

**ASSESSMENT OF GANGA SAROVAR WATER QUALITY AND SEMI- BURNT IDOL  
SKELETONS IMMERSSED UNTRADITIONALLY AND UNSCIENTIFICALLY IN  
TEMPORARY PONDS: A PERNICIOUS EVENTS**

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**ABSTRACT**

Bharat is a culture rich country in which various cultural and religious related festivals are organized usually for reforming life. Idols are an image of a particular God which is used as a symbol of worship. After worshipping, these idols are immersed into holy flowing water bodies. Idols are constructed using various materials which damage water quality after immersion. Paints which are used to colour these idols contain various toxic metals. These metals are carcinogenic. The materials of idols are frequently found floating on the water. The water quality parameters are deteriorated after decomposition of idol materials. The heavy metals concentrations are increased in water. Heavy metal pollution caused by idol immersion can damage the ecosystem.

Several physico-chemical parameters were estimated using standard techniques. Most of the studies showed significant changes in the water quality parameters after immersion. The significant changes in physic-chemical properties of water revealed increased in all other parameters.

In view of the observed changes in the water quality, it has been suggested that there is need to aware administration for proper use of idol disposal. Idol skeletons disposal should be performed as per Sanskrit script (tradition) and choosing appropriate place for proper solution of idol immersion after completing rituals. The case study also revealed that temporary pond should not be made near bank of river Ganga and Idol burning process must be stopped. After 40 days, semi-burnt idols left on edge of Ganga Sarovar-I is traditionally unfair step and dropped negative impact on principles of humanity and ethical values of country..

**KEYWORDS:** Ganga water, Idol immersion, semi-burnt Idol, Ganga sarovar, Pollution, Physicochemical parameters..

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**INTRODUCTION**

Traditions and cultures are the main symbol of each county. India is a rich cultural country in which diverse cultural and religious festivals are organized throughout the year for reforming human duties, ethical values and enhancing eternal energy<sup>1-2</sup>. In Indian culture, various religious festivals are organized for development of ethical values and maintain humanities from generation to generation<sup>3</sup>. Idol is an image of a deity to which religious worship is addressed or any person or thing regarded with admiration, adoration or devotion and also a religious. Idols are a visual image of Gods/Goddesses which is used as an object of worship in personally and/or collective forms. It is an image of a god/Goddess which is used as an object of worship for maintaining concentration in devotees. In India, idols are worshipped with all rituals on various occasions in a particular month of the year. After worship, these idols are immersed into flowing water bodies. The physico-chemical and biological characteristics of natural water bodies were reported by several researchers.<sup>4-7</sup> Idol immersion activities in water bodies are adding to the pollution load. Non-biodegradable materials and synthetic paints used for making these deities are serious threat to aquatic life and environment. The whole process Idol immersion is shown in Figure 1.

**Everyone an Idol-Worshipper**

There is no direct reference to worship of idols in the Vedas. The Puranas and the Agamas give descriptions of idol-worship both in the houses and in the temples. Idol-worship is not peculiar to Hinduism. Christians worship the Cross. They have the image of the Cross in their mind. The Mohammedans keep the image of the Kaba stone and Tajiya

(Figure 2) where they kneel and do prayers. The difference is not of one kind, but only one of degree. All worshippers, however, intellectual they may be, generate a form in the mind and make the mind dwell on that image.

Everyone is an idol-worshipper. Pictures, drawings, etc., are only forms of Pratima or the idol. A gross mind needs to concrete symbol as a prop or Alamba and a subtle mind requires an abstract symbol. Even a Vedanties has the symbol OM for fixing the wandering mind. It is not only the pictures or images in stone and in wood, that are idols but dialectics and leaders also become idols. In present case study, the effects of idol immersion were performed in temporary pond named as Ganga Sarovar-I and II constructed by district administration after completion of all rituals process (Figures 3-6), On observation, it was noticed that the skeleton of dummies of Idols were burnt partially and left semi-burnt near immersion pond (Ganga Sarovar-I). It is an assessment of impact of semi-burnt Idols which is inhuman (Figures 7-8).

