BEFORE THE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE,
CHENNAI.

Original Application No.27 of 2021(SZ)

Tribunal on its own motion
Suo Motu based on the news item in
The Hindu E-Paper, Edition dt.28.01.2021,
"Faecal contamination high in Perandoor,
Edappally Canals"

....Applicant(s)

Versus

The Principal Secretary to Govt. Of Kerala,
Environmental Department and others

.....Respondents

Report filed by GCDA

Jimmy George
Counsel for the 7th Respondent

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Versus

1) The Principal Secretary to Govt. Of Kerala,
Environmental Department,
Room No.406, 4th Floor Annex II,
Secretariat, Thiruvananthapuram -695 001.

2) The Principal Secretary to Govt. Of Kerala,
Health and Family Welfare Department,
Room No.603, 6th Floor, Annex II,
Secretariat, Thiruvananthapuram - 695 001.

3) Directorate of Environment & Climate Change,
Rep. by its Director,
4th Floor, K.S.R.T.C. Bus Terminal,
Thampanoor, Thiruvananthapuram - 695 001.

4) The Chairman,
Kerala state pollution control board
Head office, Pattoom P.O.
Thiruvananthapuram – 695 004.

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Secretary
GCDA

5) Kochi municipal Corporation
Rep. by its Corporation Secretary,
PB.No- 1016, Cochin
Ernakulam, Kerala- 682 011.

6) The District collector,
Ernakulam District,
District collectorate, First floor,
Civil station, kakkanad,
Ernakulam, Kerala – 682 030.

7) Greater Cochin Development Authority,
Rep. by its Chairman,
P.B. No.2012, Kochi – 682 020. .... Respondent(s)

7 th Respondent in the OA No. 27 of 2021 (SZ) of National Green Tribunal

GREATER COCHIN DEVELOPMENT AUTHORITY

1. Approval of Building Plan is carried out by Corporation of Cochin. Prior to 1999, as per the provisions of Building Rule, 1984, issuing of Development Permit which is also known as Layout approval was performed by GCDA. Kerala Municipality Building Rules, 1999 came into existence on 1-10-1999. Subsequently, vide G.O (MO) No.5122/E3/99 LSGD dated 5-12-1999 the authority to issue Development Permit was handed over to the concerned Local Self Administration Department / Local Bodies. Currently, the duty to issue Development Permit and Building Permit is vested with the concerned local bodies.

2. As per 1984 Building Rules, there were no provisions regarding STP to the Building owners. Rule 31 and Rule 36 of the Building Rule 1984 stipulates that the sewage, sullage shall be connected to the sewer. By ensuring this connection in the

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drawing / plan, GCDA used to give Development Permit / Layout approval. Based on that, the concerned local bodies used to give the Building Permit. At present, it is the duty of the concerned Local Bodies to check and ensure this connection after completion of the construction before issuing the occupancy certificate to the Building owners.

3. GCDA has its own proposal with regard to Sewage Treatment. At present, GCDA owns two STP's having 900 KLD and 750 KLD are functioning at marine Drive and Jawahar Lal Nehru International Stadium at Kaloor respectively. GCDA has a proposal to increase the capacity of the aforementioned existing STP as well as to construct new STP. In order to reach the full capacity within three months, GCDA had signed MOU with Wisdom Development Foundation and Ernakulam Jilla Septage Sewage Cleaning Thozhilali Union (CITU). The sewage from the shops and common toilets in the International Stadium alone is treating in the STP at Jawahar Lal Nehru International Stadium at Kaloor. As sewages from hotels are taking, GCDA need to provide an oil/grease trap with settlement tank. Proposal to construct three more STP had been prepared and submitted to KIIFB for approval. (1) STP at Life Mission Project site (1MLD) (2) STP at Kaloor Market (250 KLD) (3) ETP at Kadavanthra Market (30 KLD). Augmentation with technology up gradation of STP at Cochin Marine Drive from 900 KLD to 2 MLD. As of now, the waste water from the hotels and other commercial establishment are being dumped into the water bodies without any treatment. By implementing the above listed projects, GCDA aim to bring a partial solution to the problem.

