

# 'Man-made catastrophe': NGT Commission submits scathing report on Bellandur Lake

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- Theja Ram
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#### Bellandur lake



The Commission set up by the National Green Tribunal to determine the extent of damage in Bellandur and Varthur lakes in Bengaluru has submitted a scathing and explosive report.

The Commission, in its report severely objurgated authorities' in-charge of Bellandur lake and said, "Apparently, the biggest lake of the beautiful city of Bengaluru by sheer callousness and indifference of the authorities has become the largest septic tank of the city."

The Commission noted that the Bellandur Lake has "rapidly shrunk" due to "indiscriminate dumping of construction and demolition waste, municipal solid waste and due to vast spread of hydrophyte and microphytes in the lake water".

#### Shrunken lake area and encroachment

According to an analysis by the Karnataka State Remote Sensing Applications Centre, the lake area was 906 acres 25 guntas in 1973, which has now been reduced to 322.85 acres.

"An approximate area of 2 acres and 25.08 guntas has been encroached by DRDO under the category of Government Encroachment. We have also been apprised that an approximate area of 4 acres and 02.08 guntas is under private encroachment," the report adds.

## Reduced water storage capacity

As per the Commission, the water storage capacity of the lake in 1973 was 18.67 ml cubic meters and the capacity currently stands at a mere 5.50ml cubic meters. The remaining 13.16ml cubic meters of storage capacity now consists of 6.60 ml sediment deposits and 6.56 ml cubic meters of slush deposits. The ultra-utility of the lake, and its storage capacity has diminished by 71.45%, says a report by the Indian Institute of Science.

"The factors namely sediments, slush deposits and hydrophytes, which led to this man-created catastrophe has been subsequently enumerated extensively in the report," the Commission stated.

#### The infamous fire

According to the report, the Bellandur Lake has caught fire 12 times since the first incident on August 12, 2016.

According to a report submitted by the Fire Department and the Karnataka State Remote Sensing Applications Centre to the Commission, 53.16 acre of Bellandur Lake has suffered burn due to fire.

"The Central Pollution Control Board (CPCB) has submitted that high oil and grease values in Bellandur Lake amounting to 24.27mg/l, is because it has been accumulating over the years. This oil and grease, when sticks to hyacinth and dried grass results in becoming conducive material for fire and smoke," the report adds.

The Commission also concluded that the spontaneous combustion of the accumulated methane is not the cause for the fire as the area has never witnessed the required increase in temperature for methane to combust (537 degrees Fahrenheit).

The Commission is of the opinion that the fire was a result of an accidental spark or that it was deliberately set off.

# Cleaning up of water hyacinth (hydrophates)

The Commission noted that 60% of the 366 hectares of lake area was covered with water hyacinth and that the pace of de-weeding was so slow that the hyacinth would grow back in no time.

"After looking at the pace of de-weeding process that was going on, the Commission was of the unequivocal view that the de-weeding could never be completed in near future. The reason for the same is not only slow pace of the work with only four de-weeding machines at site functioning at the time of inspection," the report states

Also, huge mounds of de-weeded hyacinth had been dumped along with domestic waste material like plastic on the site itself and that the de-weeded hyacinth was not being converted to compost in a scientific manner.

Up on inquiry, the Commission found that no organisation or government agency is willing to accept the de-weeded, mound of garbage, which is being passed off as compost and dumped on the site of the lake.

"15-20 feet deep pits are made in the lake bed within the boundary of the lake. The said compost along with its solid waste is dumped into the pit and then covered with excavated earth. Shockingly, the excavated earth for creation of pits for composting was to a large extent nothing but construction and demolition waste," the report states.

"There cannot be a greater farce than the alleged removal of hyacinth and disposal of the socalled compost on which lakhs and lakhs of precious public money is being diverted," it adds.

### Municipal and solid waste

The report states that approximately 22,000 cubic metres of construction and demolition debris has been dumped in the past. In addition, substantial amount of Municipal Solid Waste had been piled up at the outlet points of the Rajakaluve into Bellandur Lake.

The report states the presence of 6.56 million cubic metres (MCM) of slush deposit, 6.606 MCM of sediment deposit and 1700 Kg per cubic metre of bulk density sediments were present in the lake.

#### Sewage entering the lake

There are totally 17 inlets into Bellandur Lake. Of these only two of them carry treated water into the lake and five of them carry sewage. The remaining 10 are dry during the non-monsoon period.

"The paramount reasons for pollution of Bellandur/Varthur Lake are sewage flowing in the storm water drains entering the lake, rapid and large-scale urbanization, change in land use pattern, under capacity of sewers, encroachment of sewers, damages to sewerage system and direct discharges from apartments, new layouts etc., leading to substantial quantity of sewage flowing in the storm water drains," the report states.

According to the report, the sewage from the Koramangala SWD amounts to 83 MLD, 80 MLD from the Agara SWD, 11 MLD from the HAL SWD, 5.6 MLD from the Iblur SWD and 3.4 MLD from the Kempapura SWD.

"The Commission however observed that unfortunately the directions by this Hon'be Tribunal to correct the mischief have not been complied with in letter and spirit since the untreated effluent and sewage indiscriminately continues to pollute the lakes," the report adds.