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**DYING SACRED RIVERS: A CRITICAL LEGAL ANALYSIS OF THE
FAILURE OF INDIA'S ENVIRONMENTAL LAWS IN PROTECTING
THE GANGA AND THE YAMUNA**- Raj Singh¹**Abstract**

Environmental protection is the responsibility of every individual, if degraded by one it will affect the society as a whole. The legal framework operates on the 'Public Trust Doctrine' means Government acts as the trustee for protecting and improving the natural resources on behalf of its fellow individuals². Also it's the duty of the industrial establishments to discharge only the treated effluents. There are various penalties and punishments introduced to limit the degradation of atmosphere. Also there are a number of laws and courts established to restrict this degradation. However, whether all these measures are sufficient to protect our environment? This is the central issue discussed in the present Article. This Article adopts a legal research methodology. It analyses constitutional provisions, government reports, judicial precedents and comparative legal developments relating to river conservation.

Introduction

The environment is defined as *the surroundings of natural, physical and biological conditions including humans, biodiversity and ecology*³. While Pollution refers to *the presence of unwanted pollutant (solid, liquid or gaseous substance presence in the atmosphere) in the environment*⁴.

Environment protection is not a new concern but is deeply rooted in the history. In the archaeological survey of Indus Valley Civilization, there existed a well-developed sewage

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² *M.C. Mehta v. Kamal Nath*, (1997) 1 S.C.C. 388 (India).

³ The Water (Prevention and Control of Pollution) Act, 1974, Act no. of 1974, India Code (1974).

⁴ The Air (Prevention and Control of Pollution) Act, 1981, Act no. 14 of 1981, India Code (1986).

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system along with the roads and tunnel. During the Roman era there were restriction on cutting down the Olive trees because they provide a wide shadow and can survive on less water. All this shows the early humans awareness regarding protection of environmental protection.

The major environmental degradation began with the Industrial Revolution in late 18th century where due to lack of awareness and focus, the nation states exploited the natural resources which resulted in air, water, land and wildlife degradation. It received global recognition by following the identification of Ozone layer depletion in 1985⁵ which forced the global leaders to concern on the issue.

Environmental Protection in India

As a part of the global conferences and facing related problems, India has also implemented a number of environmental laws. Some of them are:

- The Water (Prevention & Control of Pollution) Act, 1974
- The Air (Prevention & Control of Pollution) Act, 1981
- The Environment Protection Act, 1986⁶
- The Wildlife Protection Act, 1972⁷
- The Forest Conservation Act, 1980⁸
- Noise Pollution (Regulation and Control) Rules, 2000

Judicial Evolution of Environmental Law in India

Apart from the legislative enactment of numerous law, Indian Judiciary plays a significant role in strengthening the Environmental Law. By introducing a number of successful Doctrines, Principles and separate bodies the Supreme Court acts as a guardian of environmental laws.

Some of the most significant contribution of the apex court are:

⁵Montreal Protocol, 1987

⁶ The Environment Protection Act, 1986, Act no. 29 of 1986, India Code (1986).

⁷ The Wildlife Protection Act, 1972, Act no. 53 of 1972, India Code (1986).

⁸ The Forest Conservation Act, 1980, Act no. 69 of 1980, India Code (1980).

