

INVESTIGATION OF ANCIENT AND SOCIAL APPROACH TO CONTROL WATER POLLUTION WITH SPECIAL REFERENCE TO BHOPAL (M.P)

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ABSTRACT

India has blessed the abundant water from river and other water bodies. There was no specific legal system to prevent pollution in **water** till water Act 1974. Environmental **ethics** be find out its Ancient and social approach on water and its Natural resources which has relevancy in protection of water **pollution**. The present existing legal system has revealed dismissal picture. In Vedic time the inhabitants was used to live in **harmony** with nature, particularly to near river or other water bodies. Rigveda, Manusmriti & Charaksanhita have emphasized on the purity of Fresh water and other water bodies sources. The water was regarded as a part of life and livelihood. But in present Scenario the condition of fresh water are very poor due to pollution. Presence of **biochemical** waste, untreated effluents, city waste idol etc. In present time Ideal immersion becoming a main factor of water pollution on occasion of Ganesh, Durga Pooja & other religious occasion. For preventing water pollution the role of citizen and there participation are very vital. In this paper we will present the Ancient and social approach of water and we discussed and Investigate that how to save clean water and we also short out the legal resources to minimize the pollution in water. Here specific area of study will be confined to Bhopal lake city (M.P). The present study is intended to investigate the issue on basis of **Empirical** material, survey based method to find out the understanding of the community role to save the water through ethical and social approach.

KEY WORDS: water, pollution, ethics, harmony, biochemical, Empirical

INTRODUCTION

Water is the most essential necessity of life. It surpasses any other single commodity in general use by the mankind. It is considered that human life cannot be sustained longer than a fortnight without water.¹

Water is strength of the plant and a source of energy for living organism. One of the ancient description of water is “Jeevan” It means life.²

Due to rapid urbanization, municipal bodies face many problems like collection treatment and disposal of water waste, solid wastes, biomedical waste, plastic waste etc. Most of the waste water generated by local bodies is disposed of either on land or into surface water. Land Disposal causes ground water pollution whereas the disposal into surface water affects aquatic life. The article focused on the main pollution which is caused by the Plaster of Paris Ganesh & Durga idols & chemicals paint by Ganesh & Durga idol Immersion during festival in Bhopal local bodies. How do we conserve and manage water? Hydraulic structure in ancient India was adopted. In the 11th century, Bhopal Lake, one of the largest artificial lakes of its time was built by Raja Bhoj. Polar pani is considered as the purest form of natural water.



Area of Study: - Bhopal, the capital of Madhya Pradesh “Heart of India” is also known as “city of lakes”. Bhopal has 33 lakes around the city. Bhopal is located at the upper limit of Vindhya mountain range, with two most beautiful lakes & a Van vihar park besides the upper lake. The majority of Bhopal’s drinking water supply is met by two surface water sources: the Upper Lake and the Kolar reservoir. Besides, there are tube wells, hand pumps and a few large diameter dug wells. Bhopal also has an unaccounted number of privately owned dug wells and bore wells. Out of its total supply, the city gets about 135 MLD from

Kolar, 99 MLD from the Upper Lake and 33 MLD from groundwater. Surface water accounts for 88 per cent of the total supply.

In the past, the city had depended on the Upper Lake for all its drinking water. One of the oldest human-made lakes in India, this mammoth water body was built by **King Bhoj in the 11th century**. A piped water supply system was first developed in the 1940s for the old city area; this was augmented and expanded as per demand. It is said that the lake’s water quality was so good till 1947 that its water could be consumed directly without any treatment. In 1989, the potential yield of the lake was raised from 86 MLD to 135 MLD with the building of the Kolar Dam near Birur.

Water bodies of Bhopal:

S.No	Name of Water Bodies	Water Spread Area(In Hectare)	Ecological Status	Present Use
1	Upper lake	3100	Mesotrophic & part of the lake is Eutrophic	Water Supply, Recreation & Fisheries
2	Lower lake	129	Advance stage of	Raw water supply &

¹ S.M. Shafi, *Environmental Pollution*, (2005) Atlantic Publishers & Distributers, P-133

² J.Ashok A. Desai, *Environmental Jurisprudence*, (Ed 2nd 2002) , Modern Law House, P-5

