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**PROTECTION OF ENVIRONMENT AND AWARENESS AMONG THE  
STUDENTS ABOUT GANESH FESTIVAL**

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**INTRODUCTION:**

In India many festivals are celebrated according to different religions. The traditional celebration is not hazardous to nature but high-tech and modern celebration can cause damage to the environment. The Ganesha festival is very close to environment than other festivals. Idols of Lord Ganesha are lovingly brought home and worshipped with great devotion. He is propitiated with great reverence particularly in the state of Maharashtra. It was Lokmanya Tilak who realized that community celebration of religious festivals would bring people together. He introduced the tradition of celebrating the Ganesha festival in Maharashtra on such a grand scale. Traditionally, clay was used to make Ganesh idols. Over the years however, plaster of Paris (POP), which is lighter and cheaper, has become the favored material to mold these idols. POP contains chemicals such as gypsum, sulphur, phosphorus, and magnesium. The dyes used to colour these idols contain mercury, cadmium, arsenic, lead, and carbon. Plastic and thermocol accessories are used to decorate these idols. Such materials are not biodegradable, hence are toxic. Also, while earlier the idols were quite small, today a spirit of competitiveness pervades the celebrations, so that the idols are becoming increasingly colossal. The festivities come to an end on Anand Chaturdasi, when both the community idols and the idols from people's homes are taken to the sea or nearest river or lake for visarjan or immersion. Household idols can be immersed after one and a half, seven or ten days after installation. In towns and villages, massive processions are taken out with people dancing on the streets shouting 'Ganpati Bappa Maurya, Pudchya

Varsha Luvkarya!' The immersion of idols made from non-biodegradable or toxic materials has the following environmental repercussions:

With the immersion of these idols in the sea or inland water bodies such as lakes and streams, the chemicals in these idols dissolve in the water. POP dissolves slowly, gradually releasing its harmful components.

The water experiences a rise in acidity as well as traces of heavy metal. The toxic waste kills plant and animal life in the water. In Mumbai, for instance, dead fish washed ashore after the immersion is a common occurrence.

Plastic and thermocol waste, including polythene bags containing offerings, is usually immersed with the idols. Because it is non-biodegradable meaning that it does not decompose this waste simply keeps adding up.

It also obstructs the flow of streams, leading to flooding during the rains. Running water, when obstructed, turns stagnant. This can become a breeding ground for diseases and is a major health hazard for a locality.

People who use water polluted by these immersions experience a host of health problems such as infections of the lungs, and diseases of the skin, blood, and eyes.

#### **MATERIALS AND METHODS:**

By considering this the present investigation deals with the study of awareness about eco-friendly Ganesh festival to check the pollution. Students of Jaysingpur College and non-governmental organizations in Jaysingpur, had taken up the task of spreading awareness about environment-friendly Ganesh idols. The sensitization workshop was organized in College in the month of August 2017. About 735 students of the college were participated in this workshop. The batch wise training was given to the students that how to prepare the Ganesh idols from earthen clay and by the waste papers as well as how and where the visarjan/ emergence of Lord Ganesh idols carried out.

The waste papers were used for preparation of Ganesh idols. The waste papers shreds and turns it into pulp, which was then rinsed, dried, and again put into a mixer to get fine powder. The powder was then mixed with water to be

made into paper mache. Around 20 per cent clay and starch is added to the material so that it binds well.

Water samples from river, streams, and well were tested pre and post emergence of idols. BOD and COD were tested. The figures in observation table are mean of three replications.

In case of BOD the water samples were collected and incubated at 20 °C for 5 days (NEERI, 91) and COD was determined by Potassium dichromate open reflex method.

### RESULT AND DISCUSSION:

Number of students (out of 735) used Ganesha idols before sensitization workshop.

POP idols		Clay idols	
No. of students	%	No. of students	%
675	91.83	60	8.17

No. of students (out of 735) used Ganesha idols after sensitization workshop.  
(Year 2017)

POP idols		Clay idols	
No. of students	%	No of students	%
64	8.70	611	91.30

No. of students (out of 735) used thermocol and plastic for decoration before and after sensitization workshop.

Thermocol				Plastic			
Before		After (Used Papers)		Before		After (Used Biodegradable Material)	
No. of students	%	No. of students	%	No. of students	%	No. of students	%
418	56.87	592	80.54	307	41.77	653	88.84

No. of students (out of 735) immersed the idols before and after sensitization workshop.

In water reservoirs – 708 students (96.33%) before sensitization workshop. In artificial tanks – 416 (56.60 %) after sensitization workshop. In bucket – 310 (42.18 %) after sensitization workshop. No. of students immersed nirmalya with plastic and thermocol waste in river or any other water reservoirs before and after sensitization workshop.

Before - 639 students (86.94 %)

After - 13 students (1.77 %)

448 students (60.95 %) used nirmalya and offering degradable material for compost after sensitization workshop where the previous figure was only 2.17%

The Ganesha idols offered and collect by people at the time of ganesha immersion = 698.

The Ganesha idols removed and collected after immersion in water = 1537.

Water samples tested before and after immergence of idols in year 2017

Water samples collected from	BOD before immersion mg/l	BOD after immersion mg/l	COD before immersion mg/l	COD after immersion mg/l
River	8.4	16.7	47	68
Well	15.5	24.9	67.1	103
Streams	4.5	11.3	43.2	83.3
Canal	10.2	12.4	59	99
pond	13.8	37.6	48	114

Figures are mean of three replications.

#### FINDINGS:

1. Such sensitization workshops are useful to aware the students and public about environmental pollution.
2. About 91.83 % students were previously purchased POP idols and 8.17 % clay idols, but after workshop 91.30 % students were used clay idols prepared in workshop for festival.
3. Previously 56.87 % students were used thermocol and 41.77 % used plastic for the decoration purpose but students were sensitized in workshop that 80.54 % students use paper and 88.84 % use other biodegradable material for the decoration.
4. About 98.78 % students were encouraged to immerse the idols in artificial tanks or in bucket rather than in natural water bodies.
5. In case of immersens of nirmalya with plastic and thermocol waste the figure was reduced from 86.94 % to 1.77 %.
6. BOD and COD were increased after imergence of ganesha idols which were painted by chemical and artificial dyes.

*Dr. Tushar G. Ghatage.*

**SOLUTIONS:**

There are ways to reduce the environmental damage from Ganpati celebrations:

1. Avoid the idols made from POP. Always go for those made of unbaked natural clay, natural fibre, or even recycled paper.
2. Ensure that the dyes used to colour the idols are organic or vegetable in origin. Some years ago, natural clay idols were not always easy to get and had to be specially ordered.
3. Today, however, many volunteer organizations make and sell these environmentally safe idols and encourage people to parches.
4. Do not use thermocol or plastic for decorations for your Ganpati idol. Instead, use cloth, wood, paper, and other natural materials that are safer when immersed in water.
5. Immerse the idol in a tub or a tank specially made for the purpose. Later, you can discard the water by pouring it into your garden.
6. If there is an artificial tank in your area specifically created for immersion purposes, use this instead of a natural source of water such as a lake or a stream.
7. Some people use a metal or stone idol. They symbolically immerse in a bucket of water, or even carry it in procession to the immersion place, hold it under the water, and then bring it back home.
8. Collect offerings of flowers and other organic material and put them in a compost pit. These can be used to fertilize your garden. If you must immerse them, wrap them in newspapers instead of polythene bags.
9. Song and dance are an integral part of the Ganesh Chaturthi celebrations. However, ear-splitting decibels are not just disturbing, but a major health hazard. Moderation is the key to a safe and enjoyable Ganesh Chaturthi.

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