## EXPERIMENTAL PROCEDURE

The experimental sites are situated on holy Ganga river bank, Varanasi, India. These sites are located at the convex of Ganga bank area in the south north of Varanasi (25° 18' N latitude, 83° 01' E longitude and 76.19 m above the mean sea level). It is situated in the eastern Gangetic plains of India (Figure 9).

Present study was carried out in the simulated conditions to find out the impact of different idols on temporary pond water. The water sample was collected from Ganga Sarovar-I and II after 30 days. The contaminated pond water samples were also collected for investigation of physico-chemical parameters of pond water. Collected water samples were taken out for analysis of physicochemical parameters such as pH, Alkalinity, Total Hardness (TH), Total Dissolved Solids (TDS), Total Dissolve Solids (TDS), Dissolved Oxygen (DO), Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) test as per the standard procedure of APHA, (2005). Microbial population was studied using standard biological techniques. It was also observed that skeleton of idols are removed from Ganga sarovar –I and finally left on edge of Ganga Sarovar-I in semi burned condition.

## RESULTS AND DISCUSSION

The case study was focused on assessment physico-chemical characteristics of the Ganga Sarovar-I and II water. The study revealed that idol immersion activity has negative impact on pond water quality.

### 3.1 Effect of Idol immersion on Physicochemical Parameters

Except DO, all other physico-chemical parameters show increase in their concentration after 30 days of idol immersion in stagnant Ganga Sarovar-I and II water. The results of present investigations are shown in Table 1.

The pH of stagnant Ganga Sarovar-I and II water is important. The pH of water is major factor because many chemical reactions and microbial activities are governed by it<sup>8</sup>. The pH range varied from 4.7 to 5.9 for temporary pond water. The minimum pH (6.8) was observed on immersion while pH 4.7 was observed during immersion period of idols in pond water (Table 1).

The dissolved oxygen plays important role to measure the quality of water. There were no change observed in DO during the investigation period the variation was found in stagnant Ganga Sarovar-I and II water (Table 1). Dissolved oxygen is reduced by the biological decay of organic material such as decaying paints and idol making materials.

Biochemical oxygen demand is the amount of oxygen required by microorganisms for decomposition of organic matter in the water. BOD gives an idea about the quantity of biodegradable organic substances present in water. The higher BOD values indicate the presence of various biodegradable organic matters. In the present study maximum BOD value was observed during immersion period (Table 1) due to increased amount of decomposition of organic matter of idols into the Ganga Sarovar-I and Ganga Sarovar-II.

COD is the capacity of water to consume oxygen during the decomposition of organic matter. It helps to indicate the pollution status of water body. The values of COD was found to vary from Ganga Sarovar-I and to Ganga Sarovar-II water respectively (Table-1). COD of Ganga Sarovar I water increased with increasing incubation period which was possibly due to decomposition of the immersed idol materials<sup>9</sup>.

TDS is directly related to the purity and quality of water. As represented in the Table 1, the total dissolved solid value of Ganga Sarovar-I and Ganga Sarovar-II increased with increasing incubation period. The total dissolved solid values were found to increase significantly due to dissolution of idols colouring materials and different days of incubation.

Presence of suspended solids in water transparency is an impotent index of eutrophication. Huge quantities of inorganic and organic materials were added to the Ganga Sarovar-I and Ganga Sarovar-II after 30 days of idol immersion which contribute much in increasing TSS. High turbidity creates damage to aquatic microbial community. Present investigation showed that TSS, turbidity and bad smelling increased or transparency of pond water decreased up to it black appearance after few day idol immersion (Table 1) due to addition of different colouring materials of idols<sup>10-11</sup>.

Hardness is an important factor for detecting water quality. In the present investigation, the maximum hardness recorded in Ganga Sarovar-II in compared to Ganga Sarovar-I and flowing Ganga water after 30 days idol immersion (Table 1). High value of total hardness during immersion was observed by different researchers<sup>12-14</sup>.