			Eutrophic	recreation
3	Shahpura lake (Third lake)	9.6	Advance stage of Eutrophic	Recreation & Fisheries
4	Sarangpani lake (piplani)	4.2	Advance stage of Eutrophic	Recreation
5	Motia Talab	1.89	Advance stage of Eutrophic	Washing & Miscellaneous
6	Siddiqui Hussain Talab	1.0	Bog Lake	Abandoned
7	Munshi Hussain Talab	1.2	Eutrophic	Fisheries
8	Lendiya Talab	1.5	Advance stage of Eutrophic	Fisheries
9	Kolar Dam	2850	Mesotrophic	Water supply, recreation, fisheries & Irrigation
10	Kaliasote Dam	126	Mesotrophic	Irrigation
11	Hatai kheda Dam	113	Mesotrophic	Irrigation & supply for industrial area (govindpura)
12	Lahar Pur Reservoir	150	Advance stage of Eutrophic	Irrigation
13	Kerwa Dam	524	Mesotrophic	Irrigation
14	CharImli pond	1.2	Eutrophic	Recreation
15	Neel Bad Tank	4.5	Mesotrophic	Recreation
16	Dhamkheda Village Pond	2.4	Mesotrophic	Potable water & Recreation

OBJECTIVE

Since vedic time the main purpose of social life was to 'live in harmony with nature'. Rigveda, Manusmriti, Charaksanhita, have emphasized on the purity of water and healing & medical value of water. In india, the Rigveda, the Atharvaveda and the Yajurveda, we find many verses in praise of Lord Varun (God of Water) and Lord of Indra. In Yajurveda water was regarded a source of life and grain. In vedic times, water was regarded as a component of life and thus was regarded sacred, not to be polluted.

In modern times, water is held to be a life-line. Civilian activities grew intensively and extensively in river valleys. Water are also used as the means of transportation. This has gradually promoted water pollution.

The Ancient concept 'Water is Jeevan' is accepted in Constitution of India under Article 21 "Right to life & Personal liberty". Right to life includes right to clean drinking water.

1. To critically analyse the Legislative provision on water pollution in India.
2. To study the Judicial Decisions relating to water pollution.
3. To study the problem of Ganesh & Durga idol Immersion during Festival in Bhopal water bodies & make alternative recommendations.

4. Need of Community Role through social investigation.

The Legislative Approach to control water pollution:

A. Ancient India

B. Pre-Independence Legal Approach

C. Post-Independence Legal Approach

A. Ancient India

Water, first appeared on the globe before any living organism. Like air, water is strength of life for every living organism.³ According to Manusmriti (ancient Indian Scriptures) “Water is ‘Jeevan’ means life and it condemns throwing urine, night soil, any dirty substance, blood or poisonous substance in water.” In a way, it dictates maintaining purity of water, which is strength of life on the earth.

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B. Pre-independence Legal Approach

i) Indian Penal Code, 1860

For the purity of water and environment generally is evident from Sec 277 and Sec 278 of IPC, 1860. Sec 277 lays down that whoever voluntarily corrupts or fouls the water of public spring or reservoir will be punished with imprisonment of term which may extend to 3months, or with fine which may extend to five hundred rupees or with both.

Sec 278 lays down that voluntarily vitiating the atmosphere in any place so as to make it noxious shall be punished with fine which may extend to five hundred rupees.

ii) Common Law Remedies

The origin of water pollution control law in India can be traced to the common law remedies introduced in the courts by British in the three Presidency Towns of Calcutta, Madras and Bombay. These Common law remedies were of three categories:

a) Liability for Escape of Noxious Object

The Strict Liability on a person for the damage caused by the escape of a dangerous or noxious object can be traced back to the famous rule in *Rylands v. Fletcher*⁴ wherein justice Blackburn observed:

“We think that true rule of law is that the person, who for his own purposes, brings on to his lands, and collects and keeps there, anything likely to do mischief if it escapes, must keep it there at his own peril and if he does not do so he is prima facie answerable for all the damage which is the natural consequence of its escape.”

b) Careless Use of Noxious article or Pollutant

The careless use of noxious article or pollutant could give rise to an action in law of negligence, as also in the law of nuisance.

c) The Infringement of Property Rights in Water

³ J.Ashok A. Desai, *Environmental Jurisprudence*, (Ed 2nd 2002) , Modern Law House, p- 95

