

IMPACT OF IDOL IMMERSION DURING GANESH PUJA ON WATER QUALITY OF AQUATIC BODIES -2023



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1. Introduction

In Hindu festivals like Ganesh Puja, Biswakarma Puja, Durga Puja, Gajalaxmi puja, Kali Puja, Saraswati puja etc. idols of deities are worshipped and after the puja is over, immersed in waterbodies as a part of ritual. Alongwith idols, puja left-overs are also immersed in the waterbodies. However, immersion of idols made up of plaster of paris, painted with synthetic colours cause pollution in water bodies. With the increase in number of puja organising committees in a locality, increased use of idols made up of plaster of paris, use of synthetic colours to make the idols shiny, colourful and attractive, increase in the size of idols as a crowd puller has, in turn, increased the concern over water pollution due to immersion activities. Moreover, decreased flow in rivers has also increased the probability of contamination of water bodies. Besides these, dumping of puja left-overs such as vastras on idols, flowers, decorating materials (made of paper and plastic), etc. in water bodies during this immersion process has also increased the risk of contamination of water bodies as well as deteriorates the aesthetic quality of the water bodies. All these factors contribute to the degradation of water quality and impact the aquatic ecosystem and dependability of inhabitants at the immersion sites as well as its down-streams.

With this background, Central Pollution Control Board (CPCB) has issued the "Revised Guidelines for Idol Immersion (12.5.2020)" for implementation during immersion of idols in aquatic bodies with the objective to minimize the pollution load on aquatic bodies and to create an awareness to use ecofriendly idols.

2. Revised Guideline for Idol Immersion

The revised guideline prescribes the roles of idol makers, Puja Committee Organisers, local bodies/ authorities, other stake holders and State Pollution Control Boards or Pollution Control committees and public for implementation of the Guideline to minimize the impact of idol immersion activities on the aquatic bodies.

These guidelines have been prepared with a view to use eco-friendly idols as well as to ensure environmental friendly idol immersion without affecting the quality of water bodies while ensuring religious observance. These guidelines emphasize the need for restriction on single use plastic materials for making idols, use of naturally occurring



colors for coloring idols, imposing restrictions on size of the idol, construction of temporary synthetic lined immersion ponds of adequate capacity, safe disposal of solid wastes generated during visarjan/immersion activities, etc.

In view of changing scenario for safe disposal of idol immersion in water bodies in cities, towns & rural areas, CPCB has revised "Guidelines for Idol Immersion" (PROBES/136/2010) in the year 2020 after a thorough discussion of comments/suggestions received from stakeholders. The "Revised Guidelines for Idol immersion (12.5.2020)" issued by CPCB emphasized the need of identification of idol makers for manufacture of environment friendly idols, coloring by natural and biodegradable colours only, use of clay for idol making, ban of thermocol and single use plastics in decoration and prasad sevan, safe practices during immersion to prevent casualties and imposition of fines. The revised guideline has been made effective from Dt. 01.01.2021 and may be downloaded from the website of CPCB and also of SPCB. (Weblink for Odisha SPCB : http://ospcboard.org/wp-content/uploads/2020/06/295_1589273986_mediaphoto24365.pdf). The salient features of the Revised Guidelines are as follows.

(a) General Guidelines for idol makers

- Craftsmen or artisans involved in making idols should be registered with the civic bodies, and should involve in making eco-friendly idols.
- Use of traditional clay for making idols should be encouraged.
- Use of water soluble, non-toxic natural dyes should be encouraged to colour the idols rather than painting of idols.
- In case of large scale Idol manufacturers (at least involved in making more than 100 idols in a day) shall obtain registration from the concerned ULBs (registration fee along with a deposit as decided by the ULB depending on the idol making capacity) and failing to comply with these guidelines or any violation of registration conditions, the deposit shall be forfeited by the ULB apart from prohibition of idol making at least for two years.

(b) General Guidelines for Puja Committee Organisers

- As far as possible, low height and eco-friendly idols (made with natural clay, idols stuffed with eco-friendly food materials, idols decorated with biodegradable, organic colours only should be used for offering poojas to avoid impact on environment.
- In the interest of protection of the environment, Pooja Organizing Committees should procure eco-friendly idols only from the respective ULBs registered or authorised craftsman or artisans.
- Pooja Organising Committees should seek prior permission from concerned ULB as the case may be by providing management plan and the required provisions for ensuring safe idol immersion during festival season in advance for making necessary arrangements in consultation with the concerned departments.
- Ban on use of single use plastic materials, thermocol for decoration and Prasad sevans purposes.
- Worship material like flowers, Patri (leaves), vastras (clothes), decorating materials (made of paper and bio-degradable or compostable plastic but not single use plastic) etc. should be ensured to remove before immersion of idols and segregated in colour coded bins provided at the designated idol immersion areas/spots.

(c) General Guidelines for idol immersion

- Mass awareness programmes should be conducted to aware the Public on ill effects of idol immersion.
- All idols should be immersed in the designated area for idol immersion which is cordoned, barricaded and preferably lined with synthetic liner. After immersion, the liner should be removed to collect the dumped materials for final disposal at appropriate places.

(d) General Guidelines for Local bodies/ Authorities

- In the interest of protection of environment, Urban and Local bodies (ULBs) shall impose restrictions on height of the idol to the idol making agencies or craftsman or artisans (lesser the size of the idol better would be the immersion process and

less consumption of materials required for making idols) depending on the availability of water bodies, provisions made for idol immersions by the ULBs.

- Local bodies/ Authorities should identify adequate number of idol immersion spots to avoid overcrowding and to reduce pollution load on the water bodies. Such spots should be notified and informed to the Puja Committees through awareness programmes.
- At the immersion of sites, burning of solid wastes so generated during the immersion of idols, should be prohibited.
- Within 24 hours of completion of idol immersion activities, the left over materials at the immersion sites should be collected by the local bodies for final disposal at appropriate places.
- In case of immersion of idols in rivers and lakes, arrangements may be made for construction of temporary confined ponds with earthen bunds for the purpose of immersion of idols. After the completion of immersion, supernatant water may be allowed to flow as usual after checking for colour and turbidity. Lime may be allowed to the temporary confined pond.
- Mass awareness programmes may be conducted to educate the people on ill effects of toxic idol immersion.
- Encourage the resident welfare associations in a city or town to create temporary ponds/tanks of suitable size and adequate capacity within their campus with necessary provision for collection and storage of segregated waste prior to immersion. Individual households may be encouraged to utilize such ponds for immersion purpose.

e) Role of State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs)

- Concerned SPCB/ PCC should conduct water quality monitoring of water bodies at the immersion sites preferably in Class-I cities (having population more than one lac), at three stages i.e. Pre-immersion, during immersion and post-immersion. During post-festival, samples should be collected preferably after 3rd, 5th, 7th and 9th day of the festival.

- For ascertaining water quality, physico-chemical parameters such as pH, DO, Colour, BOD, COD, Conductivity, Turbidity, TDS, Chloride, TSS, Hardness, Total alkalinity and Metals such as Chromium, lead, zinc, copper Cadmium, Mercury, Antimony, Barium, Cobalt, Manganese, Strontium may be analysed.
- Apart from the water samples, sediment samples also be collected during pre-immersion, during immersion and post-immersion and collected sediment samples be analysed for the metals (such as Chromium, Lead, Zinc, Copper, Cadmium, Mercury, Antimony, Barium, Cobalt, Manganese, Strontium).
- Detailed reports may be posted on the SPCBs/PCCs website in public domain. Detailed reports also be shared with Ministry of Environment, Forest and Climate Change (MoEF & CC), Ministry of Jal Shakti (MoJS) and CPCB.

3. Actions taken by the State Pollution Control Board, Odisha

In the year 2015, Hon'ble High Court of Orissa have intervened in this matter and vide their order dated 07.10.2015 directed the State Pollution Control Board, Odisha to render necessary assistance to the District Collectors and ensure strict compliances of the Guidelines for Idol Immersion during the Durga Puja and other pujas involving idol immersion. In compliance to this order, every year Board is making an intensive as well as proactive approach to ensure the implementation of the Guidelines in all the urban local bodies of the State.

Further, the Forest, Environment and Climate Change Department in Govt. of Odisha has notified the "**Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules, 2021**" vide Notification No. 17937 dated 14.10.2021 in compliance to the directions of the Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in connection with O.A.No.51/ 2016 (*Ambarnath Sengupta – Vs – The State of West Bengal & Ors.*), (order dated 06.10.2017), in consultation with the State Pollution Control Board, Odisha. The Rule has been made comprising the Revised Guidelines of Idol immersion (12.5.2020) prepared by CPCB and Hon'ble NGT directions. The Gazette Notification has been circulated among all stakeholders vide letter No. 3369 dated 04.3.2022. for effective implementation and also has been uploaded in Board's website for public awareness and wider circulation. (weblink : <http://ospcboard.org/wp-content/uploads/2021/10/FE-CC-Notification-on-Idol-Immersion-Rule.pdf>).

Like previous years, to minimize the impact of idol immersion on the water quality, the State Pollution Control Board, Odisha has taken following steps during the year 2023, as recommended in the Guideline for idol immersion and Idol immersion Rules.

- Created public awareness through Public Notice on safe Idol immersion practices in Local Newspapers and in Board's website. (Fig.1).
- Informed all the District Collectors and authorities of urban local bodies of the State prior to Ganesh Puja to strictly implement the Guidelines of Immersion in their areas of jurisdiction. (Letter No. 13050 dated 18.8.2023) (Annexure-1).

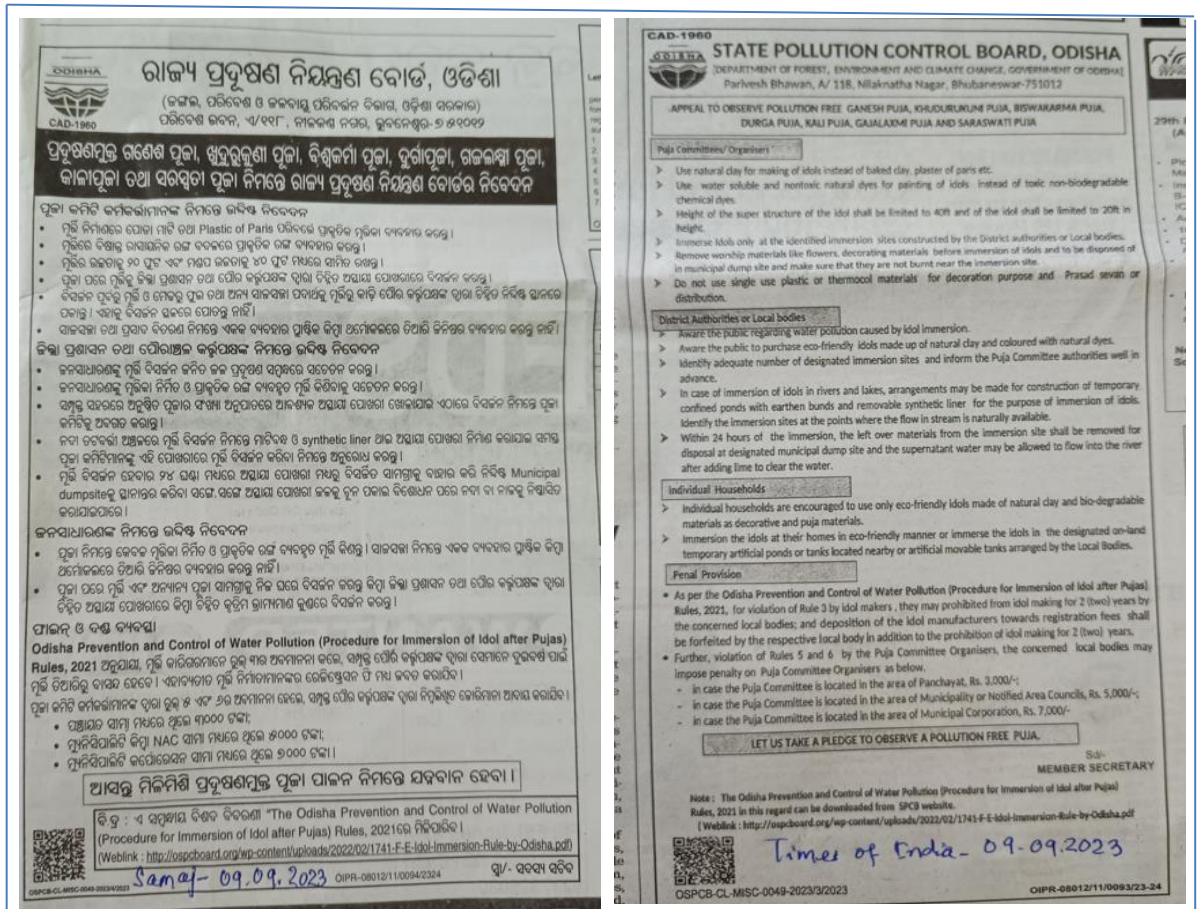


Fig. 1 Appeal to Public to observe pollution free Ganesh puja, Khudurukuni Puja, Durga Puja, Laxmi Puja, Kali Puja and Saraswati Puja through Public Notice on Newspapers

- Made several meetings with the local bodies/ authorities, Puja Committee Organizers to create awareness on ill impacts of Idol immersion in water bodies and distributed leaflets containing public notice among the puja committee organisers and other Puja mandaps.
- Coordinated with the local bodies/ authorities for construction of adequate temporary immersion ponds near rivers as prescribed in the Guideline.
- Conducted water quality assessment of the water bodies during Ganesh Puja in three stages i.e. Pre-immersion, during immersion and post-immersion in three five Municipal Corporation areas such as Bhubaneswar, Cuttack, Sambalpur and in one municipal area, Jatani. The Post-monitoring was conducted after 3rd day, 5th day, 7th day and 9th day of the idol immersion. As during Ganesh Puja, idols are immersed in different days and therefore during-immersion and post immersion monitoring were conducted accordingly. The date of monitoring in different municipal areas has been detailed in Table-1.