The results obtained by present study indicated that concentration of all anions such as nitrate, phosphate, sulphate and chloride are increased in Ganga Sarovar-I and Ganga Sarovar-II due to microbial attack on idols materials (Table 1).

**Table 1. Water quality parameters of pond water**

S. No	Parameters	Ganga Sarovar-I (after 30 days)	Ganga Sarovar-II (after 30 days)
1	pH	5.2	5.1
2	DO (mg/L)	1.2	1.3
3	BOD(mg/L)	18.3	20.4
4	COD (mg/L)D	63.6	73.4
5	TH(mg/L)	272.7	299.8
6	TA (mg/L)	263.4	302.3
7	TDS(mg/L)	776.4	937.2
8	TSS (mg/L)	2730.6	2672.7
9	NO <sub>3</sub> <sup>-</sup>	87.3	98.6
10	PO <sub>4</sub> <sup>-</sup>	0.76	0.96
11	SO <sub>4</sub> <sup>-</sup>	89.7	132.3
12	Cl-	43.7	63.2
13	TMP (cfu/mlx10 <sup>-4</sup> )	8.9	9.4
14	Smell/appearance	Very Bad/Black	Very Bad/Black

Conventional dilution plate count method for microorganism on semi-synthetic medium resulted in a mixed population<sup>15</sup>. These microbial groups were growing in oxygen and nutrients rich pond water after idol immersion. The microbial population was enumerated and given in Table 1. Results indicated higher microbial load in Ganga Sarovar-I and Ganga Sarovar-II due to large number of idols immersion.

### 3.2 Effects of Idol Immersion on the Water Quality

The immersion of idols in artificial ponds particularly developed for this purpose by administration are dangerous due to high growth of microbial populations and their attack on idols making organic, inorganic and polymeric materials because idol making material are good nutrient source for microorganism. After that many toxic intermediates and metal ions are also produced in stagnant pond water. Enamel paint based modern process of making idols have major issue of toxicity and its bad impact on the environment and is not accepted by traditional Indian mythology.

### 3.3 Significance of Idol-Worshipping

Rituals bind the soul back to supreme power “God”, and its called religion<sup>1</sup>. Religion means dedication; it shows the best way for the attainment of God-realisation. ‘Pooja’ is commonly known for *ritual worship*, for which there are

numerous other name such as Archana, Vandana, Bhajana, etc. The object of worship is the Ishta or guiding Deity or the particular form of the Deity whom the devotee worships for gaining energy and making physical mental and social life stress free.

An image (particular) or one of the useful emblems is likely to raise in the mind of the worshipper. Everybody has got predilection for a symbol, emblem or image. Idol or Murti (Vigraha) of sun, fire, water, Ganga, and Shiv-Linga are all symbols or Pratikas of God/Goddess which help the aspirants to attain one-pointedness of mind and purity of heart. These are all personal inclinations in the worshipper due to his belief in their special efficacy for him. Psychologically, all this means that a particular mind finds that it works best in the direction desired by means of particular instruments or emblems or images.

Idol is an external symbol of God for worship. It is a reminder of God. The material image calls up the mental idea. Steadiness of mind is obtained by image-worship. The worshipper will have to associate the ideas of infinity, omnipotence, omniscience, purity, perfection, freedom, holiness, truth and omnipresence. It is not possible for all to fix the mind on the absolute or the infinite. A concrete form is necessary for the vast majority for practicing concentration. To behold God everywhere and to practice the presence of God is not possible for the ordinary man. Idol-worship is the easiest form of worship for beginners and ordinary persons.

A symbol is absolutely indispensable for fixing the mind. The mind wants a prop to lean upon. It cannot have a conception of the absolute without prop worshipping. Without the help of some external aid, in the initial stages, the mind cannot be centralized. In the beginning, concentration or meditation is not possible without a symbol. The second stage of meditation begins only after the above said method

## CONCLUSIONS

Firstly, the major findings of the both scientific and ethical observation revealed that the water quality of temporary pond and human values degrades. The higher concentration of parameters studied is probably due to heavy pollution load after the immersions, resulting in the deterioration of the Ganga Sarovar-I and II water which creates major ground water contamination and is definitely the major cause of holy Ganga river pollution.