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- **Introduction of Absolute Liability principle** – there was Strict Liability principle in English law and early Indian law, which states that *an individual or the establishment is strictly liable for harm caused voluntarily or involuntarily to another person*. But there are some exceptions to this principle, hence the apex court introduced the concept of Absolute Liability in India in **Oleum Gas Leak case** which states *that if any environmental harm is done by the factories or industry carrying harmful substance they shall be absolutely liable for the loss*.⁹
 - **Introduction to Polluter Pays principle** – the apex court introduced this concept as *the one who pollutes the environment intentionally or unintentionally shall be responsible to pay compensation to the victim along the cost for the restoration of degraded environment*.¹⁰
 - **Precautionary Principle** – it mandates as *if there is a risk of environmental pollution, in such a case there should be taken the appropriate preventing measures even if there is no scientific data has been obtained*.¹¹
 - **Public Trust Doctrine** – it states that *the natural resources belong to common individual of the state for which the government is made as the trustee, in order to regulate and protect the same*.¹²
 - **Constitution of India**– the Supreme Court declared that the *right to live in a clean environment* as a Fundamental Right under **Article 21**.¹³
- Also, under **article 48A** – *it is the duty of the state to provide clean and protective environment to its fellow citizens*.
- It is also mandated as fundamental duty under **article 51(g)** – *as it's the duty of the individuals to protect and improve the surrounding environment*.

Enforcement Authorities

⁹*M.C. Mehta v. Union of India*, (1987) 1 S.C.C. 395 (India).

¹⁰*Indian Council for enviro- Legal Action v. Union of India*, (1996) 3 S.C.C. 212 (India).

¹¹*Vellore Citizens Welfare Forum v. Union of India*, (1996) 5 S.C.C. 647 (India).

¹²*M.C. Mehta v. Kamal Nath*, (1997) 1 S.C.C. 388 (India).

¹³*Subhas Kumar v. State of Bihar*, (1991) 1 S.C.C. 598 (India).

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Earlier, in late 20th century the environment related matters were filed under Article 226 in High Courts and Article 136 as PIL (Public Interest Litigation) in the Supreme Court. But in 1994 the Apex Court directs the legislature to form a special court for environment related issue in order to reduce the pendency of cases in High Courts.

In the year 2009 parliament passed a bill and National Green Tribunal was established in 2010. It is a special court having exclusive jurisdiction over the environmental matters for which the demands were since 1984. The tribunal consists of 5 branches and bench of 20-40 Judges (10-20 judicial members and 10-20 environmental specialist members) along with a Chairperson.

It has the power to regulate its own proceedings, but its jurisdiction is limited into the 7 environmental acts (above-mentioned) which narrows its scope.

Major Issues

India is a land of rivers where rivers are considered sacred. Ganga and Yamuna are the two largest rivers in Indian subcontinent originated from Uttarakhand and merge in river Ganga at Prayagraj. Both the rivers contribute to one of world's most fertile plain for agriculture of Uttar Pradesh and Bihar.

Despite deemed to be sacred, they remain among the most polluted ones. Yamuna at Delhi if not taken effective measures deemed to be ecologically collapsed soon. The people of Uttar Pradesh and Bihar performed several religious and cultural rituals like 'Kumbh Mela' at and 'Chhath Puja' in the along with 'Ganesh Visarjan' in the holy water of these rivers.

But whether it's been sacred only for the common individuals? Because the condition and pollution of these rivers says something else. Instead of numbers of laws and enforcement authorities, the untreated trade effluents of factories and STP (*sewage treatment plants*) have discharged openly in the rivers consistently since 1993, despite YAP-1 mandates.

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In case of Ganga Kanpur Tanneries Case¹⁴, the Supreme Court verified that the untreated effluents of the Leather Industry of Kanpur becomes a major pollutant of river Ganga. The presence of toxic chemicals such as chloride, sulfates, hydrocarbons along with heavy metals including arsenic and chromium in this leather tanning process leads to kill the useful hydrobiological organisms of river Ganga, making it toxic for the agricultural and domestic purposes. The Apex Court order the Tanneries to discharge only the treated water in the mainstream. This landmark case set standards for the factories and industries to constitute water treatment plants titled *Effluent Treated Plants* (ETPs) to recycle 100% of their used water before discharge into river, maintaining *pH level between 6.5 - 8.5*, ensuring the water is neither too acidic nor too alkaline.