⁴ 1868 LR 3 HL 330

Every riparian owner enjoys a natural right to the flow of water in his stream, substantially in quality and quantity.⁵ In this head it is interesting to note that under the Easement Act, every owner of land has a natural right that within his own limits, the water, which naturally passes or percolates by, over or through his land shall not—before so passing or percolating—be unreasonably polluted by other persons.⁶

C. Post Independence Legal Approach

Constitution of India & Environment

The Constitution which talks about environment protection like:

- Article 51A (g) imposes obligation on State and individual to protect and improve environment and to have compassion to the living creature.
- Article 47 is one of the Directive principles of State Policy which aims to raise standard of living and public health of people and public health of people can not be achieved with good environment and it is the responsibility of the State to promote measures which protects environment.
- Article 48 comprehensively states that the State shall protect the environment.
- Article 21 of the Constitution of India talks about the Right to life and Right to live in pollution free environment and this is only possible when the environment protection is given staple priority and steps are being taken in order to provide Sustainable Development to the coming generations.
- The Right to livelihood also comes under Article 21 and it is a right of a person to earn livelihood and if a person is displaced due to some inimical policies of the government then such rights stands violated.

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

The Water (Prevention and Control of Pollution) Act, 1974 is the first all India statute relating to the control of pollution in India. Water is a state subject in the distribution of legislative powers. A few states requested the Central Government to exercise its powers under Article 252 of the constitution and pass such a law. Accordingly Parliament enacted the water (Prevention and Control of Pollution) Act, 1974.⁷

The purpose of the legislation is not only the prevention and control of water pollution but also maintenance and restoration of the wholesomeness of water.

Critical analysis-

Lack of Public involvement: Under the existing enactment the affected group could not go to the court directly without the sanction of the board. This is major defect in implementing the provision of the act and stanza against achieving the declared goals⁸.

Offences & Punishment: Offences are not specifically defined and the punishments prescribed are not applicable for all possible violations. The punishments mentioned are not such as to give a

⁵ Wood v. Wand 1849 3 EX. 748

⁶ Illustration (f) to sec 7 of the Indian Easement Act, 1882 in the constitution. However, states felt the need for a national legislation on pollution of water.

⁷ Leelakrishnan, Environmental Law Case Book, Butterworths, Ed 2 (2007), Lexis Nexus Publication

⁸ Diwan Paras, Environment Administration Law and Judicial Attitude, Ed 2(1997), Deep & Deep Publications, p-17

deterrent effect. Punishment is provided only if the violation is done “Knowingly”. It is not provided for “negligent” acts.

Judicial Approach to control water pollution

Our Judicial has contributed & given guidelines in several cases regarding control water pollution & its Significance for alive.

In *M.C v Mehta vs Union of India*⁹, the Supreme Court dealt with pollution of Ganga water due to the negligence of the tanneries on its bank in establishing primary treatment plants.

*MC Mehta v. Union of India*¹⁰, is a continuation of the case which empowered municipalities and the pollution control board to take immediate steps of remedying the problem.

*Ajay Construction v Kakateeya Nagar Co-Op Housing Society Ltd*¹¹, is a case relating to improper drainage resulting in pollution of water.

In *MC Mehta v. State of Orissa*¹², the Orissa High Court dealt with the same question of providing sewage system when a medical college complex took its shape.

In *Vijayanagar Education Trust v. KSPCB, Bangalore*¹³, the Karnataka High court adverted to the concept of “Deemed consent” in the Water Act and permitted competition of a medical college hospital, without the board’s actual consent.

In *Mandu Distilleries Pvt. Ltd. V MP Pradushan Nivaran Mandal, Bhopal*¹⁴, the indore bench of the Madhya Pradesh High Court is of the view that the direction to close a polluting industry without notice cannot be sustained.

In *AP Pollution Control Board v. MV Nayudu*,¹⁵ the S.C. devised the means of effectively preventing location of a polluting industry on the banks of lakes supplying drinking water to the city.

In *Attakoya Thangal v. UoI*,¹⁶ H.C. held that, “The right to sweet water and the right to free air are attributes of the right to life, for these are the basic elements which sustain life itself.”

In *Subhash Kumar v. State of Bihar*⁹, “The right to life enshrined in Art- 21 includes the right to enjoyment of pollution free water and air for the full enjoyment of life. If anything endangers or impairs the quality of life, an affected person or a person genuinely interested in the protection of society would have recourse to Art. 32.”