Table-1 : Date of pre-, During and Post-immersion monitoring for Ganesh Puja in different municipal areas

Urban Body	Local	Water body	Pre-immersion	During Immersion	Post-immersion
Bhubaneswar Municipal Corporation		Kuakhai River	12.9.2023	25.9.2023	30.9.2023
		Daya River			03.10.2023
Cuttack Municipal Corporation		Kathajodi River	12.9.2023	25.9.2023	27.9.2023
		Mahanadi River			29.9.2023
Sambalpur Municipal Corporation		Mahanadi River	12.9.2023	22.9.2023	01.10.2023
					03.10.2023
Jatani Municipality		Pond	12.9.2023	30.9.2023	24.9.2023
					26.9.2023
					28.0.2023
					30.9.2023
					03.10.2023
					05.10.2023
					07.10.2023
					09.10.2023

4. Actions taken for implementation of the Guideline during immersion of Idols

Awareness activities has created a sensation in public to purchase ecofriendly idols in the State. In the past few years, a demand for ecofriendly idols in the market has been observed. Educational institutes, clubs, community puja pandals, organisations are gradually shifting towards ecofriendly idols. Such idols are crafted from materials like clay, papier mache or natural fibers, for easy biodegradation, and less pollution to water bodies (Fig. 2 and 3).



Fig. 2 Making of Idol from mud using straw as base material



Fig. 3 Making of Ganesh Idol on tree trunk to worship on Ganesh Puja

In all urban local bodies of the State, temporary immersion ponds were constructed on the bank of the rivers by the district administrations in coordination with the municipal authorities, before the day of idol immersion. The ponds were lined with removable synthetic liner at its bottom well in advance of the idol immersion (Fig. 4 and 5, 6). Sign boards were installed at different locations of the ULBs to display route maps to the immersion ponds. Light arrangements were also made to facilitate idol immersion during night times. Location of the idol immersion sites and route map were also informed to the Puja committee authorities and were instructed to immerse the idols only at the designated immersion sites. The said liner along with remains of the idols were removed at most of the places within 24 hours of idol immersion. The left over-materials were collected by the local bodies for disposal in municipal dumpsites. After that bleaching powder was added to disinfect the ponds and water and treated with lime for settling. As other pujas involving idol immersion, such as, Durga Puja, Gaja Laxmi puja, Kali Puja, Kartikeswar Puja were there within fifteen days to one month gap back-to-back, the immersion ponds were left vacant as such for other immersion purposes. Before each immersion process, municipal authorities have taken adequate steps to make ready these ponds by lining the bottom with synthetic liner and filling the pond with water.

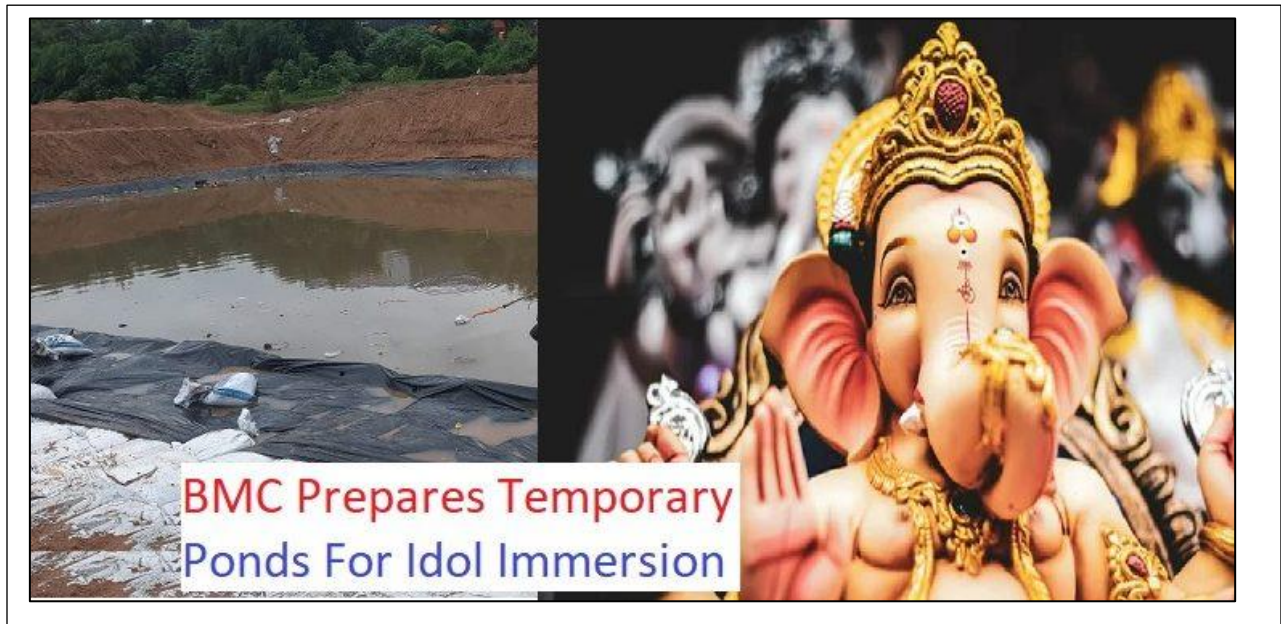


Fig. 4 Construction of Temporary immersion ponds in Bhubaneswar along Daya River



Fig. 5 Construction of Temporary immersion ponds in Cuttack



Fig.6 Construction of temporary immersion ponds on the bank of the Kathajodi river in Cuttack

As per the information received from different urban local bodies in the State and Regional Officers of the Board, details of temporary idol immersion ponds constructed for the purpose, approximate number of idols immersed during the process are given below (Table-2).

Table-2 Information on Temporary Idol Immersion Ponds constructed by ULBs

Name of ULB	Temporary Idol Immersion Pond constructed	Approx. size of ponds	Number of Idols immersed
Balasore Municipality	1 number on the bank of river Budhabalanga at Balighat	21 m x 18 m x 3 m	Not provided
Baripada Municipality	1 number on the bank of river Budhabalanga at Madhuban	65 ft x 65 ft x 12 ft	Not provided
Berhampur Municipal Corporation	1 number near Haridakhandi Main Road	30 ft x 20 ft x 5 ft	60
	1 number near Gosaninuagaon	30 ft x 20 ft x 5 ft	30
	1 number near Meenakshi Nagar Main Road	30 ft x 20 ft x 5 ft	97
Bhadrak Municipality	2 numbers on the bank of river Salandi	Each of size 50 ft x 15 ft x 10 ft	Not provided
Balangir Municipality	1 pond near Tulsinagar , Circuit House Road, Balangir	60 ft x 50 ft x 4 ft	18
Bhubaneswar Municipal Corporation	1 No on the on the bank of river Kuakhai, 2 Nos on the on the bank of river Daya	130 ft x 80 ft x 10 ft 50 ft x 35 ft x 5 ft 50 ft x 20 ft x 5ft	Not provided
Cuttack Municipal Corporation	11 numbers on the bank of river Kathajodi and Mahanadi		Not provided
Jajpur Municipality	1 number on the bank of river Baitarani at Debigarh ghat	23 m x 20 m x 10 m	58 Nos.
Jatani Municipal Council	1 no at Sandhapaur	150 ft x 75 ft x 10 ft	Not provided
Rourkela Municipal Corporation	1 pond on the bank of river Brahmani at Balughat	60 ft x 28 ft x 4.2 ft	108
Sundargarh Municipality	1 pond on the bank of river IB at Mahadevpada Village	60 ft x 60 ft x 10 ft	12
Rajgangpur Municipality	1 number near Liploi Bridge, Ward No. 11, Rajgangpur	85 ft x 50 ft x 8 ft	92

Within 24 hours of completion of idol immersion, the left-overs were removed by the volunteers from Puja Committees alongwith personnels from municipalities and transported to the designated municipal dumpsites of the respective areas for disposal. Excavators were also utilized for removal of idols from the ponds. Immersion of idols in the temporary idol immersion ponds, removal of immersion left-overs from the ponds, transportation to designated dumpsites are shown in Figures 7,8.



(Idol immersion site of Sundargarh Municipality)

Fig.7 Removal of immersed left overs from the ponds to facilitate the immersion of other idols in the temporary immersion ponds



Fig.8 Removal of immersed left overs from the ponds to facilitate the immersion of other idols in the temporary immersion ponds in Berhampur

(b) Actions taken for implementation of the Guideline during immersion of Idols in Ponds

In absence of rivers in the cities, idols were also immersed in the ponds. In some urban local bodies, temporary immersion ponds were constructed for such purpose, Such ponds were also lined with the synthetic liner and filled with water prior to immersion.

In Berhampur Municipal Corporation area, the Self Help Groups did not allow the puja organisers even the households to immerse their Ganesh idols in the ponds. For which, the Municipal authorities created four ponds for immersion purpose which were later used for immersion of idols during other pujas. Such ponds were also constructed in other urban local bodies of the State. In some urban local bodies like Jatani municipality, idols were immersed in the designated corner of the abandoned quarry pond at Sandhapur.

As per the Guideline, the designated corner of the pond was cordoned with removable synthetic liner prior to idol immersion. The said liner along with remains of the idols were removed within 24 hours of idol immersion. The left over-materials were removed by the local bodies for disposal in designated dumpsites.

Copies of the actions taken reports submitted by the urban local bodies and Regional officers of the State Pollution Control Board are enclosed as Annexures-2 to 8.

5. Actions taken by the Puja Committee Organsiers

In Odisha, all idols, in general, are made from natural clay as per religious practice. After constant persuasion of the district administration and municipal authorities, idols were colored with natural and ecofriendly colours instead synthetic colours. Large size idols were made using clay, bamboo, straw and other such materials. Efforts were also made for puja mandap decorations using biodegradable materials, bamboo materials. Prasad bitaran was also done with leaf plates instead of using plastic plates.

As large idols were difficult to take to the temporary idol immersion sites, Puja Committee organisers in Bhubaneswar had taken steps to immerse the idols at the spot by spraying water on them. After that, the skeleton made with bamboo was broken and used for other purposes. The soil so obtained after immersion were recycled and used for

gardening and other purposes To encourage others to follow environment-friendly practices.

All other Puja committee organisers followed the guidelines of concerned Police authority and municipal authorities for immersion in the temporary ponds on the scheduled day of immersion to prohibit the crowding at the immersion site and traffic congestion due to immersion procession. Individual households were also made aware to immerse the idols in such temporary immersion ponds instead of immersing in nearby waterbodies.

Puja Committee Organizers also engaged volunteers to remove the immersion left overs from the pond within 24 hours of completion of immersion process. The waste materials were handed over to the municipal personnel to dispose at municipal dumpsites.

6. Impact of Idol Immersion on water bodies

To assess the Impact of idol immersion on the water quality of rivers, evaluation of water quality status has been carried out in comparison with Class C surface water bodies (IS : 2296 (1982)). Besides these, as per revised guidelines, water quality were also assessed with respect to drinking water specification (IS 10500 (2012)).

To assess the impact of idol immersion during Ganesh Puja on water bodies, the Board had conducted water quality assessment studies of the rivers flowing along three Municipal Corporation areas and one municipal areas as mentioned in Table-1. As per the Revised Guidelines, water quality monitoring was conducted in three stages i.e. pre-immersion, during- immersion and post- immersion period of Ganesh Puja. Date of monitoring in these municipal area are not same as the idol immersion of Lord Ganesh were done in different days. At all locations, temporary idol immersion sites were constructed on the bank of the river. Samples were collected from the upstream of the Idol immersion site, downstream and further downstream of the immersion site and also from the temporary immersion sites as indicated in the Sketch map (Fig. 9).

