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WATER RESOURCE MANAGEMENT: ANALYSING LEGAL INSTRUMENTS IN INDIA

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ABSTRACT

Water is a vital resource but managing it and distributing it fairly remain a major problem all over the world. Environmental degradation and public health issues have been exacerbated by the increasing lack of clean water, industrial pollution, unsustainable extraction, and ineffective government. Water resources in India are governed by a complex legal system that includes court decisions, legislative actions, and constitutional clauses. However, structural weaknesses such as inconsistent water laws, inadequate regulatory oversight, and unclear allocation procedures hinder efficient water management. This article examines the institutional and legislative framework of water governance in India, focusing on the key challenges and policy implementation failures. It also investigates the human rights dimension of water security, as it points to the role of the judiciary in enforcing **Article 21** of the Constitution, guaranteeing access to clean water as a basic right. The article, through its emphasis, points out three critical requirements a comprehensive legislative framework, more solid enforcement tools and community involvement-by which to be able to safely ensure sustainable management of water so that future, as well as current generations could be protected to use water effectively.

KEYWORDS- Environmental protection, Water law, right to water, Judicial intervention., Sustainability, Public health.

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INTRODUCTION

Water is one of the most necessities for human existence, and its deprivation is tantamount to a denial of life. Given the growing scarcity of access to clean water, it is not implausible that disputes over the management of water resources may arise. Finding safe drinking water is a daily struggle for the residents of cities and towns, which highlights the urgent need for an equitable and just distribution of this valuable natural resource. However, the "**water mafia"—**a term used to describe powerful organizations with vested interests—monopolizes supplies and commits corrupt activities, depriving numerous individuals of their entitlement to water.

This has created a significant burden for the state to ensure that everyone gets safe drinking water. Thus, it should equate the priority it gives to the conservation and equitable distribution of water.

It is alarming that nearly 70% of the water sources are polluted by human activities and industrial waste, and over-extraction of non-renewable resources aggravates the situation. The bitter truth is that without considering water as an integral part of life, mankind itself is threatened. Our rivers, lakes, and dams are not just a collection of water; they hold cultural, environmental, and social importance. However, these water sources are being exploited for corporate gain and, often, to the detriment of the public's well-being. Unrestrained commercial avarice also betrays an abdication of governance.

The very foundation of our existence is threatened by the degradation of groundwater quality caused by pollution. Since humans and the environment are inextricably linked, it is our shared responsibility to protect nature—not only for present and future generations but also for the survival of innumerable plant and animal species. The **1972 Stockholm Conference** [2]on Human Environment spurred the beginning of international environmental protection initiatives, since then. The United Nations has emphasized the need for governments to be more proactive in

[2] https://www.un.org/en/conferences/environment/stockholm1972

developing and implementing water laws while simultaneously bolstering local water management services and systems.

India's judiciary played a significant role in the upholding of constitutional provisions like **Articles 21, 48A, and 51A(g)** through the dynamic interpretation made by it regarding the right to a clean and healthy environment. Experts, here believe that effective water management necessitates a combination of policy and legal measures, including creating a clear regulatory and legal structure to ensure environmentally friendly water use, recognising water as a valuable resource by appropriately pricing it (except for essential uses) that promotes effectiveness, incorporating entitlements to water that can be dealt through an arrangement of permits for withdrawals, and encouraging community participation, especially among women, so that water conservation turns into a collective duty.[3]

METHOD

This study has employed a **doctrinal approach,** analysing the subject entirely from academic and legal sources that already exist. A significant proportion of the study is drawn from secondary sources, including books, journal articles, and online materials, which provide a sound foundation for understanding the main concerns about water management and legislation. The research has also been significantly influenced by the advice of faculty members who specialize in environmental law, who have helped find pertinent sources and improve the analytical framework. The knowledge gleaned from these sources has been crucial in guaranteeing the breadth and depth of this investigation.

[3] Videh Upadhyay, "Legal Dimensions of Water Resource Management in India" (ed.), Reforming Institutions in Water Resource Management 23 (Routledge, 1st edn., 2009).