In case of river Yamuna, there is 22 km corridor in Delhi constitutes only 2% of the rivers total length but observes 76-80% of total pollution load¹⁵. Some of the major historical events to clean Yamuna are:

- **The Yamuna Action Plan (1993)**—the state government of Delhi along with the Supreme Court monitors the rivers conditions and ordered to established the STPs (Sewage Treatment Plants) and ETPs to discharge the treated waste. But despite the heavy budget of Rs.1653 crore, the data of Central Pollution Control Board (CPCB) from 2001 to 2023 shows the continual untreated discharge in the river.
- **The 22 km critical stretch (2022-2024)** – the recent data of Delhi Pollution Control Committee (DPCC) shows that there are 24 major open drains discharging wastewater directly into the river. This water includes faecal substances 500% above the safe standards¹⁶.
- Another data of **National Mission for Clean Ganga**— reports the failure of Dissolved Oxygen (DO) level dropped to zero, deeming the river effectively ‘dead’ in the NCT Delhi.¹⁷

¹⁴MC Mehta v. Union of India, (1987) 4 S.C.C. 463 (India).

¹⁵ National Mission for Clean Ganga, Ministry of Jal Shakti, *Performance report on Yamuna Action Plan (2023)*

¹⁶ Delhi Pollution Control Committee, *Annual Report on water quality of river Yamuna (2024)*

¹⁷ National Mission on Clean Ganga, Ministry of Jal Shakti, *Performance Report on Yamuna Action Plan (2023)*

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The devastating condition of Yamuna at Delhi is not a new problem but the downstream of stretch of Yamuna has remained heavily polluted since 1980s when industrial clusters expanded in Delhi which proved in 1994 when CPCB first recorded zero dissolved oxygen in it. For the problem, all are equally liable whether it's been Citizens, Government or the Industries. The individuals on one hand declared the river sacred and on another hand dispose of garbages, flowers, idols and other religious items in the river. The open withdrawal of plastics, domestic waste and the industrial waste in the mainstream drains without undergoing treatment plants openly discharge in the river. Although as an effect of various laws and Supreme Court interference, STPs are established to treat these drains before the discharge but the ground reality is something else. In case of Industrial waste, there are ETPs but even after the treatment, the discharge effluents remains toxic for the river and its aquatic life.

Another report of The Hindu¹⁸ and DPCC confirms that the white foam on the Yamuna Delhi is a result of untreated sewage and chemical pollution. The 22 km stretch consists of various effluents discharges of unregulated sewage and industrial waste. These waste particularly from dyeing units and household waste consists of high phosphates, which pollute the surface water of Yamuna. This raw organic waste requires large amount of oxygen to dissolve which destroys hydrobiological organisms of the river and affect the riverine biodiversity due to deficiency in oxygen level. The problem is even worse when the state government only clears the white foam by spreading a *polyoxypropylene* based defoamer mixed with *silicon dioxide* as an anti-foaming agent dissolving the white toxic foam in Yamuna during religious event like Chhath Puja and Ganesh Visarjan.¹⁹

Some successful River Revivals

The problem of reviving Yamuna and other ecologically collapsing rivers is everyone's duty and responsibility at the same time. Although it's a tough process and not easy to tackle but does not mean it is impossible. Also it can be possible only by the contribution of all the 3 sectors of Citizens, Government and Industries. In order to do one can take examples of the some successful river revival stories. Some of the examples are-

¹⁸ Express News Service, *White Foam in Yamuna due to untreated sewage: DPCC*, The Hindu (15 Nov. 2022)

¹⁹ Delhi Jal Board, *Report on use of Anti-Foaming agents in river Yamuna during festivals* (2022)