The water samples were analysed for the physico-chemical parameters as recommended by Central Pollution Control Board (CPCB) for such studies, such as pH, Electrical Conductivity (EC), Turbidity, Dissolved Oxygen (DO), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), chloride, alkalinity, total hardness,

calcium, magnesium and hexavalent chromium, Total Chromium and Mercury. Heavy metals like Nickel, Copper, Lead, Cadmium, Zinc could not be analysed because of non-functioning of Atomic Absorption Spectrometer presently.

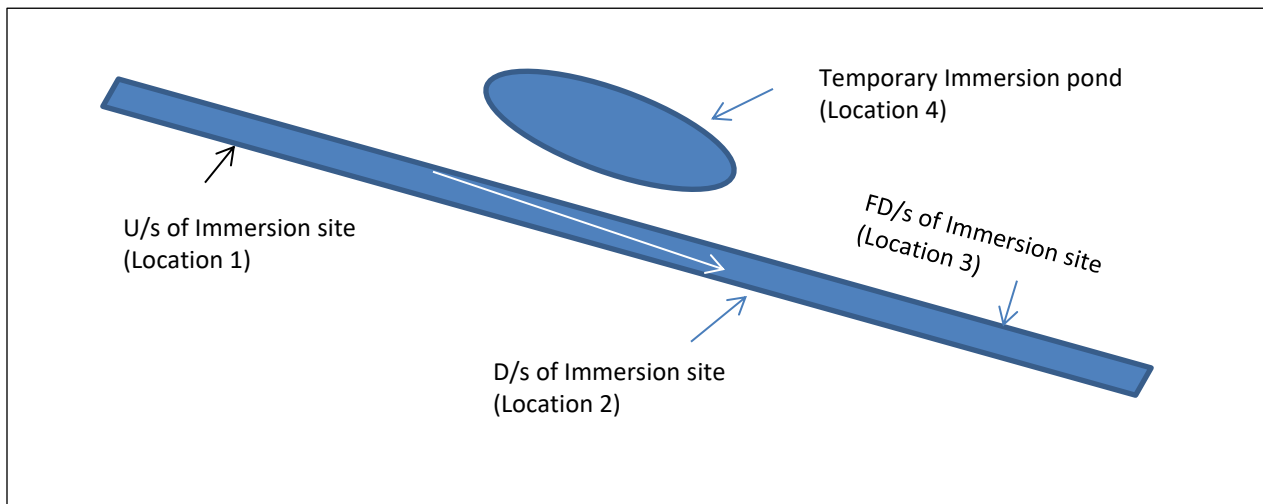


Fig. 9 Sketch map of Idol immersion monitoring stations on River

Water quality results are presented in following pages as mentioned below in Table-3.

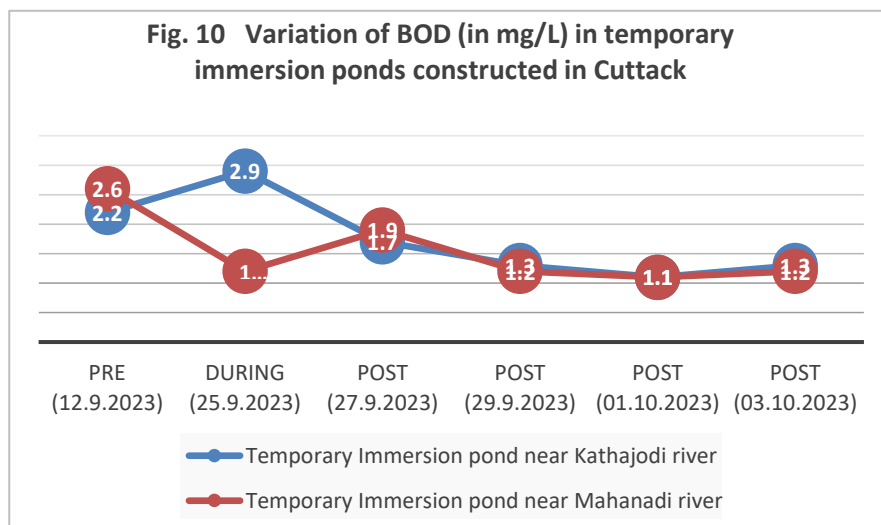
Table-3 Water Quality Assessment conducted during Ganesh Puja

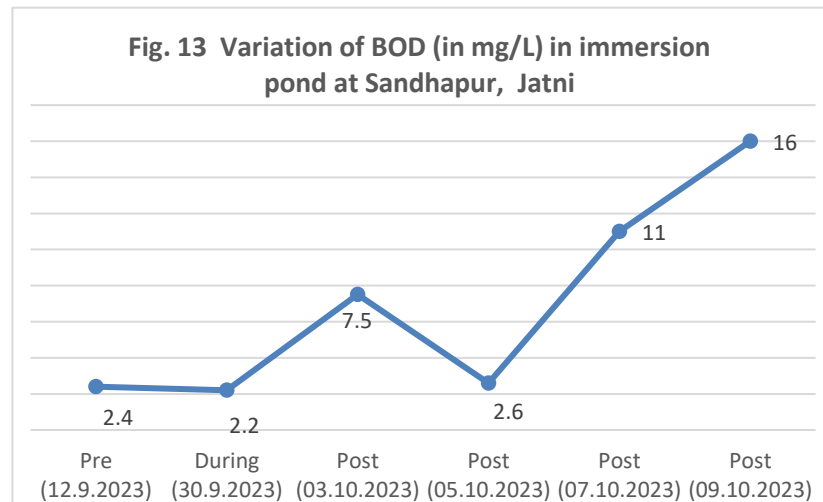
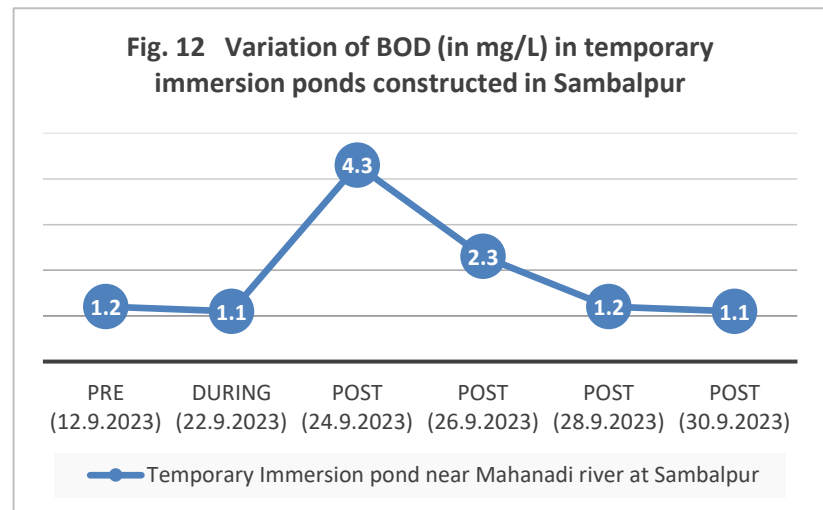
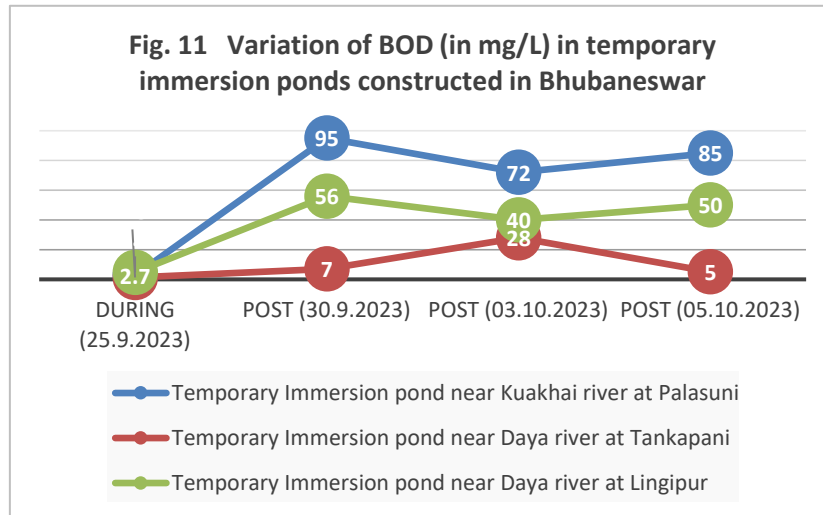
Name of ULB	River	Monitoring location	Water quality status given in Table No.
Cuttack Municipal Corporation	Kathajodi	Devighat	Table-4
	Mahanadi	Kartikeswar gada	Table-5
Bhubaneswar Municipal Corporation	Kuakhai	Palasuni	Table-6
		Tankapani	Table- 7
		Lingipur	Table- 8
Sambalpur Municipal Corporation	Mahanadi	Sambalpur	Table- 9
Jatani Municipality	Ponds	Sandhapur	Table-10

From the water quality data, it has been observed that

- pH of river water during the study period remained well within the tolerance limit of 6.5-8.5.
- Dissolved Oxygen content in the rivers always remained above 4.0 mg/L which conform to Class C river quality.

- There is no significant change in Electrical conductivity in river water quality in Pre-, During and Post-phases of monitoring.
- BOD values of river monitoring stations also remained within the tolerance limit of 3.0 mg/L specified for Class C river throughout the study period.
- Alkalinity, Hardness content, chloride content, remained well within the acceptable limits of drinking water specification.
- Variations in total suspended solid content are mostly due to the occurrence of rain.
- As idols were not directly immersed in river bodies, rather immersed in temporary immersion ponds created on the bank of the rivers and after immersion period also, water from the ponds were not allowed to flow into the rivers, **no impact of idol immersion on the water quality of the rivers has been observed in this study.**
- Variation in BOD values in temporary immersion ponds in different municipal areas are shown in Figures 10-13. As seen in the Figures, where the municipal authorities has taken stringent action to remove the immersion left overs from the temporary immersion pond, the BOD values remained within the tolerance limit of 3.0 mg/L.
- The BOD values in some immersion ponds though have increased during immersion period, but significantly reduced over the days after immersion period because of removal of immersion left overs from the ponds.
- The high values of BOD in post-phase monitoring at some places indicate the lapse in removal of immersion left-overs from the ponds as shown in Fig. 14.





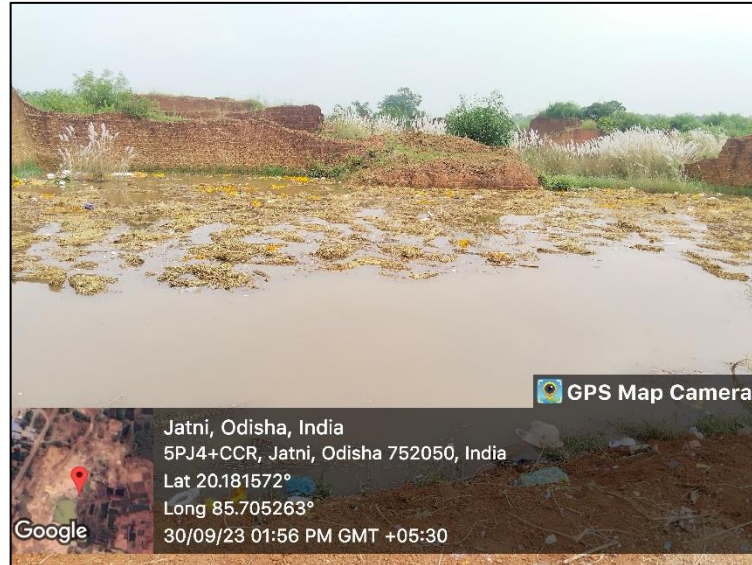


Fig. 14 Immersion left overs in ponds at Jatani

- **To summarize, because of the preventive measures taken by the District administration not to allow the water of idol immersion ponds to flow into the river, water quality of the river at the downstream stations in during-immersion and Post-immersion periods mostly remained well within the tolerance limits of the designated use.**
- From the study, it may be concluded that all the parameters specified for the study remained within the tolerance limit for designated class of the river i.e. Class-C (Drinking water source with conventional treatment followed by disinfection) and meet the drinking water specification with respect to all measured parameters except turbidity. **Immersion of idols in the temporary immersion ponds has minimized the probability of contamination of the main course of river water.**
- Moreover, removal of immersion left overs from the temporary immersion ponds within the prescribed 24 hours is equally important to maintain the aesthetic values of the location, to prevent the over accumulation of the garbage in the area and spread of foul odour in the locality.