"According to Thomas Hobbes in the state of nature everyone is entitled to everything, but this lead to friction".¹⁷

"Dean Roscoe Pound observed that Law is the body of Knowledge and experience with the aid of which a large part of social engineering which carried on it is more than a body of rules"¹⁸ In term of usual context it is meant for making, interpreting and applying law. So social factor & its effects must be considered.

⁹ AIR 1988 SC 1037

¹⁰ AIR 1988 SC 1115

¹¹ AIR 1991 AP 294

¹² AIR 1992 Ori 225

¹³ AIR 2002 Kant 123

¹⁴ AIR 1995 MP 57

¹⁵ AIR 1999 SC 812

¹⁶ 1990 KLT 580

¹⁷ AIR 1991 SC 420

¹⁸ Roscoe Pound (1870-1964) was distinguished American Legal system & war founder of Sociological Jurisprudence

ANALYSIS

Following Guidelines are given to protect water from pollution and save 'Sarovar' as a 'Dharohar' & the main aim of these guidelines to make pollution free Air, water & make full enjoyment of life. It is the state duty to make effective regulation & setup institution for implications.

What is happening ?:

The Committee the committee which is constituted from different section of the people and Municipal Corporation shall decide the landing place like Kamalpati, prempura, Katlapur & other places in sufficient numbers & encourage the people to immerse the Ganesh & Durga idol in these places nearly 2000 idol are dumping in the water bodies. It will help to maintain the balance between environment protection & traditional practice to immerse the Ganesh & Durga idol in water.

It is the direction of state executive that no manufacturer of Ganesh idol shall use the plaster of Paris while manufacturing Ganesh Idol. He shall use any other alternative which would not cause water pollution. The committee shall make a map directing the people towards Ganesh Idol immersion place & which needs to be published in local area fifteen days prior to the Ganesh & Durga farewell day. It is also duty of the municipality to establish Garbage bin to dump several accessories used during the Ganesh Puja like Thermocole, plastic flowers, cloth, incense, camphor.

All human activities: Domestic, Commerical, industrial, solid wastes. These activities are required to dispose off. The problem of solid waste is more acute. This waste is being dumped anywhere & everywhere. Particularly along with ghat of the river, Lakh, pond. It has poses a problem of water quality.

Bhopal's Upper and Lower lakes together constitute what is known as the Bhoj wetland. Of these two, the Upper Lake is one of the major sources of water for the city, providing drinking water to 40 per cent of the population. The inflow of raw sewage into the two lakes has deteriorated their water quality.

Most of the city's sewage ends up eventually in the Patra, Halali and Betwa rivers. These rivers are highly polluted; their waters meet bathing and irrigation standards, but not those for drinking.

Water Pollution due to Ganesh & Durga Idol Visarjan has been disclosed - On the basis of social investigation fact profile of the landing places around the water bodies in the lake city Bhopal. In Bhopal landing places like prempura, kamlapati, katlapura, these areas are affected by idol immersion. These idols take several months to dissolved in water and in the process poison the water of lake & several accessories and decorate items of the idol increases the acidity and heavy metal contain water and adding more strain to the already polluted water and lakes. During Social investigations we found that careless immersion of idol in water bodies blocks the natural flow of water. This result in stagnation and breeding of mosquitoes and other harmful pests. And these area the same polluted water gets pumped into many homes.

And these polluting drinking water sources causing such problems like a :-

- Berating Problems
- Blood Disease
- Skin Disease

And at last we found that such pollution also damaging our eco system like :-

- Killing the fishes
- Damaging the plants
- Blocking the natural flow of water and causing stagnation.

Effect of water pollution strongly impact the balance of nature which ultimately impacts all human.

Think Ahead

Bhopal has, traditionally, developed along the Upper and Lower lakes, without any plans for protecting the two from sewage pollution. Faced with growing contamination and depletion, the city is now forced to look towards the Narmada river to solve its water crisis, and that at a huge cost. With the expansion of the city, its water demand was expected to go up to 344 MLD in 2011 for a projected population of 2 million.

Join hands to save a lake, but is it already too late?