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- ❖ **Thames River Revival**– once declared “biologically dead” after World War II to become one of the cleanest urban rivers, revival of Thames River is one of the world’s most noticeable comeback story. Due to the rapid industrialization and urbanization in 19th and 20th century, London became a hub of the numerous industries, drains and introduction of Flush Toilets direct discharge into the river once make zero oxygen level declaring dead for the riverine biodiversity. It looks more like a large drain instead of clean river. But then London’s sewage cleanup process along with the Control of Pollution Act prepared a 25 km deep level Tideway Tunnel, a large metal tunnel beneath the riverbed of Thames to flow the treated sewage water away from the river. Also the mandatory regulation of STPs and ETPs before discharge into drain helps a way better to clean the river. The heavy penalties and fines along with the environmental protection awareness program helps the river Thames to contain more than 125 fish species documented in the river along with other aquatic ecosystem²⁰.
- ❖ **The Kham river Revival** (Chhatrapati Sambhajinagar, Maharashtra)²¹ – it is one of the most praised recent river revival in India which proved that if the authorities and the fellow individuals decide, they can clean and protect any of the mainstream. In Sambhajinagar, the Kham River was declared biologically dead over past years even the children knows it as a drain instead of river. Then a coalition between the **Varroc Foundation** and **EcoSattva** launched a massive drone survey over the river and found almost 249 untreated discharge dumping points. Then along the local authorities and local individuals removes thousands of tonnes of waste including textile, industrial, domestic, sewage. The cleanup of river revives eleven blocked freshwater springs. The STPs was established to treats the drainage water and diverted it with pipelines. Along with it various garbage traps and points are established where solid waste are removed daily by Municipal Corporation. A 10 acre eco- park was also established, where now Turtle Species and native birds has returned²².

²⁰ Environment Agency UK, *State of Thames Report* (2021)

²¹EcoSattva Environmental Solutions, *Kham River Restoration: Drone Survey & Impact Assessment* (2023)

²² World Resources Institute India, *Urban river restoration: Lessons from Kham River, Aurangabad* (2023)

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- ❖ ***The Manorama River Revival***²³– this story proved that if one can decide to achieve a thing by all his true efforts, he can do it. The Manorama River a small river in Gonda district of Uttar Pradesh was blocked by the solid waste and debris since a long time. In 2026 a local youth Aakash Gupta, later along with some other local youths decided to take the matters into his own hands. They entered to clean the river with whatever they have like net, basket, etc. removed nearly 500 kg of plastic, debris and grass from the riverbed making the river visible and flowing again. Their incredible act was even recognized by Prime Minister Mr. Narendra Modi in his ***Mann Ki Baat*** broadcast.

Comparative Analysis

Earth is the only planet suitable to live for humans due to its favorable atmosphere but the humans for their greed degrade this atmosphere willingly and unwillingly in the name of development. Humans are aware about the consequence of the degradation of atmosphere but still for their personal benefits pollute the environment for all. In India, the continued degradation of rivers is not said to be the ultimate fault of lack of legislation but the persistent failures in enforcement, coordination, regulation and accountability. In case of Air Pollution, limits and standards have been instituted by the Central or State Pollution Control Boards. For regulating trees and forest, Forest Conservation Act has been implemented. But in the name of development every law and every prohibited act is openly done.

Failure of Water Pollution Act, 1974– as STPs & ETPs are established but even of treatment they still releases toxic and colored water in the river. In many places still the open drains are directly throwing undischarged water into the rivers. Government had formulated a number of authorities and courts but where are these Officials and what they are doing when our holy Yamuna and Ganga are going to be declared ecologically collapsed.²⁴

Partial success of NGT - The Supreme Court has declared that the environment related issues shall be entertained by National Green Tribunal (NGT), but it have only have 5 branches. Which

²³Youth-led initiative revives Manorama River in Gonda, the Better India report (2024)

²⁴ National Mission for Clean Ganga, *supra* note 15, at 4

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is one of the primary reasons why the environmental matters are not highlighted. When there is Civil & Criminal courts at every district then why there can't be an environment court even at every state? Every year a large amount of fund has been released on the name of restoration of environment, even there is a separate ministry but despite expenditure exceeding Rs.1653 crore under the YAP, the report of CBCP and DPCC continued to record untreated discharge in Yamuna.