Fig. 15 Water quality Monitoring stations on rivers and temporary Immersion ponds

Table- 4 Impact of idol immersion during Ganesh Puja on water quality of Kathajodi river at Cuttack

Date of Monitoring	Location*	pH	EC, $\mu\text{S/cm}$	Colour, Hazen Unit	Turb, NTU	TSS, mg/L	DO, mg/L	BOD, mg/L	COD, mg/L	TDS, mg/L	Cl ⁻ , mg/L	Alk. as CaCO ₃ , mg/L	TH as CaCO ₃ , mg/L	Ca, mg/L	Mg, mg/L	Cr ⁺⁶ , mg/L	T.Cr, mg/L	Hg, mg/L
Pre-Idol immersion (12.9.2023)	Location-1	7.6	220	<10.0	25	27	8.2	2.8	16	140	8	80	76	20.84	5.83	NA	NA	NA
	Location-2	7.5	231	20	26	28	7.8	3.2	20	152	8	84	80	22.44	5.83	NA	NA	NA
	Location-3	7.8	217	20	27	30	9.3	2.6	16	144	6	80	72	20.84	4.86	NA	NA	NA
	Location-4	7.8	228	10	16	25	9	2.2	7.8	144	8	80	76	24.05	3.89	NA	NA	NA
During-Idol immersion (25.9.2023)	Location-1	7.2	201	15	32	47	7.2	2.5	19	120	6	76	72	22.44	3.89	0.013	0.018	0.00031
	Location-2	7.3	210	10	39	50	7.4	1.7	11	128	6	76	80	22.44	5.83	0.01	0.012	0.00046
	Location-3	7.2	207	<10.0	34	35	7.4	1.2	7.6	124	6	76	76	22.44	4.86	<0.002	0.008	0.00031
	Location-4	7.3	218	<10.0	65	94	6.8	2.9	23	132	8	80	80	24.05	4.86	0.009	0.012	0.00185
Post (3 rd) During-Idol immersion (27.9.2023)	Location-1	7.3	187	<10.0	26	48	7	1.4	11	108	6	72	76	24.05	3.89	0.01	0.021	0.00077
	Location-2	7.4	195	10	33	66	7.8	1.2	7.5	120	6	92	80	24.05	4.86	0.008	0.018	0.00077
	Location-3	7.3	188	<10.0	26	35	7.2	1.3	7.5	116	6	88	76	24.05	3.89	0.006	0.015	0.00077
	Location-4	7.5	200	10	38	115	7.4	1.7	15	128	18	80	80	25.65	3.89	0.009	0.019	0.00032
Post (5 th) During-Idol immersion (29.9.2023)	Location-1	6.7	180	<10.0	40	73	7	1.1	7.5	112	6	76	80	24.05	4.86	0.01	0.021	0.00046
	Location-2	7.2	195	<10.0	38	90	6.8	1.2	7.5	120	6	80	76	25.65	2.92	0.009	0.016	0.00092
	Location-3	7.2	188	<10.0	40	78	6.9	1.1	7.5	120	6	76	76	22.44	4.86	0.013	0.024	0.00046
	Location-4	6.3	191	20	33	62	6.9	1.3	7.5	116	6	76	76	24.05	3.89	0.008	0.016	0.00493
Post (7 th) During-Idol immersion (01.10.2023)	Location-1	7.5	207	<10.0	55	91	7.5	1.3	7.5	128	6	92	80	25.65	3.89	0.013	0.024	0.00046
	Location-2	7.8	193	<10.0	32	88	7.6	1.1	7.5	116	8	80	76	22.44	4.86	0.01	0.019	0.00046
	Location-3	7.9	165	<10.0	50	76	7.3	1.2	7.5	108	6	80	76	22.44	4.86	0.013	0.025	0.00031
	Location-4	7.7	198	<10.0	65	110	7.6	1.1	7.5	116	6	84	76	24.05	3.89	0.015	0.027	0.00277
Post (9 th) During-Idol immersion (03.10.2023)	Location-1	7.6	180	<10.0	45	55	8.8	1.2	7.5	108	6	76	72	22.44	3.89	0.012	0.022	0.00046
	Location-2	7.5	185	<10.0	45	73	8.9	1.1	7.5	104	8	68	72	22.44	3.89	0.012	0.022	0.00031
	Location-3	7.7	190	<10.0	40	50	8	1.2	7.5	112	6	84	76	22.44	4.86	0.01	0.018	0.00031
	Location-4	7.8	186	<10.0	34	58	8.1	1.3	7.5	112	6	88	76	20.84	5.83	0.008	0.015	0.00447
Tolerance limits for Class-C inland surface waters (IS : 2296-1982)																		
Tolerance limit	6.5-8.5	--	300	--	--	4.0, min	3.0, max	--	1500	600	--	--	--	--	--	0.05	-	-
Drinking water specification (IS : 10500 : 2012) and amendments thereof																		
Acceptable limit	6.5-8.5	-	5.0	1.0	-	-	-	-	500	250	200	200	75	30	-	0.05	0.001	
Permissible limit	No relax	-	15.0	5.0	-	-	-	-	2000	1000	600	600	200	100	-	No relax	No relax	

* Location-1 : U/s of immersion site (100m up)

Location-2 : D/s of idol Immersion site (20 m down from temporary site)

Location-3 : FD/s of idol immersion site at Khan nagar

Location 4 : Temporary idol immersion site on the bank of the river at Devigada

NA : Not Analysed



Table- 5 Impact of idol immersion during Ganesh Puja on water quality of Mahanadi river at Cuttack

Date of Monitoring	Location*	pH	EC, $\mu\text{S/cm}$	Colour, Hazen Unit	Turb, NTU	TSS, mg/L	DO, mg/L	BOD, mg/L	COD, mg/L	TDS, mg/L	Cl ⁻ , mg/L	Alk. as CaCO ₃ , mg/L	TH as CaCO ₃ , mg/L	Ca, mg/L	Mg, mg/L	Cr ⁺⁶ , mg/L	T.Cr, mg/L	Hg, mg/L
Pre-Idol immersion (12.9.2023)	Location-1	7.6	219	15	40	55	7.2	2.6	20	128	6	76	76	19.24	6.80	NA	NA	NA
	Location-2	7.7	198	20	30	27	7.4	2.8	20	124	6	76	72	22.44	3.89	NA	NA	NA
	Location-3	7.8	207	20	45	49	7.4	2.2	7.8	132	6	88	72	20.84	4.86	NA	NA	NA
	Location-4	7.7	218	25	38	35	7.6	2.6	12	132	6	76	76	22.44	4.86	NA	NA	NA
During-Idol immersion (25.9.2023)	Location-1	7.1	188	<10.0	33	24	6.8	1.3	7.6	112	6	72	88	25.65	5.83	0.012	0.015	0.00031
	Location-2	7.3	202	10	35	45	7.6	1.4	7.6	124	10	76	108	24.05	11.66	0.009	0.012	0.00046
	Location-3	7.1	175	10	37	46	7.4	1.4	7.6	104	6	72	108	24.05	11.66	0.012	0.015	0.00062
	Location-4	7.2	210	15	39	52	7	1.2	7.6	132	6	88	116	25.65	12.64	0.018	0.021	0.002
Post (3 rd) During-Idol immersion (27.9.2023)	Location-1	7.1	192	<10.0	31	104	6.8	1.2	7.5	120	6	80	76	27.25	1.94	0.005	0.013	0.00062
	Location-2	7.3	195	<10.0	27	49	7.2	1.3	7.5	120	6	84	80	24.05	4.86	0.005	0.012	0.00077
	Location-3	7.2	191	<10.0	8.2	93	7.7	1.2	7.5	116	6	80	80	24.05	4.86	0.006	0.013	0.00062
	Location-4	7.4	197	10	30	129	7.1	1.9	19	124	12	76	80	22.44	5.83	0.009	0.019	0.00077
Post (5 th) During-Idol immersion (29.9.2023)	Location-1	7.1	193	<10.0	18	112	6.6	1.4	7.5	116	6	68	76	24.05	3.89	0.012	0.022	0.00046
	Location-2	7.2	190	<10.0	29	111	6.3	1.2	7.5	116	6	80	84	24.05	5.83	0.015	0.027	0.00077
	Location-3	7.1	188	<10.0	35	66	6.5	1.1	7.5	112	6	80	76	22.44	4.86	0.012	0.022	0.00046
	Location-4	6.8	196	15	30	52	7.3	1.2	7.5	116	6	76	76	22.44	4.86	0.01	0.018	0.00308
Post (7 th) During-Idol immersion (01.10.2023)	Location-1	7.8	190	<10.0	13	83	7.7	1.2	7.5	112	6	80	76	22.44	4.86	0.008	0.016	0.00031
	Location-2	7.6	192	<10.0	60	88	7.5	1.2	7.5	112	6	84	80	22.44	5.83	0.015	0.028	0.00031
	Location-3	7.3	175	<10.0	60	87	7.7	1.3	7.5	108	8	80	80	20.84	6.80	0.013	0.025	0.00031
	Location-4	7.8	185	<10.0	37	83	7.6	1.1	7.5	108	6	80	76	24.05	3.89	0.01	0.018	0.00385
Post (9 th) During-Idol immersion (03.10.2023)	Location-1	7.7	190	<10.0	37	66	7	1.6	11	108	6	76	76	20.84	5.83	0.01	0.021	0.00031
	Location-2	7.8	195	12	100	345	6.6	1.8	15	112	6	68	84	20.84	7.78	0.015	0.027	0.00031
	Location-3	7.6	183	12	90	352	7	2.4	19	108	6	72	80	22.44	5.83	0.012	0.022	0.00031
	Location-4	8.1	181	10	36	55	7.4	1.2	7.5	108	8	84	76	24.05	3.89	0.006	0.012	0.00416
Tolerance limits for Class-C inland surface waters (IS : 2296-1982)																		
Tolerance limit	6.5-8.5	--	300	--	--	4.0, min	3.0, max	--	1500	600	--	--	--	--	--	0.05	-	-
Drinking water specification (IS : 10500 : 2012) and amendments thereof																		
Acceptable limit	6.5-8.5	-	5.0	1.0	-	-	-	-	500	250	200	200	75	30	-	0.05	0.001	
Permissible limit	No relax	-	15.0	5.0	-	-	-	-	2000	1000	600	600	200	100	-	No relax	No relax	

* Location-1 : U/s of immersion site (100m up)

Location-2 : D/s of idol Immersion site (20 m down from temporary site)

NA : Not Analysed

Location-3 : FD/s of idol immersion site near Kartikeswargada

Location 4 : Temporary idol immersion site on the bank of the river at Kartikeswar gada



Table- 6 Impact of idol immersion during Ganesh Puja on water quality of Kuakhai River at Bhubaneswar (Near Palasuni)