The Upper Lake or Badee Talab, a picturesque water body of Bhopal, is steadily disappearing. A report in the daily *Business Standard* says that the Upper Lake has almost been reduced to the size of a pool. The water level has reached an all-time low of 502 metre (m) against the minimum 504 m required. The main sources, the Ujhawan and Kolans rivers that feed this lake, have turned into polluted canals.

The Upper Lake was built in the 11th century by King Bhoj by constructing an earthen dam across the Kolans river, a rain-fed tributary of the Betwa. It has a partial urban component in its catchment, 361 sq km in area, on the eastern end while the remainder is rural. The Lower Lake, locally known as Chhota Talab, was built in the 18th century by a local *nawab* and is situated at the east end of the Upper Lake; it is fully surrounded by built-up areas. Compared to the Upper Lake, it has a small catchment area of 9.60 sq km. These two lakes make up the biodiversity-rich Bhoj wetland, which supports a wide variety of flora and fauna. Over 20,000 birds have been observed here every year. The area has been recognised as a wetland of international importance under the Ramsar Convention of 1971.

Both the lakes have shrunk appreciably. By 2009, the Upper Lake had reduced from the initial 30 sq km to 8 sq km. The Lower Lake had come down to 2 sq m from 8 sq km. The various threats to the twin lakes include siltation due to soil erosion of the catchment area and inflow of untreated sewage and wastewater from the surrounding human settlements. The lakes are also used daily by more than 2,000 people to bath, wash clothes and clean vehicles; the immersion of idols and *tazias* is common in these waterbodies. The catchment areas have been encroached upon for slum development, agricultural activities and tourism. The use of motorboats by the tourism department has also increased the pollution level of the lakes' waters.

In 2009, the district administration began rationing the water supply from the Upper Lake. The *Lake Princess*, a large cruise boat that ferried hundreds around the lake, was shifted to a reservoir because of the extremely low water level. Since the Lower Lake is located within an urban area, it has been subjected to many negative anthropogenic stresses, and its degradation has been much more than the Upper Lake.

Efforts of the Govt. & the community

In 1995, the state government initiated the Rs 250-crore Bhoj Wetland Project. In 2005, the Lake Conservation Committee sought help from the private sector. A master plan was launched to keep the 1,000-year-old water body free from city garbage.

Public interest litigation was filed in 2007 by the local citizens' forum (an informal pressure group of prominent citizens) with the Madhya Pradesh State Human Rights Commission, which brought all the issues relating to conservation of the wetland to the notice of the government.

At the end of 2008, the situation in the Upper Lake deteriorated due to poor quality of water as well as reduction of storage capacity. The problem was compounded with less rainfall, resulting in decrease in the supply of water. In November 2008, a joint drive was initiated by the district

administration, district police and Bhopal Municipal Corporation, in which encroachments were removed from around 304 hectares of Upper Lake land.

In 2009, the state government decided to act. It began a public campaign – *Apna sarovar apni dharohar Bada Taal sanrakshan abhiyan* – to increase the lake's capacity. The campaign involved voluntary organisations, students, professionals and industrialists. The state government issued appeals asking people, including bird watchers who frequent the lake, to contribute. However, there were allegations of siphoning off of crores of rupees meant for the lake's conservation. The Bhopal Municipal Corporation reportedly made exaggerated claims like carting away silt in hundreds of trucks, when the actual number was much less.

CONCLUSION

On the discussion & finding of social view on water problems. It is admitted that the Water itself a life form of nature & has become a basic part of Human necessity. The Social Science is the mother of all sciences, where human is placed in the centre point. The problem of Bhopal lake city has been studied which is surrounded by several lakes. The underlined suggestion are being given for observation:

- (a) Water Resources places be treated eco-friendly rather than Tourism & recreational centre. Since it is viewed as holy places.
- (b) Encroachment on catchment Area be shifted approx. 1km outside the lake.
- (c) Organized Rally for Water, Educational seminar, picture competition, paste the picture in the city for awareness of water pollution and save 'Sarovar' as a 'Dharohar'.
- (d) Minimized the human activities like Immersion of Idols, Dumping of solid waste, washing clothes and vehicles, bathing & boating.
- (e) Display Board near the water resource places that does not dispose plastic bag and pooja samagaree in lake & other water bodies.
- (f) Sewage system be improved before draining into the water bodies.
- (g) Save water display Board be posted near the water resources.
- (h) Water activist views and efforts be recognized.
- (i) Water view places be setup in the lake.

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