THE CURRENT LEGAL STRUCTURE:

Several crucial national and state laws form the basis of India's institutional and legal framework for water management. There are currently nine main laws that control matters pertaining to water in the nation. The following are a few of the most significant national laws pertaining to environmental and water protection:

1. **The Water (Prevention and Control of Pollution) Act of 1974**[4] is aimed at preventing and controlling water pollution.
2. Although mainly addressing air pollution, the **Air (Prevention and Control of Pollution) Act, 1977**[5]**,** also contributes to environmental regulation.
3. A legal framework that would protect the environment, including water resources, has been provided through **the Environment Protection Act of 1986**[6]**.**
4. **The Public Liability Insurance Act of 1991**[7] ensures that "any business engaged in handling dangerous materials" is liable "for environmental harm caused.".
5. **The Environmental Impact Assessment (EIA) Notification of 1994** [8]requires that environmental assessments take place to decrease the impact that large-scale projects have on natural resources.

The **Ministry of Environment and Forests** oversees monitoring and coordinating environmental laws and policies. It is tasked with **organizing, advancing, and ensuring** the implementation of various environmental laws. Also, the ministry oversees critical regulatory functions such as the approval of environmental permits of major construction undertakings. These laws and regulatory

[4]https://www.indiacode.nic.in/bitstream/123456789/12927/1/the_water_%28prevention_and_control_of_pollution%29_act%2C_1974_no._6_of_1974_date_23.03.1974.pdf
[5] https://www.indiacode.nic.in/bitstream/123456789/7781/1/air_act-1981.pdf
[6] https://www.indiacode.nic.in/bitstream/123456789/4316/1/ep_act_1986.pdf
[7] https://www.indiacode.nic.in/bitstream/123456789/4320/1/the_public_liability_insurance_act_1991.pdf
[8] https://dest.hp.gov.in/sites/default/files/eia_1994_A1b.pdf

frameworks support India's attempts to balance preserving its environment and water resources and economic growth.

CONSTITUTIONAL ASPECTS OF WATER LAWS IN INDIA

Since the **Government of India Act of 1935,** there has been primary authority of state governments about water law in India. This constitutional framework grants states sole jurisdiction over water-related issues, including irrigation, canals, drainage, retaining walls, storage of water, hydroelectricity, fisheries, and water supply.[9] However, since no state can unilaterally control shared water resources, there are restrictions that apply to interstate rivers.[10] Apart from this, there are certain matters in which the central government can make laws for instance controlling navigation and shipping on national waterways and regulation of the use of territorial and tidal waters.[11] Lastly, the **Inter-State Water Disputes Act, 1956**, formalizes the Union government's duty to settle interstate water disputes through a legal structure for their settlement when they do arise, in the cases where negotiation fails.[12]

In India, water management has a significant human rights component in addition to legal and administrative frameworks. The courts have consistently interpreted **Article 21,** which guarantees the right to life, as implicitly encompassing access to clean water, even though the **Constitution does not specifically mention** a fundamental right to water. In addition, **Article 51A(g)** mandates all citizens to preserve and enhance the environment, including rivers, lakes, and forests, while **Article 39(b)** requires the state to ensure natural resources are put into use beneficially for all.

[9] Schedule 7, List 2, Entries 17 and 21, Constitution of India
[10] Schedule 7, List 1, Entry 56, Constitution of India
[11] Article 262, Constitution of India.
[12] Inter-State Water Disputes Act, 1956, available at http://www.ielrc.org/content/e5601.pdf

The judiciary has supported this view through important decisions. The Supreme Court upheld in **Subhash Kumar v. State of Bihar**[13] that the right to clean air and water is a necessary component of the right to life, which is the core for a dignified essence.

The Court went one step further in the **Sardar Sarovar case**[14], clearly declaring that water is a basic human right under Article 21 since it is a necessity for survival. Similarly, the Supreme Court held in **State of Himachal Pradesh v. Umed Ram Sharia**[15] that the right to life guarantees not only physical survival but also a particular standard of living, which includes access to clean water.

Under **Section 17(1)(a) of the Water (Prevention and Control of Pollution) Act, 1974,** state pollution control boards are required to formulate and implement measures to prevent and reduce water pollution in rivers, lakes, and wells in recognition of the need for organized water management. This was amended in the year 1988. In 1977, the Water (Prevention and Control of Pollution) Cess Act provided for the laying and collection of a cess on water used by people engaged in certain types of industrial operations. This cess is collected to augment the resources of the Central Board and the State Boards established under the Water (Prevention and Control of Pollution) Act, 1974.[16] The Act highlights how essential it is to maintain water quality standards to safeguard public health and their well-being.