Date of Monitoring	Location*	pH	EC, $\mu\text{S/cm}$	Colour, Hazen Unit	Turb, NTU	TSS, mg/L	DO, mg/L	BOD, mg/L	COD, mg/L	TDS, mg/L	Cl ⁻ , mg/L	Alk. as CaCO ₃ , mg/L	TH as CaCO ₃ , mg/L	Ca, mg/L	Mg, mg/L	Cr ⁺⁶ , mg/L	T.Cr, mg/L	Hg, mg/L	
Pre-Idol immersion (12.9.2023)	Location-1	6.8	245	15	13	43	5.7	2.4	16	144	16	52	68	19.24	4.86	NA	NA	NA	
	Location-2	7.1	250	<10.0	12	66	6.6	2.8	20	152	12	76	76	22.44	4.86	NA	NA	NA	
	Location-3	6.9	440	15	7.8	60	6.5	2.4	16	276	12	72	92	25.65	6.80	NA	NA	NA	
	Location-4	Not Monitored																	
During-Idol immersion (25.9.2023)	Location-1	6.9	200	10	50	74	6.8	1.2	7.6	124	6	76	72	24.05	2.92	0.003	0.008	0.00015	
	Location-2	7.3	215	10	55	76	7	1.2	7.6	132	6	76	80	22.44	5.83	0.016	0.021	0.00031	
	Location-3	7.4	287	15	45	34	6.2	1.3	7.6	176	18	76	72	20.84	4.86	0.013	0.018	0.00031	
	Location-4	7.3	388	20	95	145	5.1	2.7	15	240	16	88	88	28.86	3.89	0.01	0.018	0.00139	
Post (3 rd) During-Idol immersion (27.9.2023)	Location-1	Not Monitored																	
	Location-2	Not Monitored																	
	Location-3	Not Monitored																	
	Location-4	Not Monitored																	
Post (5 th) During-Idol immersion (30.9.2023)	Location-1	6.7	191	<10.0	26	30	6.3	1.4	7.5	108	8	76	72	22.44	3.89	0.005	0.012	0.00031	
	Location-2	6.8	260	<10.0	19	30	6	1.3	7.5	152	22	80	84	24.05	5.83	0.009	0.018	0.00046	
	Location-3	6.8	221	<10.0	13	22	8.1	1.4	7.5	132	8	72	80	25.65	3.89	0.009	0.018	0.00046	
	Location-4	6.5	1038	50	60	190	<0.3	95	168	652	22	372	400	105.81	33.05	0.013	0.024	0.0037	
Post (7 th) During-Idol immersion (03.10.2023)	Location-1	8.0	184	<10.0	45	49	7.5	1.8	15	108	6	80	72	20.84	4.86	0.009	0.018	0.00046	
	Location-2	7.8	190	<10.0	55	88	6.6	1.4	7.5	112	6	80	80	20.84	6.80	0.013	0.022	0.00046	
	Location-3	7.7	188	<10.0	65	97	7.1	2.1	15	112	6	76	76	20.84	5.83	0.013	0.022	0.00031	
	Location-4	7.1	478	10	100	13	1.1	72	112	300	14	136	220	57.72	18.47	0.015	0.027	0.00431	
Post (9 th) During-Idol immersion (05.10.2023)	Location-1	7.3	170	<10.0	6.1	46	7.3	1.2	7.4	100	6	76	64	19.24	3.89	<0.002	0.008	0.00046	
	Location-2	7.2	220	<10.0	5.3	30	6.8	1.3	7.4	132	20	76	72	20.84	4.86	0.006	0.015	0.00062	
	Location-3	7.2	180	<10.0	5	23	7.1	1.1	7.4	100	8	76	68	22.44	2.92	<0.002	0.009	0.00046	
	Location-4	6.9	700	40	13	1568	<0.3	85	148	432	30	248	400	104.21	34.02	<0.002	0.008	0.00462	
Tolerance limits for Class-C inland surface waters (IS : 2296-1982)																			
Tolerance limit	6.5-8.5	--	300	--	--	4.0, min	3.0, max	--	1500	600	--	--	--	--	--	0.05	-	-	
Drinking water specification (IS : 10500 : 2012) and amendments thereof																			
Acceptable limit	6.5-8.5	-	5.0	1.0	-	-	-	-	500	250	200	200	75	30	-	0.05	0.001		
Permissible limit	No relax	-	15.0	5.0	-	-	-	-	2000	1000	600	600	200	100	-	No relax	No relax		

* Location-1 : U/s of immersion site (100m up)

Location-2 : D/s of idol Immersion site (20 m down from temporary site)

NA : Not Analysed

Location-3 : FD/s of idol immersion site near Palasuni Location 4 : Temporary idol immersion site on the bank of the river at Pala



Table- 7 Impact of idol immersion during Ganesh Puja on water quality of Daya River at Bhubaneswar (Near Tankapani)

Date of Monitoring	Location*	pH	EC, $\mu\text{S/cm}$	Colour, Hazen Unit	Turb, NTU	TSS, mg/L	DO, mg/L	BOD, mg/L	COD, mg/L	TDS, mg/L	Cl ⁻ , mg/L	Alk. as CaCO ₃ , mg/L	TH as CaCO ₃ , mg/L	Ca, mg/L	Mg, mg/L	Cr ⁺⁶ , mg/L	T.Cr, mg/L	Hg, mg/L	
Pre-Idol immersion (12.9.2023)	Location-1	7.2	230	20	6.9	30	5.9	2.2	12	132	10	68	68	20.84	3.89	NA	NA	NA	
	Location-2	7.4	182	15	15	58	7.3	2.8	20	108	6	60	56	16.03	3.89	NA	NA	NA	
	Location-3	7.6	181	15	12	61	6.9	2.6	12	116	8	52	56	16.03	3.89	NA	NA	NA	
	Location-4	Not Monitored																	
During-Idol immersion (25.9.2023)	Location-1	7.5	196	15	27	25	6.2	1.4	7.6	116	6	68	72	20.84	4.86	0.008	0.013	0.00031	
	Location-2	7.6	203	10	35	45	6.4	1.2	7.6	128	6	76	76	22.44	4.86	0.006	0.012	0.00092	
	Location-3	7.6	205	20	45	36	6.6	1.2	7.6	128	6	76	72	22.44	3.89	0.008	0.012	0.00062	
	Location-4	7.7	220	20	45	52	7.9	1.3	7.6	132	6	76	88	22.44	7.78	0.009	0.013	0.00123	
Post (3 rd) During-Idol immersion (27.9.2023)	Location-1	Not Monitored																	
	Location-2																		
	Location-3																		
	Location-4																		
Post (5 th) During-Idol immersion (30.9.2023)	Location-1	7.1	185	<10.0	6.3	12	5.9	1.4	7.5	108	8	88	72	20.84	4.86	<0.002	0.006	0.00031	
	Location-2	7.1	200	<10.0	12	13	6.4	1.2	7.5	116	8	80	84	22.44	6.80	0.005	0.01	0.00092	
	Location-3	7.3	203	<10.0	9.6	20	6.7	1.1	7.5	112	8	92	84	25.65	4.86	<0.002	0.006	0.00062	
	Location-4	7.1	281	16	7.3	35	3.9	7	37	176	12	112	112	33.67	6.80	<0.002	0.006	0.00339	
Post (7 th) During-Idol immersion (03.10.2023)	Location-1	7.4	253	<10.0	37	37	7.1	1.9	19	160	6	64	80	22.44	5.83	0.008	0.018	0.00046	
	Location-2	7.6	197	<10.0	40	51	7.5	3.3	30	118	6	76	76	20.84	5.83	0.009	0.018	0.00062	
	Location-3	7.6	192	<10.0	48	36	8.4	1.3	7.5	112	6	76	80	20.84	6.80	0.006	0.015	0.00046	
	Location-4	7.4	305	10	75	341	4.4	28	75	192	14	116	140	38.48	10.69	0.012	0.022	0.00385	
Post (9 th) During-Idol immersion (05.10.2023)	Location-1	7.2	203	<10.0	5.8	83	7.1	1.1	7.4	128	6	80	68	24.05	1.94	0.008	0.019	0.00046	
	Location-2	7.2	175	<10.0	8.2	42	7.2	1.1	7.4	100	6	80	68	22.44	2.92	0.009	0.021	0.00062	
	Location-3	7.3	182	<10.0	4.5	25	7	1.2	7.4	112	6	76	80	20.84	6.80	0.006	0.016	0.00031	
	Location-4	7.1	360	40	2.2	28	3.1	5	44	220	12	148	164	46.49	11.66	<0.002	0.008	0.00462	
Tolerance limits for Class-C inland surface waters (IS : 2296-1982)																			
Tolerance limit	6.5-8.5	--	300	--	--	4.0, min	3.0, max	--	1500	600	--	--	--	--	--	0.05	-	-	
Drinking water specification (IS : 10500 : 2012) and amendments thereof																			
Acceptable limit	6.5-8.5	-	5.0	1.0	-	-	-	-	500	250	200	200	75	30	-	0.05	0.001		
Permissible limit	No relax	-	15.0	5.0	-	-	-	-	2000	1000	600	600	200	100	-	No relax	No relax		

* Location-1 : U/s of immersion site (100m up) Location-2 : D/s of idol Immersion site (20 m down from temporary site) NA : Not Analysed
 Location-3 : FD/s of idol immersion site near Tankapani Location 4 : Temporary idol immersion site on the bank of the river at Tankapani



Table- 8 Impact of idol immersion during Ganesh Puja on water quality of Daya River at Bhubaneswar (Near Lingipur)

Date of Monitoring	Location*	pH	EC, $\mu\text{S/cm}$	Colour, Hazen Unit	Turb, NTU	TSS, mg/L	DO, mg/L	BOD, mg/L	COD, mg/L	TDS, mg/L	Cl ⁻ , mg/L	Alk. as CaCO ₃ , mg/L	TH as CaCO ₃ , mg/L	Ca, mg/L	Mg, mg/L	Cr ⁺⁶ , mg/L	T.Cr, mg/L	Hg, mg/L	
Pre-Idol immersion (12.9.2023)	Location-1	7.7	178	<10.0	7.8	43	7.6	2.6	16	108	8	60	56	16.03	3.89	NA	NA	NA	
	Location-2	7.6	165	15	5.2	17	9.1	2.8	16	112	8	56	60	16.03	3.89	NA	NA	NA	
	Location-3	7.7	176	15	8	13	9.4	2.8	16	120	6	60	52	16.03	2.92	NA	NA	NA	
	Location-4	Not Monitored																	
During-Idol immersion (25.9.2023)	Location-1	7.7	180	10	35	62	6.4	1.2	7.6	108	8	76	80	20.84	6.80	0.012	0.018	0.00031	
	Location-2	7.8	197	10	50	76	7.1	1.3	7.6	124	6	76	80	24.05	4.86	0.013	0.018	0.00062	
	Location-3	7.8	188	<10.0	45	50	7.1	1.8	11	116	6	80	80	22.44	5.83	0.01	0.013	0.00046	
	Location-4	6.9	510	50	120	189	3.7	4.7	34	316	30	128	164	43.29	13.61	0.006	0.01	0.00123	
Post (3 rd) During-Idol immersion (27.9.2023)	Location-1	Not Monitored																	
	Location-2	Not Monitored																	
	Location-3	Not Monitored																	
	Location-4	Not Monitored																	
Post (5 th) During-Idol immersion (30.9.2023)	Location-1	7.3	205	<10.0	13	34	6.9	1.3	7.5	124	6	80	76	24.05	3.89	0.006	0.013	0.00031	
	Location-2	7.6	200	<10.0	29	52	7	1.1	7.5	116	8	96	88	22.44	4.86	0.008	0.018	0.00092	
	Location-3	7.6	198	<10.0	8.1	27	6.9	1.2	7.5	112	10	84	76	22.44	4.86	0.005	0.012	0.00046	
	Location-4	7.2	660	42	23	72	1.8	56	112	420	32	204	300	83.37	22.36	0.005	0.012	0.00185	
Post (7 th) During-Idol immersion (03.10.2023)	Location-1	7.8	212	<10.0	45	61	7.7	1.8	11	136	6	76	80	24.05	4.86	0.008	0.015	0.00046	
	Location-2	7.8	190	<10.0	50	72	7.6	1.9	15	118	6	88	72	22.44	3.89	0.009	0.018	0.00046	
	Location-3	7.9	194	<10.0	45	71	5.9	1.9	15	118	8	84	80	20.84	6.80	0.01	0.019	0.00031	
	Location-4	7.3	755	52	15	12	<0.3	40	93	468	34	224	280	67.33	27.22	<0.002	0.008	0.00493	
Post (9 th) During-Idol immersion (05.10.2023)	Location-1	7.2	207	<10.0	3.4	25	6.5	1.2	7.4	128	8	76	76	22.44	4.86	0.006	0.015	0.00031	
	Location-2	7.2	188	<10.0	7.8	40	7.3	1.5	11	112	8	76	68	22.44	2.92	0.008	0.019	0.00046	
	Location-3	7.3	184	<10.0	6.8	41	7.7	1.2	7.4	112	6	76	68	20.84	3.89	0.0012	0.022	0.00031	
	Location-4	7.1	990	10	4	69	<0.3	50	110	620	40	300	440	120.24	34.02	0.009	0.018	0.00431	
Tolerance limits for Class-C inland surface waters (IS : 2296-1982)																			
Tolerance limit	6.5-8.5	--	300	--	--	4.0, min	3.0, max	--	1500	600	--	--	--	--	--	0.05	-	-	
Drinking water specification (IS : 10500 : 2012) and amendments thereof																			
Acceptable limit	6.5-8.5	-	5.0	1.0	-	-	-	-	500	250	200	200	75	30	-	0.05	0.001		
Permissible limit	No relax	-	15.0	5.0	-	-	-	-	2000	1000	600	600	200	100	-	No relax	No relax		

* Location-1 : U/s of immersion site (100m up)

Location-2 : D/s of idol Immersion site (20 m down from temporary site)

NA : Not Analysed

Location-3 : FD/s of idol immersion site near Lingipur Location 4 : Temporary idol immersion site on the bank of the river at Lingipur



Table- 9 Impact of idol immersion during Ganesh Puja on water quality of Mahanadi River at Sambalpur

