2 Water (Prevention and Control of Pollution) Amendment Act, 2024

With regards to compliance mechanisms, the Water Amendment Act, 2024 aims at the higher efficiency of enforcement procedures and enhance institutional accountabilities in relation to environmental violations.[27]

[24] Constitution of India, art. 51A(g).
[25] Constitution of India, Seventh Schedule.
[26] The Water (Prevention and Control of Pollution) Act, 1974.
[27] The Water (Prevention and Control of Pollution) Amendment Act, 2024.

Digital compliance systems are here to modernize environmental regulation and overcome delays in procedures.

5.3 Environment (Protection) Act, 1986

There has been another Act, the environment (Protection) Act 1986 which came into existence after the Bhopal Gas Tragedy (3 December, 1984), and gives wide powers to the Central Government to protect the environment.[28]

The Act gives powers to the government to control industry, to mark environmental requirements and to give instructions regarding pollution prevention. It is also an overarching bill that deals with several environmental concerns, such as water pollution.

5.4 National Green Tribunal Act, 2010

The problems of pollution of the rivers and illegal mining and over-exploitation of groundwater have also been the preoccupation of the NGT which has played a significant role in matter of environmental justice.[29]

The tribunal is tasked to judge environmental issues in accordance with the principles of sustainable development, precautionary principle and polluter pays.

5.5 Role of Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs)

Both CPCB and SPCB are important entities in monitoring and control of pollution in an environment. Some of these duties are to provide environmental clearance, inspect industry for compliance, and collect environmental information and to take legal action against offenders.

But poor human resource management, politicization and lack of technical amenities impacts the effectiveness of these institutions.

Table 3: Important Environmental Laws Relating to Water Protection

[28] The Environment (Protection) Act, 1986.
[29] The National Green Tribunal Act, 2010.

Law	Objective
Water Act, 1974	Prevention and control of water pollution
EPA, 1986	Environmental protection and regulation
NGT Act, 2010	Environmental adjudication
Water Cess Act, 1977	Regulation of water consumption

6. JUDICIAL APPROACH TOWARDS WATER PROTECTION AND ENVIRONMENTAL JUSTICE

6.1 Right to Water as a Fundamental Right

Indian courts have consistently recognized access to clean water as an essential component of Article 21.[30] Judicial interpretation has expanded environmental rights by linking ecological protection with human dignity and public health.

The recognition of water as a fundamental right has enabled citizens to approach constitutional courts against environmental degradation and pollution.

6.2 Polluter Pays Principle

The Supreme Court formally embraced the polluter pays principle in Vellore Citizen Welfare Forum vs. Union of India.[31]

This principle discourages industries from shifting expenses of harming the environment to an external cost.

6.3 Precautionary Principle

The precautionary principle emphasizes preventive environmental action even where scientific certainty is incomplete.[32] Courts have issued a number of rulings against the delay of environmental protection measures due to the lack of full scientific evidence.

[30] Subhash Kumar v. State of Bihar, (1991) 1 SCC 598.
[31] Vellore Citizens Welfare Forum v. Union of India, (1996) 5 SCC 647.
[32] A.P. Pollution Control Board v. Prof. M.V. Nayudu, (1999) 2 SCC 718.

This is also a significant concept for groundwater management and industries.

6.4 Public Trust Doctrine

The public trust doctrine is the basis for the State's public-use trust over natural resources, including rivers, lakes and forests, which means that the government may not allow unlimited use of natural resources for private interests.[33]

The doctrine enhances environmental responsibility and sustainable state management.

6.5 Important Supreme Court and NGT Decisions

There have been a string of significant judgments passed by Indian courts and the National Green Tribunal on water protection and environmental justice issues.

Table 4: Significant Water Protection Judicial Decisions

Case	**Principle Established**
M.C. Mehta v. Union of India	Environmental liability
Subhash Kumar v. State of Bihar	Right to clean water
Vellore Citizens Welfare Forum	Polluter pays principle
A.P. Pollution Control Board v. Nayudu	Precautionary principle
Intellectuals Forum v. State of Andhra Pradesh	Public trust doctrine

7. CONTEMPORARY CHALLENGES IN ADDRESSING THE WATER CRISIS

7.1 Groundwater Exploitation

India is heavily dependent on groundwater among the nations. The city's groundwater resources are rapidly depleted due to the excessive withdrawal for irrigation, industry and urban use.[34]

[33] Intellectuals Forum v. State of Andhra Pradesh, (2006) 3 SCC 549.
[34] V. Srinivasan et al., "The Impact of Groundwater Depletion on Rural Drinking Water Systems in India," PLOS Water (2025).

Water resources in some areas are decreasing both in quality and quantity, with an overall decline in sustainability.

7.2 Industrial and River Pollution

The Ganga and Yamuna rivers are an example of the dysfunction of environmental regulation and urban sewage waste management in India.[35] Polluted water resources have direct impacts on public health and biodiversity.

7.3 Urban Water Shortage

Urbanization has placed a huge stress on the capacities of municipal water facilities. Groundwater is commonly exploited in many Metropolitan cities leading to frequent droughts and imbalance supply.

High population density and other socio-economic issues such as unauthorized settlements and deficient infrastructure add to the complexity of managing urban water.