In the end, state authorities, local development organisations, municipal corporations, and panchayats are all at the helm for protecting water bodies. As the guardian and the custodian of natural resources, the state is bound to actively restore and preserve lakes, ponds, reservoirs, and rivers in addition to protecting them. This entails encouraging rainwater harvesting, enhancing their water quality, and halting their depletion. It thus means effective water conservation is not

[13] AIR 1991 SUPREME COURT 420.
[14] Narmada Bachao Andolan vs Union Of India And Others, AIR 2000 SUPREME COURT 3751.
[15] AIR 1986 SUPREME COURT 847.
[16] https://cpcb.nic.in/water-pollution/

only an environmental requirement but a fundamental obligation for ensuring that future generations will always have access to this very essential resource.

India's broad legal framework lends the authorities the necessary power to protect and preserve the natural water resources of the country. Lakes, rivers, and other water bodies continue to be neglected and deteriorated due to lack of proactive enforcement of the legislation. It has been highlighted by the Supreme Court on more than one occasion that the state and its citizens are responsible in this matter. The obligation of the state to protect natural resources was reiterated **in M.C. Mehta v. Kamal Nath**[17]. The case of **M.C. Mehta v. Union of India** [18]also reiterates the obligation of every citizen to help preserve the environment, including lakes.

The Supreme Court has laid emphasis on limiting construction near lakes because of the increasing danger posed to these bodies of water, with unchecked urban growth threatening their very existence. Still, the authorities have been wonted to take little serious action as environmental degradation has continued despite decades of legal provisions being in place. Some government agencies like **state administrations, urban development authorities**, and **municipal corporations** have started to take serious efforts in the last few years with judicial interventions through interim orders. There is hope that the lakes and rivers will soon regain their former status and be safeguarded due to their commitment toward protecting and rehabilitating lakes and rivers.[19]

The Andhra Pradesh High Court echoed the same view in **P.R. Subhash Chandran v. Government of A.P.,** [20]reaffirming that preventing water pollution and guaranteeing access to clean drinking water are fundamental duties under India's constitutional framework rather than

[17] AIR ONLINE 1996 SC 711
[18] AIR 1987 SUPREME COURT 1086
[19] Cullet, Philippe, and Sujith Koonan (eds), 'Water Law and Policy in India: Background and Overview', in Philippe Cullet, and Sujith Koonan (eds), Water Law in India: An Introduction to Legal Instruments, 2nd edn (Delhi, 2017; online edn, Oxford Academic, 18 Jan. 2018), https://doi.org/10.1093/oso/9780199472475.003.0001, accessed 30 Jan. 2025.
[20] AIR 2000 ANDHRA PRADESH 272

merely policy directives. The court underlined that every citizen has an implicit right to safe and clean water under **Article 21,** which protects the right to life. This interpretation supports that water security becomes a fundamental right of human due to which protection is the bounden duty for the state from environmental issues instead of being in the environmental stream.

RESPONSIBLE INSTITUTIONS FOR WATER POLICY IN INDIA

To formulate and implement water policies, the Indian Union government has established several organizations. Below is a summary of their responsibilities:

National Water Resources Council- [21]This council is responsible for promoting consensus among interested parties to shape water policies at the federal level.

National Water Board[22]- By providing the necessary assistance and coordination, the board supports the National Water Resources Council in performing its tasks.

Ministry of Water Resources- Formulating the agenda of the National Water Resources Council and ensuring that its decisions are implemented successfully are two of the most important duties of this ministry.[23]

Central Water Commission- This is the secretariat to the National Water Board. It advises the Ministry of Water Resources and produces key water policy documents and drafts.[24]

Central Ground Water Board- Its primary function is to evaluate ground water resources by drilling exploratory wells and geological surveys. Banks and other financial institutions depend on the information it generates to decide whether to approve loans for the construction of well and tube wells.[25]

[21] https://jalshakti-dowr.gov.in/about-department/introduction/
[22] https://www.nwm.gov.in/
[23] https://jalshakti-dowr.gov.in/implementation-of-national-water-mission/
[24] https://www.cwc.gov.in/en
[25] https://cgwb.gov.in/

Central Ground Water Authority- This body, that possesses legal authority, regulates the extraction of groundwater to put an end to environmental deterioration. Since, however, the Union government possesses residual authority in matters of environment, its regulatory power is circumscribed.[26]

National Committees- Hydraulics, cultivation, irrigation and hydrophilic research are some of the important subjects covered by specialized committees. They assist in building professional consensus over questions related to water and guide research agenda.