Date of Monitoring	Location*	pH	EC, $\mu\text{S/cm}$	Colour, Hazen Unit	Turb, NTU	TSS, mg/L	DO, mg/L	BOD, mg/L	COD, mg/L	TDS, mg/L	Cl ⁻ , mg/L	Alk. as CaCO ₃ , mg/L	TH as CaCO ₃ , mg/L	Ca, mg/L	Mg, mg/L	Cr ⁺⁶ , mg/L	T.Cr, mg/L	Hg, mg/L
Pre-Idol immersion (12.9.2023)	Location-1	7.4	206	<10.0	24	23	7.2	1.5	11	124	6	76	80	22.44	5.83	0.012	0.018	0.00031
	Location-2	7.6	220	<10.0	20	34	7.2	1.2	7.6	140	6	76	80	25.65	3.89	0.008	0.018	0.00077
	Location-3	7.1	303	<10.0	1.9	<10.0	7.4	1.3	7.6	184	8	84	80	25.65	3.89	0.013	0.024	0.00046
	Location-4	7.4	221	<10.0	15	20	1.4	1.2	7.6	136	18	104	100	28.86	6.80	0.01	0.021	0.00031
During-Idol immersion (22.9.2023)	Location-1	7.5	210	<10.0	12	21	7.2	1.2	7.6	128	6	88	84	22.44	6.80	0.006	0.013	0.00031
	Location-2	7.3	238	10	13	18	7.4	1.2	7.6	140	6	80	96	22.44	9.72	0.015	0.027	0.00062
	Location-3	7.6	226	<10.0	7.9	24	7.2	1.3	7.6	140	6	80	84	24.05	5.83	0.013	0.022	0.00031
	Location-4	7.2	240	15	22	36	1.8	1.1	7.6	148	10	100	100	28.86	6.80	0.009	0.018	0.00123
Post (3 rd) During-Idol immersion (24.9.2023)	Location-1	7.6	222	<10.0	15	13	7.4	1.4	7.6	132	6	84	84	22.44	6.80	0.006	0.013	0.00031
	Location-2	7.5	237	<10.0	17	21	7.2	1.4	7.6	144	6	76	80	24.05	4.86	0.01	0.021	0.00062
	Location-3	7.7	220	<10.0	23	18	7.2	1.2	7.6	140	6	80	80	24.05	4.86	0.015	0.027	0.00031
	Location-4	7.2	308	15	12	38	1.8	4.3	31	184	18	100	112	27.25	10.69	0.009	0.018	0.00092
Post (5 th) During-Idol immersion (26.9.2023)	Location-1	7.3	194	<10.0	21	10	7.4	1.2	7.5	120	6	64	76	19.24	6.80	0.006	0.012	0.00046
	Location-2	7.2	272	<10.0	1.2	<10.0	7.4	1.1	7.5	128	60	144	104	28.86	7.78	<0.002	0.006	0.00046
	Location-3	7.7	201	10	16	10	7.4	1.2	7.5	124	6	80	80	22.44	5.83	0.006	0.012	0.00062
	Location-4	7.3	1002	<10.0	3.8	10	4.6	2.3	15	624	18	100	188	38.48	22.36	<0.002	0.006	0.00493
Post (7 th) During-Idol immersion (28.9.2023)	Location-1	7.6	193	<10.0	21	25	7.2	1.2	7.5	112	6	68	76	20.84	5.83	0.008	0.018	0.00046
	Location-2	7.7	205	<10.0	22	21	7.4	1.3	7.5	120	8	68	76	20.84	5.83	0.01	0.019	0.00046
	Location-3	7.7	198	<10.0	20	20	7.2	1.2	7.5	116	6	68	80	25.65	3.89	0.01	0.019	0.00062
	Location-4	7.6	291	15	13	14	4.8	1.2	7.5	172	14	112	108	33.67	5.83	0.009	0.018	0.00477
Post (9 th) During-Idol immersion (30.9.2023)	Location-1	7.8	201	<10.0	12	12	7	2	19	128	6	64	72	24.05	2.92	0.008	0.018	0.00046
	Location-2	7.9	199	<10.0	13	13	7.2	1.4	7.5	112	6	72	76	24.05	3.89	0.006	0.012	0.00062
	Location-3	7.8	173	<10.0	16	18	7.2	1.2	7.5	100	6	72	76	24.05	3.89	0.008	0.019	0.00046
	Location-4	7.8	270	<10.0	7.3	11	5.4	1.1	7.5	168	16	88	100	28.86	6.80	<0.002	0.008	0.00508
Tolerance limits for Class-C inland surface waters (IS : 2296-1982)																		
Tolerance limit	6.5-8.5	--	300	--	--	4.0, min	3.0, max	--	1500	600	--	--	--	--	--	0.05	-	-
Drinking water specification (IS : 10500 : 2012) and amendments thereof																		
Acceptable limit	6.5-8.5	-	5.0	1.0	-	-	-	-	500	250	200	200	75	30	-	0.05	0.001	
Permissible limit	No relax	-	15.0	5.0	-	-	-	-	2000	1000	600	600	200	100	-	No relax	No relax	

* Location-1 : U/s of immersion site (100m up)

Location-2 : D/s of idol Immersion site (20 m down from temporary site)

NA : Not Analysed

Location-3 : FD/s of idol immersion site near Durgapalli

Location 4 : Temporary idol immersion site on the bank of the river at Durgapalli

Table- 10 Impact of idol immersion during Ganesh Puja on water quality of Idol Immersion pond in Jatani (Near Sandhapur)

Date of Monitoring	pH	EC, $\mu\text{S/cm}$	Colour, Hazen Unit	Turb, NTU	TSS, mg/L	DO, mg/L	BOD, mg/L	COD, mg/L	TDS, mg/L	Cl ⁻ , mg/L	Alk. as CaCO ₃ , mg/L	TH as CaCO ₃ , mg/L	Ca, mg/L	Mg, mg/L	Cr ⁺⁶ , mg/L	T.Cr, mg/L	Hg, mg/L
Pre-Idol immersion (12.9.2023)	7.4	140	10	8.5	<10.0	9.7	2.4	12	84	20	16	16	4.81	0.97	NA	NA	NA
During-Idol immersion (30.9.2023)	6.5	220	12	75	91	4.1	2.2	15	136	32	36	28	8.02	1.94	0.015	0.027	0.00185
Post (3 rd) During-Idol immersion (03.10.2023)	7.3	220	18	9.2	13	2.8	7.5	37	124	22	56	52	11.22	5.83	< 0.002	0.008	0.00539
Post (5 th) During-Idol immersion (05.10.2023)	7.3	268	15	2	12	3.4	2.6	22	156	22	32	40	9.62	3.89	0.004	0.01	0.00493
Post (7 th) During-Idol immersion (07.10.2023)	6.9	672	10	4.5	<10.0	0.7	11	55	416	22	40	44	17.64	5.83	0.018	0.033	0.00447
Post (9 th) During-Idol immersion (09.10.2023)	7.1	584	10	27	41	0.5	16	60	364	20	36	36	14.43	6.80	0.027	0.046	0.004
Tolerance limits for Class-C inland surface waters (IS : 2296-1982)																	
Tolerance limit	6.5-8.5	--	300	--	--	4.0, min	3.0, max	--	1500	600	--	--	--	--	0.05	-	-
Drinking water specification (IS : 10500 : 2012) and amendments thereof																	
Acceptable limit	6.5-8.5	-	5.0	1.0	-	-	-	-	500	250	200	200	75	30	-	0.05	0.001
Permissible limit	No relax	-	15.0	5.0	-	-	-	-	2000	1000	600	600	200	100	-	No relax	No relax

7. Recommendations

- As the “**Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules, 2021**” is effective for whole of the State, the District Administration/ authorities of ULBs should take necessary action for effective implementation of the Rule during all pujas involving immersion of idols.
- The height of the super structure of the idols shall be limited to 40 ft and of the idols shall be limited to 20ft in height ;
- District Administration/ authorities of ULBs may take awareness programme for the idol makers to register themselves with a declaration to make ecofriendly idols.
- District Administration should promote the idol makers/ idol manufactures for making ecofriendly idols.
- District Administration should identify the units manufacturing natural colours and make a coordination between the natural colour manufacturers and idol makers.
- As there will be massive need of natural colours to paint the idols and huge shift in the business of the small idol makers, the State Government should provide incentives to these natural colour manufacturers and idol makers, so that they can change their mind set and opt for painting the idols with natural colours,
- Puja Committee Organisers should use the idols made from natural clay only and colouring of the idols with natural colours.
- As Pujas like Ganesh Puja, Saraswati Puja, Biswakarma Puja, Khudurukuni Puja are mostly observed in individual scale, promotion of idols made of natural clay and coloured with natural colours play a vital role in controlling of pollution. School children, young mass may be given major thrust for the awareness programs on ill impacts of idol immersion.
- Use of thermocol, single-use plastic materials for decoration purpose, Prasad distribution/ sevans purposes should be prohibited as use of single-use plastic have already been banned in the country.
- Adequate number and size of ponds shall be constructed by the local administration for idol immersion purpose and shall be informed to the Puja Committee Organisers with route map.
- Public and individual house holders, resident welfare associations may be encouraged to immerse their idols in these earmarked ponds.



- Resident welfare associations may construct temporary idol immersion ponds in their premises for such purpose. Immersion left overs from the ponds may be recovered from the ponds and handed over to the municipal authorities for proper disposal. Water of the ponds may be used for gardening purpose.
- Awareness may be created among the individual house holders to immerse the idols and puja left overs in a bucket full of water and later the water may be used for gardening. Or else they may immerse their idols in the designated temporary immersion ponds created for the purpose.
- Municipal authorities shall cooperate the Puja Committee Organisers for removal of the left-over materials of the idol immersions from the immersion sites within 24 hours of immersion and transportation of these debris to the dumpsites.
- Treatment of temporary immersion pond water with lime and discharge of the settled water to main river channel.
- Burning of left-over materials of idol immersion on the banks of river should be prohibited.
- After discharge of water from the temporary immersion ponds, the empty space should be filled with sand.
- Public awareness shall be given more thrust on the ill-impacts of idol immersion and implementation of the Guidelines.
- Public awareness should be created to limit the size of idols and number of idols in a locality in order to decrease the waste load in the form of puja left-overs.



ANNEXURES



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E-mail : paribesh1@ospboard.org
Website : www.ospcbboard.org

STATE POLLUTION CONTROL BOARD, ODISHA
[DEPARTMENT OF FOREST, ENVIRONMENT AND CLIMATE CHANGE, GOVERNMENT OF ODISHA]
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,
Bhubaneswar – 751 012

No. 13050

VI-SC(LEM)Proj.64 (Vol-III) /23-24

Dt. 18.08.2023

To

All Collectors and District Magistrates
Odisha

Sub : Implementation of the **Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules, 2021**

Sir,

In inviting a reference to above cited letter, this is to inform that Central Pollution Control Board (CPCB) has directed to implement the "Revised Guidelines for Immersion of Idols- May 12, 2020" with effect from 01.01.2021. The guideline posted in Board's website may be downloaded using the weblink http://ospboard.org/wp-content/uploads/2020/06/295_1589273986_mediaphoto24365.pdf for kind information. In the meantime, the State Government also has implemented the "Odisha Prevention and Control of Water Pollution (Procedure for immersion of idols after Pujas) Rules, 2021" vide No. 17937/FE dated 14.10.2021 which has also been uploaded in the Board's website (<http://ospboard.org/wp-content/uploads/2021/10/FE-CC-Notification-on-Idol-Immersion-Rule.pdf>) and communicated to all for information. The Rules came into force from the date of publication in the Gazette Notification.

As the celebration of pujas like Ganesh Puja, Biswakarma Puja, Khudurukuni Puja, Durga Puja, Kali Puja, Gajalaxmi Puja and Saraswati Puja in which idol immersion is a part of activity, are going to start from the month of September in this year, it is requested to take proactive actions for effective implementation of the said Rule. Some of the major proactive action points are listed below .

- (1) Empaneling the Idol makers , Puja mandaps/Organizers
- (2) Ensuring the use of natural clay and biodegradable materials for manufacture of idols
- (3) Ensuring the use of natural dyes/ colours and biodegradable materials for decoration of idols.
- (4) No use of Plaster of Paris (POP), plastic and thermocol (polystyrene) in idol making no use of toxic and non-biodegradable chemical dyes, oil paints and synthetic dye based paints for and painting of the idols
- (5) As far as possible low height idols shall be used and the height of the super structure of the idol shall be limited to 40ft and the idol also shall be limited to 20 feet in height ;
- (6) Ban of Single use Plastic items at the place of worship.
- (7) Creation of temporary immersion/ artificial ponds in close proximity of a locality / residential areas for immersion of idols or on the bank of rivers.