7.4 Inter-State River Water Disputes

Inter-state river conflicts can occur because the states have competing land, water use needs for agriculture, industries and domestic purposes. The Cauvery and Krishna-Ravi Beas water disputes are examples of the challenges faced by federal water management in India.

These can prolong effective water security management, and lead to political tensions.

7.5 Climate Change and Sustainable Water Management

For water management to be sustainable, the governance mechanisms need to be resilient to climate change, such as rainwater harvesting, management of watersheds and recycling of wastewater.[36]

Climate adaptation, and in particular scientific planning, increasingly needs to be included in environmental laws.

[35] M.C. Mehta v. Union of India, (1988) 1 SCC 471.
[36] S. Arora et al., "Elevation-dependent Groundwater Control on Baseflow in a Himalayan Catchment," Scientific Reports (2026).

8. EFFECTIVENESS AND LIMITATIONS OF INDIAN ENVIRONMENTAL LEGISLATIONS

8.1 Achievements of Environmental Regulation

Judicial activism has played a positive role in constitutional environmentalism and enhanced the access to justice regarding environment.[37] Constitutional environmentalism has been strengthened by Indian environmental laws, and by raising public environmental awareness and accountability in court.

The formation of the National Green Tribunal would greatly aid specialized Environmental Adjudication.

8.2 Weak Enforcement Mechanisms

Although detailed laws have been issued, enforcement continues to be ineffective because of corruption and lack of monitoring systems and bureaucratic delay. Technical and manpower capacity is lacking at environmental authorities to effectively implement them.

Pollution standards are often ignored in the industries without there being timely punishment.

8.3 Administrative and Institutional Challenges

Notably, water governance suffers from administrative inefficiency due to institutional overlap and coordination issues between the agencies, and due to long delays in obtaining environmental clearances, inadequate management of data and political interference.[38]

Environmental programs are also in short supply in recent years among local bodies in rural areas and urban areas due to financial and technical drawbacks.

8.4 Need for Integrated Water Governance

The trinity of solutions - science, law and public involvement in the driving of environmental sustainability is required in India to have a water governance system that is integrated. Nobody

[37] Gaurang Devarhubli, "The Advancement of Environmental Procedural Rights in India," Cogent Social Sciences (2024).
[38] C.K. Singh, "A Critical Review of India's Latest Groundwater Policy," Journal of Landscape Ecology (2024).

can manage water in a sustainable manner using isolated institutional mechanisms.

Table 5: Major Challenges in Water Governance

Challenge	**Consequence**
Weak enforcement	Continued environmental violations
Administrative overlap	Delay in decision-making
Lack of awareness	Poor public participation
Climate change	Increased water scarcity
Political interference	Policy inconsistency

9. COMPARATIVE PERSPECTIVE

9.1 Water Governance Models in Foreign Jurisdictions

The Israel, Singapore and Australia have implemented technologically advanced and integrated governance structures. Desalination and drip (irrigation) water technologies are used extensively in Israel and large-scale wastewater recycling systems have been built in Singapore.

These countries stress managing them more efficiently, water management as a scientific process and participation of people in conserving water.

9.2 Lessons for India

The following are important lessons to be learned from foreign governance of water. Examples of these are the use of smart irrigation, the concept of integrated river basin management, recycling of wastewater and the decentralized use of conservation systems.

Technological innovation and public awareness can go a long way in improving water governance framework in India.

10. FINDINGS AND SUGGESTIONS

10.1 Strengthening Legal Enforcement

Implementation of environmental laws and better monitoring systems are needed to deal with water pollution and unlicensed extraction of groundwater. There should be more autonomy and technical capacity for environmental authorities.

10.2 Community Participation and Awareness

In order to conserve water in a sustainable way, it is important to have public participation and environmental awareness. Watershed management, rain water harvesting and pollution monitoring should be part of a local community effort.

10.3 Technological and Policy Reforms

Artificial Intelligence (AI) monitoring, wastewater recycling, and digital compliance systems should be taken into consideration and incorporated in water governance policies.

It is vital therefore that government policies promote sustainable industry practices, and efficient irrigation technologies.

10.4 Sustainable Water Conservation Strategies

Rainwater harvesting, afforestation and wetland protection and groundwater recharge systems should be expanded in urban and rural areas.

There is a need to walk the fine line between development and conservation aspects for better sustainability.

11. CONCLUSION

India today faces one of the biggest water problems in the country is the crisis of the times. All these have contributed to the worsening water crisis and environmental degradation due to increased population pressure, withdrawal of ground water, industrial pollution, urban encroachments and climate change. Crisis directly impacts in terms of public health, agriculture, economic development, ecological sustainability.

India has a comprehensive plan of constitutional and statutory framework for environmental protection. The constitutional guidelines, environmental laws and various judicial concepts have enhanced environmental governance and instituted clean water as a right of the citizens.

But its implementation is held back by weak enforcement mechanisms and administrative inefficiency and inadequate public participation.

Integrated governance - simultaneous intervention in legal, technological and institutional aspects with sustainable environmental management is essential for the future of water security in India. To ensure equitable and sustainable access to water resources for current and future generations, there should be strong enforcement of environmental laws, community participation and scientific planning.

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