National Institutes of Specialisation- These institutes are under the ministry of water resources and conduct various studies that contribute to policy changes, such as how forests interact with water cycle and how return flows are influenced by irrigation.

River Basin Organisations- Organs that supervise the implementation of river water agreements and decrees of various tribunals are: Narmada Control Authority, Betwa Board, Upper Yamuna River Board, and Brahmaputra Board. Water Disputes Tribunals[27]

Water Disputes Tribunal- These tribunals settle the disputes of states over water resources. Their decisions affect future water policies and legal precedents apart from settling specific disputes.

Non-Governmental Organisations (NGOs)- They are watchful watchdogs who push the federal and state governments to improve their water policies and choices. Although their participation can occasionally cause developmental projects to lag, it also produces better results. For example, NGOs have effectively pushed for improved drinking water standards, better rehabilitation of communities uprooted by reservoirs, and careful planning of water features such as the Ottu Weir on the Ghaggar River[28].

[26] https://cgwa.mowr.gov.in/
[27] KV Raju and Avinandan Taron (eds.), River Basin Organisations in India: An Overview (2019/01/30).
[28] https://pib.gov.in/Pressreleaseshare.aspx?PRID=1884866

Judiciary- States and citizens can still request judicial intervention in water-related matters, even though Water Dispute Tribunal rulings are normally not appealable. As demonstrated in cases like Andhra Pradesh and Maharashtra requesting Supreme Court intervention to stop Karnataka's construction of the Alamatti reservoir, resentful states may turn to the judiciary for resolution prior to the establishment of a tribunal. In addition, people and non-governmental organisations have petitioned the courts for actions to address the Yamuna River's water quality problems and the Narmada Dam's height. The case law that emerged has a big impact on how India's water policy is shaped.[29]

Together, these organisations provide a thorough framework for managing and safeguarding India's water resources. They seek to solve water-related issues by striking a balance between development and sustainability of environment.

MAJOR ISSUES IN WATER RESOURCE MANAGEMENT

Water management in India is encountering several challenges based on incorrect use, overexploitation, and poor governance. The major problems are:

1. **Undervaluation of water.**

   Water continues to be significantly subsidized in most of the residential, agricultural, and industrial uses. The cost mechanisms are not revealing the actual long-term costs. The excessive use is, therefore, inefficient. Unrealistic prices have induced wasteful consumption patterns that will make the present use unsustainable.

2. **Intersectoral competition**.

   Different sectors are competing for water resources. Agriculture, which requires large amounts of low-quality water, frequently competes with the residential and industrial

[29] Ministry of Water Resources, Report of the Committee to study the Activities that are required for optimal development of a river basin and change required in existing River Boards Act, 1956 for the achievement of the same, 2012, http://wrmin.nic.in/writereaddata/Doabia-Committee-Report-2012.pdf

sectors, which require less high-quality water. Conflicts over the distribution of resources will persist unless proper prioritization is implemented.

3. **Environmental degradation.**

   Overuse of water resources, as well as contamination from chemicals used in agriculture, industrial discharge, and household waste, are major contributors to environmental degradation. Water sustainability necessitates the preservation of both its quantity, quality and accessibility while minimising environmental impact. However, uncontrolled utilisation and contamination jeopardise long-term water security.

4. **Disparities in allocation of water resources.**

   The accessibility of water varies by region, resulting in significant disparities. Many regions that are underdeveloped lack sufficient facilities, making getting water difficult. In nations that are developing, including India, almost two-thirds of humanity lacks clean water to consume and adequate sanitation, exacerbating public health crises.

5. **The effects of global warming**

   Rising global temperatures and alterations in precipitation patterns are altering the natural hydrological cycle. Decreased rainfall, increased droughts, and the unpredictability of weather events all threaten supply and demand seriously. Such climatic changes throw the supply-and-demand equilibrium out of balance.

6. **Failures in Regulation and Governance**

   In water policy development, short-term political considerations often take precedence over long-term sustainability. Governments usually respond to emergency situations rather than taking active stance. Inadequate wastewater treatment discharge, inadequate agricultural practices, and a lack of enforcement of regulations all impede effective water management.

7. **The public wellness and water scarcity**

Widespread health problems are caused by contaminated water sources. Millions of people die from waterborne diseases every year, and the decreasing purity of drinking water further limits its use. A clean water shortage directly affects hygiene, farming, and general well-being.