Contd.. p/2



OSPCB-CL-MISC-0049-2023/1/2023



-2-

- (8) Safety measures to be taken at the banks of the rivers during immersion of idols as detailed in the guidelines.
- (9) Removal of bisarjan leftovers from the ponds/waterbodies within 24 hours of immersion and dumping them in identified municipal solid waste dumpsites.
- (10) Encourage individual households (for small idols) to immerse idols in a bucket of water. Otherwise, they can immerse in the identified temporary immersion ponds.
- (11) To consider the option for arrangement of movable artificial tanks to reach residential welfare societies where people can do idol immersion without crowding at the temporary immersion ponds.
- (12) To create awareness among the public/Educational institutes (for Ganesh Puja and Saraswati Puja / industrial units (for Viswakarma Puja) through daily newspaper/ electronic media/ sky advertisement balloons/ NGOs/ Puja Committees regarding use of eco-friendly idols during the pujas involving idol immersion and the penal provision mentioned in the Rule.

Action taken in this regard may please be communicated to this end within one month of completion for each festive period .

Yours faithfully,


MEMBER SECRETARY

Memo No. 13051 /dt. 18.08.2023

Copy forwarded to Sri P.K. Mishra, Divisional Head, WQM-I, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi 110032 for kind information.


CHIEF ENVIRONMENTAL SCIENTIST


Memo No. 13052 /dt. 18.08.2023

Copy forwarded to the Director, Env.-cum-Spl. Secy. to Government, Forest, Environment and Climate Change Department, Govt. of Odisha for kind information and necessary action.


CHIEF ENVIRONMENTAL SCIENTIST

Memo No. 13053 /dt. 18.08.2023

Copy forwarded to the Principal Secretary, H & UD Department, Govt. of Odisha for kind information and necessary action.


CHIEF ENVIRONMENTAL SCIENTIST

Contd ..p/3



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Memo No. 13054 /dt. 18.08.2023

Copy forwarded to the Revenue Divisional Commissioner, Central Division, Cuttack / Revenue Divisional Commissioner, Northern Division, Sambalpur/ Revenue Divisional Commissioner, Southern Division, Berhampur for kind information and necessary action.

N. Mallik 12/8
CHIEF ENVIRONMENTAL SCIENTIST

Memo No. 13055 /dt. 18.08.2023

Copy forwarded to the Commissioner, Bhubaneswar Municipal Corporation / Cuttack Municipal Corporation / Rourkela Municipal Corporation / Berhampur Municipal Corporation / Sambalpur Municipal Corporation for kind information and necessary action.

N. Mallik 12/8
CHIEF ENVIRONMENTAL SCIENTIST

Memo No. 13056 /dt. 18.08.2023

Copy forwarded to the Executive Officer of all Municipalities and NACs for kind information and necessary action.

N. Mallik 12/8
CHIEF ENVIRONMENTAL SCIENTIST

Memo No. 13057 /dt. 18.08.2023

Copy forwarded to the Regional Offices of State Pollution Control Board, Angul, Balasore, Bhubaneswar, Berhampur, Balangir, Cuttack, Jharsuguda, Kalinganagar, Keonjhar, Koraput, Paradeep, Rayagada, Rourkela, Sambalpur for information and necessary action.

N. Mallik 12/8
CHIEF ENVIRONMENTAL SCIENTIST



REGIONAL OFFICE, BALASORE
STATE POLLUTION CONTROL BOARD, ODISHA
(FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA)
Plot No.1602, Ganeswarpur, Balasore -756019

Tel: 06782-244110
Email: rospcb.balasore@ospcbboard.org
Website: www.ospcbboard.org

No. 3259 /Estt./232

Date. 27.10.2023

To,
The Chief Environmental Scientist
Central Laboratory
State Pollution Control Board, Odisha
Bhubaneswar

Sub: Circulation of Public Notice on "Appeal to Observe Pollution free Ganesh Puja, Biswakarma Puja, Khudurukuni Puja, Durga Puja, Gajalaxmi Puja and Saraswati Puja"

Ref. Head Office letter No.13965, dt.04.09.2023

Sir,

With reference to the letter on the subject cited above, this is to intimate that all the ULBs under the jurisdiction of this office have been requested vide this office letter No.2687, dt.11.09.2023 (copy enclosed) to create awareness during the ensuing puja festivals for effective implementation of the Odisha Preventive and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules, 2011.

This is for kind information and necessary action.

Encl: As above

Yours faithfully,


27/10/2023
Regional Officer



Tel: 06782-244110

Email: rospcb.balasure@ospcbboard.org
Website: www.ospcbboard.org



REGIONAL OFFICE, BALASORE
STATE POLLUTION CONTROL BOARD, ODISHA
(FOREST, ENVIRONMENT & CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF ODISHA)
Plot No.1602, Ganeswarpur, Balasore -756019

No. 2687/Estt./232

Date. 11-09-2023

To,

The Executive Officer, Balasore Municipality,
The Executive Officer, Baripada Municipality
The Executive Officer, Rairangpur Municipality
The Executive Officer, Bhadrak Municipality
The Executive Officer, Basudevpur Municipality
The Executive Officer, Jalaeswar NAC,
The Executive Officer, Soro NAC
The Executive Officer, Nilagiri NAC
The Executive Officer, Udala NAC
The Executive Officer, Karanjia NAC
The Executive Officer, Dhamnagar NAC
The Executive Officer, Chandbali NAC

Sub: Effective implementation of the Odisha Prevention and Control of Water Pollution (Procedure for immersion of Idol after Pujas) Rules, 2021 – reg.

Ref. Head Office letter No.13965, dt.04.09.2023

Sir,

With reference to the subject cited above, please find enclosed herewith the Procedure for immersion of Idol after Pujas for prevention of water pollution during ensuing major festivals such as Ganesh Puja, Khudurkuni Puja, Durga Puja, Gajalaxmi Puja, Kali Puja and Saraswati Puja. The awareness among the stake holders of the ensuing puja festivals may be done for effective implementation of the Odisha Prevention and Control of Water Pollution (Procedure for immersion of Idol after Pujas) Rules, 2021. In this regard the Board has issued public notices in English and Odia for wide circulation among the stakeholders to create awareness during the puja festival which is enclosed with the letter under reference.

This is for kind information and necessary action.

Yours faithfully,

Encl: As above


11/09/2023
Regional Officer



Tel : 0663-2950151
Email : rospcb.sambalpur@ospcbboard.org
Website : www.ospcbboard.org



OFFICE OF THE REGIONAL OFFICE, SAMBALPUR
STATE POLLUTION CONTROL BOARD, ODISHA
[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
1070, Hospital Road, Modipara, Sambalpur-768002

No. 3619...../ IV-MISC-Lab/02/2015-16 "By Regd. Post"
From: Date. 27.10.2023/

Dr. S. N.Nanda
Regional Officer

To
The **Chief Env. Scientist**
State Pollution Control Board, Odisha
A/118, Nilakantha Nagar, Unit: VIII
Bhubaneswar -12

Sub: Action taken report for idol immersion during Ganesh Puja 2023


Sir,

With reference to the subject cited above, please find enclosed the Action taken report for idol immersion during Ganesh Puja of the Regional Office State Pollution Control Board, Sambalpur.

This is for your kind information and necessary action.

Encl: As above

Yours faithfully,


Regional Officer

Action Taken Report on Ganesh Puja, 2023 at Sambalpur City of Sambalpur Municipal Corporation, Dist: Sambalpur

This year Ganesh Puja 2023 has been celebrated in a few puja pendals of Sambalpur city. It was observed that Ganesh puja has also been celebrated at different houses/ shops/ schools and different organizations with small idols/Photos.

This office has circulated the Public Notice on "Appeal to observe Pollution Free Pujas to the Collector & DM, Sambalpur/ Commissioner, Sambalpur Municipal Corporation and all NAC's of Sambalpur district/ Collector & DM, Bargarh/ Bargarh Municipality and all NAC's under Bargarh district.

As the exact number and address of Ganesh Puja Committees of Sambalpur city were not available with this office, awareness of pollution-free puja has been conducted on a few puja pendals. Further, it was requested to the concerned puja committees not to use single-use plastic items in the puja pendals, not to use thermocol items for decoration purposes, use natural clay instead of plaster of Paris, etc. for idol making, use soluble natural dyes for the painting of idols instead of toxic non-biodegradable chemical dyes and requested to make small size idol for the Ganesh Puja, 2023.

Though the Sambalpur Municipal Corporation (SMC) has provided a temporary idol immersion pond in the Durgapali area for Sambalpur City, it was observed that few idols have been immersed in the immersion pond provided by the SMC. As there was rainfall during most of the puja periods it was also affect the idol immersion.

This office has conducted water quality monitoring at Sambalpur city for the idol immersion pond/sites along with river Mahanadi in three phases such as pre-, during, and post-Ganesh Puja, 2023 as per the revised Guidelines for idol immersion (12.05.2020) for assessment of water quality. All the water samples collected have been sent to the Central Laboratory for analysis.



Asst Scientific Officer
S.P.C. Board, Sambalpur
Asst. Scientific Officer,
Regional Office of State Pollution
Control Board Sambalpur



Regional Officer
S.P.C. Board, Sambalpur
Regional Officer
State Pollution Control Board
Regional Office, Sambalpur



Annexure-4

**COLLECTORATE, KORAPUT
(JUDICIAL SECTION)**

No. 4054 /XXI-1/2023

Date : 11 . 09 . 2023.

To

The Project Director, D.U.D.A, Koraput/
The Sub-Collector, Koraput/ Jeypore/
The Superintendent, SLNMCH, Koraput/
The C.D.M & P.H.O, Koraput/
All the Tahsildars of this district/
All the Executive Officers of ULBs of this district.

Sub: Implementation of the Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rule, 2021.

Ref:- This office letter No.1334 dated.02.04.2022.

Sir,

On the above subject vide letter under reference, you were requested to take appropriate steps for creating awareness among the Idol makers, Puja Committee Organisers, Public and other stake holders on the rules communicated vide this office letter No.1334 dated.02.04.2022 and a line of reply on the steps taken by you may please addressed to the undersigned for kind perusal of Collector and sending an action taken report to the State Pollution Control Board, Odisha, Bhubaneswar. But, as yet no such report has been received in this office as a result the report which is supposed to be submitted to higher quarters by the Collector is held up. Now, the Member Secretary, SPCB, Bhubaneswar is pressing hard to submit the action taken report on the above matter within one month of completion of each festival period. A copy of letter No.13050 dated.18.08.2023 of Member Secretary, SPCB, Bhubaneswar is enclosed herewith for your reference.

Therefore you are once again requested to submit the action taken report immediately to avoid further delay on the matter and submit the action taken report on the above matter within one month of completion of each festival period unflinchingly.

This may please be treated as **Most Urgent**.

Yours faithfully,


**Addl. District Magistrate,
Koraput.**



Memo No. 4055/2023

Date : 11 .09.2023.

Copy alongwith copy of letter No.13050 dated.18.08.2023 of Member Secretary, SPCB, Bhubaneswar submitted to the Superintendent of Police, Koraput for information and necessary follow up action.


**Addl. District Magistrate,
Koraput.**

Memo No. 4056/2023

Date : 11 .09.2023.

Copy to Regional Officer, Regional Office, State Pollution Control Board, Ground Floor, Door Sanchar Bhawan, BSNL, Koraput for information and necessary action.

Copy submitted to Member Secretary, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakanthanagar, Unit VIII, Bhubaneswar-751012 for information and necessary action.


**Addl. District Magistrate,
Koraput.**



E-mail: rospcb.berhampur@ospcbboard.o

Website: www.ospcbboard.org

REGIONAL OFFICE OF THE
STATE POLLUTION CONTROL BOARD, ODISHA
[DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA]
2nd Floor, New Division Office, IDCO, Berhampur Division,
Industrial Estate, Berhampur, Dist- Ganjam - 760008, Odisha, India

No. 3397 / Legal (Misc)-01/2015

Dt. 16/10/2023
E-despatch/E-mail

To

The Chief Environmental Scientist,
Central Laboratory,
State Pollution Control Board, Odisha,
Plot No.B-59/2 & 3, Chandaka Industrial Estate, Patia,
Bhubaneswar-751024

Sub: Submission of Action taken report on effective implementation of the "Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules, 2021" during festive season 2023- reg.

Ref: - Head Office letter no. 16055 (14) dtd. 10.10.2023.

Sir,

With reference to the above, the action taken report on effective implementation of the "Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules, 2021" during festive season 2023 is enclosed for favour of kind information and necessary action.