Secondly, there is nothing wrong in worshipping an idol. You must superimpose God and His attributes on the idol. You must think of the hidden God Symbol in the selective idol. The aspirant gradually begins to feel that the God/Goddesses, he/she worships is in the idol, in the hearts of all creatures and in all the names and forms of this universe. He begins to feel His presence everywhere. Idol-worship is only the beginning of any religion. The Hindu scriptures, which prescribe idol-worship for beginners, speak of meditation on the Infinite or the Absolute for advanced aspirants.

The supreme state is Self-realization which initiate with the worship of symbols. Mainly, the performance of rituals and finally Visarjana is performed in flowing holy water because as per description of Hindu scriptures water is main source for origin of all Devata. They prescribe gross forms of Sadhana or spiritual practices for the neophytes or beginners with gross mind and give lessons on abstract energy for the advanced aspirants who are endowed with pure, subtle and sharp intellect. The human soul makes different kinds of attempts to grasp and realise the Infinite or the Absolute according to his strength or degree of evolution. He soars higher and higher, gathers more and more strength, and eventually merges himself in the Supreme and attains oneness or identity.

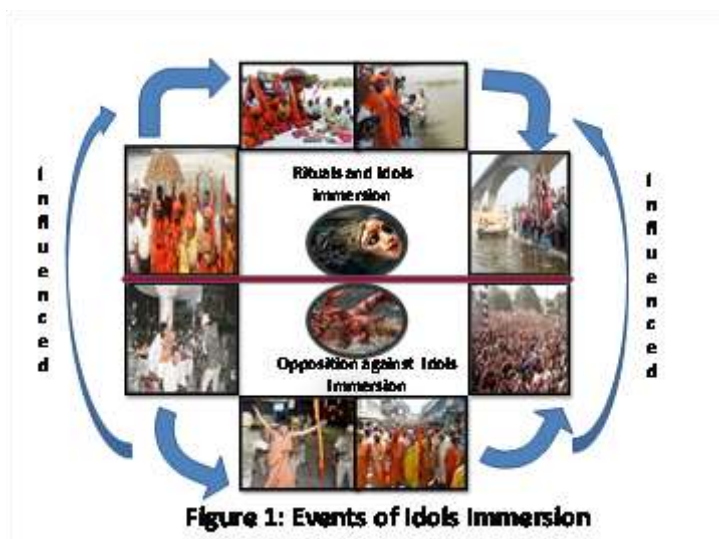
While articulating the idol, the state of mind of devotee transcended the abode of pious consciousness relating to supreme inheritance of that particular Deities and as such until and unless the same has not properly dissolved in Nature with spirit of Divine Order, the waves of that subtle consciousness remain in atmosphere unhonoured and causes negative impact in the area of burring site as well on the state of mind of the devotees too. Hence, it is imperative for the worshiper to strictly follow the religious code and no one, particularly administration has no any right to create hindrances in performing the final ritual of devotee at any level.

## RECOMMENDATIONS

On the basis present study, it has been suggested that there is need to aware people and administration for proper use of idol disposal. Idol skeletons disposal should be performed as per Sanskrit script (tradition) and choosing appropriate place for proper solution of idol immersion after completing rituals.

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**Figure 1: Events of Idols Immersion**





*Figure 2: Tajiya immersed in holy Ganga river after Tajiya Festival*



*Figure 3: Observation of temporary Ganga Sarovar near Ganga river bank by Administrative authorities and Saints (sadhoo/sant)*



*Figure 4: Performing Idol immersion in Ganga Sarovar after initiated rituals*



*Figure 5: Idol immersed in Ganga Sarovar-I*



*Figure 6: Idol immersed in Ganga Sarovar-II and idols material left in pond*





*Figure 7: Semi-burnt idols skeletons removed from Ganga sarovar-I*



*Figure 8: Semi-burnt idols skeletons removed from Ganga sarovar-I*





Figure 9: Site map. Ganga Sarovar-I (GS-I) and Ganga Sarovar-II (GS-II)