8. **Lack of Holistic Water Data**

The quantity and patterns of use, as well as the quality of water, require accurate information for effective decision-making. Lack of sufficient finances and technology resources hinders the proper organisation of the collection of information and processing. The lack of databases leaves legislators battling to implement informed but still effective water management strategies.

9. **The Demand for attainable Pricing.**

The price of water should be commensurate with its actual value, ensuring that it is economically sound but not prohibitively expensive for the poor. Sanitation, irrigation, and drainage infrastructure also require sufficient investment, which may be encouraged by incentives and tax exemptions.

10. **Poor Infrastructure**

Because water is unevenly spread geographically, a well-developed infrastructure will be required to efficiently supply and distribute it. It is also challenging to provide reliable access to water resources in many areas since pipes, reservoirs that hold water, and treatment facilities are not available. Governments should make investments first in water-related infrastructure to improve accessibility.

DEFICIENCIES IN INDIA'S LEGAL FRAMEWORK FOR WATER MANAGEMENT

1. **Lack of a Uniform Water Law**

Because water is a shared natural resource, it should be governed by comprehensive, uniform laws rather than a patchwork of state-specific policies. The Supreme Court has

repeatedly emphasised the **Doctrine of Public Trust**,[30] which recognises water as a collective resource rather than private property. Aligning national water laws with this principle can help create a balanced, coordinated framework for sustainable water management.

2. **Absence of a Clear Legal Framework for Water Allocation**

India's water laws have developed ad hoc without a structured legal foundation. Each state has its own regulations regarding water ownership and usage rights. In the cases of both federal and states asserting control over distribution and development, serious questions arise in the scope of state power in water management. In the absence of clear regulations, water rights disputes and arbitrary decisions prevail.

3. **Deficient Government Authority Regulation**

The government frequently exercises eminent domain in the management of water resources to determine how best to use, distribute, and develop them. There is a possibility of abuse and lack of accountability because of this concentration of authority. Ideally, the management of water should be supervised by independent regulatory agencies to ensure equitable distribution and avoid political interference.

4. **Lack of Explicit Criteria for Water Distribution**

States and river basins do not have standardized legal standards for measuring water entitlements. Water-sharing is governed by two primary concepts on a global scale:

- In the **Harmon Doctrine**, a territory is granted absolute power over the waters crossing through it.

[30] Shailesh R Shah v. State of Gujarat, 2002 SCC OnLine Guj 164.

- The **Helsinki/Dublin Rules** are meant to maximise water utilisation for the benefit of all areas sharing a river basin.

Though no specific strategy has been officially accepted, Indian water courts have adapted a mix of these concepts. In the absence of well-defined regulations, states are free to alter the distribution of water at their discretion, which may lead to disputes and legal disputes.

5. **Transparency in Decision-Making**

In the absence of a well-defined legal structure, decisions on water allocation and entitlement changes are often shrouded in obscurity. The uncertainty causes uncertainty among communities, businesses, and the agricultural sector. To ensure fairness in distribution and consistency in water provision, a well-structured legal framework should be introduced.

CONCLUSION

Water is more than just a resource-it is the **foundation of life** and is intertwined with our **culture, survival, and general well-being.** It remains one of the most underutilized and mismanaged resources in our nation, even though its importance is quite glaring. The issues number many and are pressing entrenched interests' monopolies, among others, of the supply; pollution and over-extraction leading to environmental damage. Although India has a sound legal framework, regulatory inefficiencies, governance failures, and the absence of standardization plague effective water management.

Fundamentally, it is a human problem rather than merely a legal or administrative problem. Millions are affected by a water shortage, and inaction carries serious consequences for future generations as well as for us. Ensuring that everyone has access to clean water is one of the basics; their health and dignity are tied to it. Urgency needs to come through in our laws and policies, placing people before politics or business.

Change is required in how people perceive water—from thinking it as a source without end to viewing it as a community's responsibility. Management, which can be sustainable only if

approached co-operatively by individuals through conscious saving, laws from the government that are not too lenient, and accountability through the judiciary, needs such measures to be collectively undertaken and not done separately. Such efforts include collection of rainwater, preventing pollution, and proper sharing of it.

Passive talks are history. We have to act fast and look for practical solutions if we really wish to safeguard our lakes, rivers, and groundwater for generations to come. Fairness, survival, and reverence for the environment all fall under the head of water security that is far greater than rules and regulations. Since human life cannot sustain without water, it is also an ethical responsibility toward our earth as custodians to secure and protect this precious wealth.