Encl: As above

Yours faithfully,


16/10/2023
REGIONAL OFFICER

ACTION TAKEN REPORT ON

**IMPLEMENTATION OF THE “ ODISHA PRESERVATION AND CONTROL OF WATER POLLUTION
(PROCEDURE FOR IMMERSION OF IDOLS AFTER PUJAS) RULES, 2021**

The Berhampur Municipal Corporation (BeMC), Berhampur, Dist- Ganjam has constructed 3 numbers of temporary idol immersion ponds for immersing the clay idols on the festive occasion such as Ganesh Puja , Khudurikuni Puja, Biswakarma Puja, Durga Puja, Gajalaxmi Puja & Kali Puja-2023.

1. Tentative size of each pond and number of idols immersed in each pond after Ganesh Puja, Biswakarma Puja & Khudurikuni Puja for the year 2023 are mentioned in Table -1 as follows:

Table -1:

SI No.	Location of Temporary Idol Immersion Pond	Size (l×b×h)	Number of idols immersed during Ganesh puja, Biswakarma Puja & Khudurikuni puja (including household idols)
01.	Below Gosaninuagaon over bridge	30'×20'×5' (approx)	30 (approx.)
02.	Near Haridakhandi main road	30'×20'×5' (approx)	60 (approx.)
03.	Near Meenakhi Nagar main road	30'×20'×5' (approx)	97 (approx.)

2. Photographs of temporary immersion ponds as physical evidence of the implementation of the actions:



(a)



(Fig 1: Temporary pond constructed by BeMC (a) Below GosanInuagaon Over Bridge Near Haridakhandi Main Road, (b), (c) Near Meenakhi Nagar Main Road)

3. Status of Temporary ponds after immersion:

Efforts has been taken by BeMC for removal of Immersed Idols after Ganesh Puja, Biswakarma Puja & Khudurikuni Puja and were shifted to Solid Waste Management site of BeMC. These temporary Idol Immersion ponds constructed by Berhampur Municipal Corporation (BeMC), Berhampur will also be used for the Immersion of Idols during Durga Puja, Gajalaxmi Puja & Kali Puja. It was learnt that, after Immersion of Idols of Durga Puja, Gajalaxmi Puja & Kali Puja, BeMC will completely remove the solid materials from the temporary ponds for shifting to Solid Waste Management site of BeMC. They will add lime for the treatment of water and subsequently after 3rd day of treatment, all 3 nos. of temporary ponds mentioned in Table -1 will be filled up with soil.

Trilochan Sampat
Sri Trilochan Senapati, JSA
S.P.C Board, Berhampur

Punam
 16/10/2023
Miss Punam Behera, AES
S.P.C Board, Berhampur



Tel : 0671-2314255

E-mail: rospcb.cuttack@ospceboard.org

Website: www.ospceboard.org



OFFICE OF THE REGIONAL OFFICER, CUTTACK
STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
586, SURYAVIHAR, LINK ROAD CUTTACK-753012

No. 2883 / (RO/ CTC/ LAB-05) Date. 16.10.2023 /
To

The Member Secretary,
State Pollution Control Board, Odisha,
A/118, Nilakantha Nagar, Unit- VIII, Bhubaneswar

Sub: Submission of action taken report in compliance to the “Odisha Prevention and Control of Water Pollution (Procedure for immersion of idols after Pujas) Rules, 2021” during **Ganesh Puja, 2023**– reg.

Ref: Your Letter No. 16055(14) dtd. 10.10.2023

Sir,

o/c In inviting reference to the subject cited above, please find enclosed herewith the action taken report in compliance to the “Odisha Prevention and Control of Water Pollution (Procedure for immersion of idols after Pujas) Rules, 2021” during **Ganesh Puja, 2023** in Cuttack City.

This is for your kind information and necessary action.

Yours faithfully

Regional Officer

Memo No 2884

Dt. 16.10.2023

Copy forwarded to Chief. Env. Scientist (L), Central Laboratory, State Pollution Control Board, Odisha, Plot No—B-59/2 and 59/3, Chandaka Industrial Estate, Patia, Bhubaneswar for kind information.

Regional Officer

**ACTION TAKEN REPORT IN COMPLIANCE TO ODISHA
PREVENTION OF WATER POLLUTION (PROCEDURE FOR
IMMERSION OF IDOL AFTER PUJAS) RULES, 2021 DURING GANESH
PUJA, 2023 IN CUTTACK CITY**

Idol immersion has contributed a significant role in water pollution of Rivers, Nallas and other water bodies. To regulate the issue, many significant steps have been taken by the Central and State Government. Central Pollution Control Board (CPCB) has published guideline on Idol immersion for immersion of Idols in the festive occasion. Further, the guideline has been revised on dated 12.05.2020

Based on the aforesaid guideline and as per the Letter No.14123, dt. 07.09.2023 of SPC Board, Odisha, Bhubaneswar, the Regional Office, State Pollution Control Board, Cuttack had carried out water quality monitoring of rivers to assess the pollution loads on water bodies due to immersion of idols during **Ganesh Puja Festival, 2023** of Cuttack City.

For the **Festival of Ganesh Puja, 2023**, Cuttack Municipal Corporation (CMC), Cuttack had constructed 11 no of temporary ponds for immersion of idols at Devigada, Belview, Chahata, Kartikeswar gada, Marietime Museum, Dasatutha Jobra, Neheru Palli, Abhiram Math Nuapada, Nuapada Balighat, Khan Nagar Balighat & Gopalpur as informed by CMC and verified .

As observed during Water Quality Monitoring, the temporary ponds were provided with HDPE liner, Hoarding Board and approach road for easy access to the temporary immersion site.

During immersion of idols of **Ganesh Puja, 2023** most of the idols were immersed in the temporary ponds available at Devi Gada near Puri Ghat of Kathjodi River and at Kartikeswar Gada available at Gagagadia ghat of Mahanadi River. A very few no of idols were immersed in the temporary immersion ponds made at other locations of Cuttack City, as mentioned above. Photographs of the idol immersion ponds are attached as (**Annexure-I**).

After immersion, the left over material from the temporary immersion ponds were observed to be removed by Dozer and loaded to the Tractor of Municipality for final disposal at the designated Municipal dump site. Further, it was observed that the temporary pond water was cleaned by adding lime.

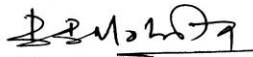
Cont...



Water Quality Monitoring carried out as per the guideline

The Officials of the Regional Office, SPCB, Odisha, Cuttack had collected water samples from rivers i.e Up stream - 100m up from temporary pond, immediate of temporary pond, Downstream - 100m down from temporary pond and further downstream of river Kathajori and Mahanadi during **Ganesh Puja, 2023**, in three stages, on pre idol immersion (dt.12.09.2023), during idol immersion (dt.25.09.2023) and post idol immersion after 3rd (dt. 27.09.2023), 5th (dt.29.09.2023), 7th (dt.01.10.2023) & 9th (dt.03.10.2023) day of the immersion and submitted the samples to Central Laboratory, SPC Board at Patia, Bhubaneswar for analysis of following parameters.

pH, DO, Colour, BOD, COD, Conductivity, Turbidity, TDS, Chloride, TSS, Hardness, Total Alkalinity and Metals (Such as Chromium, Lead, Zinc, Copper, Cadmium, Mercury, Antimony, Barium, Cobalt, Manganese).


Mr. B. B Mohanty
(Asst. Scientific Officer)
16.10.2023


Mrs. R. Priyadarshini
(Regional Officer)

Annexure-I





Tel: 06722-291044
Email: rospcb.paradeep@ospcbboard.org
Website: www.ospcbboard.org

**REGIONAL OFFICE OF THE
STATE POLLUTION CONTROL BOARD, PARADEEP, ODISHA**
[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
1ST FLOOR, CMCE BUILDING, MARINE DRIVE ROAD, NUA SANDHAKUDA, PARADEEP
JAGATSINGHPUR-754142

No 1540 /

RO/PDP/MISC(GEN)/26

Date 02-11-2023 /
By Speed Post/E-mail

From

Shri P C Behera
Regional Officer

To

The Chief Environmental Scientist
Central Laboratory, Patia
State Pollution Control Board, Odisha
Bhubaneswar

Sub- Report on Idol Immersion during Ganesh Puja-Regd

Ref- Your letter no. 16055(14) dtd.10.10.2023

Sir,

With reference to the subject and letter cited above, I am submitting herewith the report on idol immersion during Ganesh Puja under the Jurisdiction of this office for favour of kind information and necessary action.

Yours faithfully

Encl.: As Above


Regional Officer

Action taken report on idol immersion during Ganesh Puja under the jurisdiction of Regional Office, SPCB, Paradeep

There were very few small idols since Ganesh Puja is not so pompous in the districts of Jagatsinghpur and Kendrapara. The idols were immersed in the ponds which had earthen bunds with bamboo barricades and were lined with high-density polyethylene (HDPE) sheets from all sides. All the leaves, flowers and ornaments were removed before the immersion of idols. After the immersion of idols, the settled solid waste was removed and transported to the municipality landfill site. Bleaching powder was applied in adequate quantity for the treatment of water.

Idol immersion had taken place in the above mentioned manner (Annexure-I) in the following places.

01. **Paradeep Municipality, Dist-Jagatsinghpur:** - There was only one immersion pond in Paradeep near Nuabazar.
02. **Patatamundai Municipality, Dist-Kendrapara:-** There was only one immersion pond in Balipada, Pattamundai, Kendrapara.


02/11/23

Mrs.A.Panda
Asst.Env.Scientist


02/11/23

Mr.D.L.Mahapatra
Dy.Env.Engineer

Annexure-I

A few photographs of the idol immersion ponds.



Photo:Paradeep Municipality



Photo:Paradeep Municipality



Photo:Pattamundai Municipality



Photo:Pattamundai Municipality



REGIONAL OFFICE
STATE POLLUTION CONTROL BOARD, ODISHA,
(DEPARTMENT OF FOREST, ENVIRONMENT & CLIMATE CHANGE, GOVERNMENT OF ODISHA)
At-Near Hockey Chowk, P.O.-Panposh, Rourkela, Dist-Sundargarh-769004

E-mail: rspcb.rourkela@ospboard.or
Website: www.ospboard.or

No. 4902....

Date 21/11/2023....

From

Dr. Anup Kumar Mallick,
Sr. Env. Scientist and Regional Officer

To

The Chief Environmental Scientist (Lab)
Central Laboratory, State Pollution Control Board, Odisha
Plot No: B-59/2 & 59/3, Chandaka Industrial Estate, Patia
Bhubaneswar – 751024

Sub: Submission of Action Taken Report on Effective implementation of the "Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules,2021"-Regarding.
Ref: Head Office Letter No.17755, dtd.10.11.2023.
Sir,

In inviting reference to the subject cited above, this is to inform that the actions taken for effective implementation to the Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules,2021 are as follows:

1. Distribution of leaflets to different Puja committees and mandaps to appeal for no use of Single Use Plastics and use of idols of natural colours.
2. Letter issued for implementation of "Odisha Prevention and Control of Water Pollution (Procedure for Immersion of Idol after Pujas) Rules,2021" to all ULBs in the district of Sundargarh vide this office letter No. 3873,3887,3884,3893, dtd.05.09.2023 and to ULBs in the district of Deogarh vide this office letter No. 3890, dtd.05.09.2023.

The details of Idol immersion ponds and photographs are annexed here.
This is for your kind information & necessary consideration.

Encl: As above

9/2

Yours faithfully

Regional Officer

Implementation of the guideline prepared by CPCB on Practice of idol Immersion by Regional Office, Rourkela

Name of the District	Name of the ULB	Nos. And Size of immersion Pond	Nos. of Idol Immersed
Sundargarh	Sundargarh Municipality	<ul style="list-style-type: none"> ◆ Bank of Ib River near Mahadevpada Village: The construction of temporary pond having sandbunds and laying of synthetic liner were undertaken by the Sundargarh Municipality. ◆ Size of the pond 60Ft x 60Ft x 10Ft 	12
Sundargarh	Rourkela Municipal Corporation	<ul style="list-style-type: none"> ◆ Near Brahamani River at Balughat: The Municipal Corporation has provided one temporary confined pond as immersion pond. ◆ Size of the pond 60Ft x 28Ft x 4.20Ft 	108
Sundargarh	Rajgangpur Municipality	<ul style="list-style-type: none"> ◆ Near Liploi Bridge, Ward No. 11, Rajgangpur: The Rajgangpur Municipality has provided a temporary confined pond as immersion pond. ◆ Size of the Pond 85Ft x 50Ft x 08Ft 	92



(Idol Immersion site of Rourkela Municipal Corporation)



(Idol immersion site of Sundargarh Municipality)



(Idol immersion site of Rajgangpur Municipality)



REGIONAL OFFICER