Ineffective measures of Municipal Corporations—the municipalities are designed to regulate the sewage, dumping, cleanliness of roads and drains of the cities. But instead of excess funds these bodies failed to affect the monsoon every year. As per the report of Comptroller and Auditor General of India²⁵, since the year of 2000 to 2017 the Bombay Municipal Corporation (BMC) primary master plan of Brihanmumbai Storm Water Disposal System (Brimstoward) was delayed by six years. While the corporation claimed its network are able to handle 50 mm of rain per hour, but the report proved that most of the drains could only handle 25 mm rain per hour along with only half of the drains were actually upgraded.

Still the question is not solved that how much more our natural resources will degrade as a cost of humangreed and carelessness.

Recommendations

As seen earlier, there are a number of laws passed by the legislature to protect and prevent the environment but still there are some defects in it which have to correct for the ultimate results. Despite commitments for restoration of Yamuna by the governments, it results only in promise and not of any proper implementation as per CPCB reports from 1993 – 2023.

- The government along with the authorities can take examples of successful river revival theory and implement it at the utmost effect at the ground level. Only investing funds cannot reverse the story but it should be invest in accurate way on proper research and analysis.

²⁵ Comptroller and Auditor General of India, *Compliance Audit of the Departments of the Government of Maharashtra – Local Bodies, Report no. 1 of 2019 (General & Social Sector)/ Report no. 5 of 2017*

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- There should be an establishment of effective enforcement authorities which ensures proper investigation and harsh punishment for the rule violators.
- NGT has only 5 branches i.e. New Delhi as headquarter, Bhopal as northern branch, Pune as one western branch, Chennai as southern branch and Kolkata as eastern branch. According to the population of India and increasing environmental matters its branches should be increased, at least one or more in every state for the easy approach of individuals.
- There should be strict enforcement of ***Precautionary Principle*** and ***Polluter Pay Principle***²⁶ at ground level.
- There should be an increase in the number of STPs & ETPs plants on every major drain and industry plants to treat the water before withdrawal into rivers. Also there should be strict regular inspection of these STPs & ETPs by fixing the safety limit of water treatment, if results in any deficiency there should be harsh punishment and penalties²⁷.
- There should be an establishment of large dustbins and dumping yards on the shore of the water bodies prohibiting anything thrown in those water bodies. Also there should be annual cleaning and restoration work of these mainstreams.
- The focus should not be only at main cities or big rivers but the supporting rivers or mainstream also need to be protected and improvement.
- No meaningful changes can occur unless the ordinary citizens not decide to contribute their support in any scheme. There should be commencement of proper central and state programs by the government and authorities for the effective disposal of waste materials and to follow the rules regarding environment. There may be use of punishment and fines to force the people follow the law. The ordinary people have to understand that environment protection is not only their duty but is a responsibility too.

Conclusion

²⁶ United Nations Conferences on Environment and Development, 1992, *Principle no. 15 & 16 respectively*

²⁷ National Green Tribunal and Delhi Jal Board recommendations.

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The environmental protection is not just a duty of individuals but also the responsibility which should be performed by utmost efforts. The holy river of Ganga and Yamuna are not just a watercourse for us but are the sacred rivers which ultimately is the result of agricultural prosperity for the whole northern plains. The main causes of these rivers pollution are untreated discharge of sewage and drains containing toxic raw materials. If authorities have to protect and prevent these water-streams they need to enforce strict legal rules and harsh punishment and penalties. The governments should also initiates nation-wide awareness program and the public should also have to give the utmost efforts. Authorities can take the example of successful river revival stories and other above-mentioned effective measure for the Revival and further protection of these and other rivers and water bodies. Strict installation and inspection of STPs and ETPs before withdrawal of water into mainstream shall be mandated. Because, only the clean and healthy favorable environment can continue the human life to flourish.

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