<u>The Report prepared by GCDA on 14-9-2021 is reproduced herewith.</u>

Greater Cochin Development Authority (GCDA) was constituted by the Government of Kerala in 1976 with a view to mastermind an orderly and planned

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development in Kochi Corporation and its suburban areas. The present GCDA jurisdiction area comprises Kochi Corporation, 9 Municipalities and 21 Panchayats spread over an area of 632sqkm. As per the Kerala Municipality act 1994, the power to plan the development and physical infrastructure are vested with the concerned municipal corporation.

Report on Action Plan by KMRL under IURWTS

Under IURWTS *(Integrated Urban Regeneration Water Transport System)* project, KMRL aims to construct sewerage system along Perandoor Canal and Two Sewage Treatment Plants (STP) with 10 MLD and 4 MLD capacities at Elamkulam and Perandoor respectively. The catchment area of the projects is 15.14sqkm and a total of around 29000 houses are connected with this system. The Detailed Project Report (DPR) is under preparation. As per their timeline, the land acquisition procedure will be completed by November 2022 and the construction of sewer lines and both the STPs will be completed by November 2024. Similarly, KMRL proposes the Sewerage Systems and STPs for Edappally canal also.

It is expected a zero contamination of faecal contents in the canals after the implementation of this project. But in the meanwhile some alternate measures have to be undertaken to reduce the contamination. It is suggested to close all the septic tank openings to the canal and removal of sludge from septic tank periodically and treat them in the nearby available STPs. For that each household has to intimate Municipal Corporation when it is required to collect the sludge. This activity has to be undertaken by timely Municipal Corporation by using its own fund.

Treatment of Water Hyacinth

Water hyacinth one of the fastest growing plants and a kind of unwanted species and the large-scale outbreak of its leads to many environmental problems in Kochi.

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Water High hyacinth concentration in Perandoor and Edapally canal causes much harm in the city region. Most of the researchers are trying to figure out how to eradicate its growth in the canal. Under favourable growth conditions, these weeds may double within a weeks' time and they cover the entire surface of the water. Excessive growth can result in complete coverage of water surfaces, which degrades natural habitats in several ways, hence a study needed to find out how to eradicate of these from the water bodies.

Measures to remove the hyacinth have mostly been either through chemical treatments or manual removal and that is extremely ineffective and expensive. It has been proven in many studies efforts to control the growth of water weeds were attempted by methods such as physical removal, chemical and biological control, but all of them have failed.

But, these Water hyacinth has to be used for generation of some value added products. For example, bio gas, Ethanol, high caloric fuel etc can be produced from this plant. The presence of high content of hemicelluloses, cellulose and protein in these plants can provide enough nutrients for cellulose production by many microbial strains. Cellulose is widely used in the textile industry for the manufacture and finishing of cellulose-containing materials. These enzymes are tools for improving basic processing steps in textile manufacture and creating new types of fabric.

Similarly, this green waste such as leaves, stems and roots of water hyacinth can be converted into good quality organic fertilizer within a span of 28 days. The roots and stems are separated and chopped before pushing through the Accelerated Anaerobic Composting (AAC) process. The anaerobic culture developed by CSIR-IICT is blended with water hyacinth stem and leaves and appropriate mixing

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results in an organic fertilizer which is subsequently dried to marketable fertilizer. Similarly, roots can be put through the Accelerated Anaerobic Composting process to generate organic fertilizer, which can be used as compost. Making organic compost is one of the most economical solutions and can prove to be a permanent solution for most of the lakes that are polluted. Based on the necessity, water hyacinth could be exploited in many ways.

Water hyacinth leaves and stem are also used in the production of newspapers and other paper based products such as disposable plates, ready-to-plant biodegradable nursery pots, egg and fruit trays, cartoon models, toys, file boards, multi-purpose boards, special canvas for paintings etc.

Techniques can be adopted on a larger scale involving local stake-holders by giving incentives. These technologies will lead to economic utilization of weeds. Apart from generating local level employment and value added products, it will also increase the state's revenue through lake tourism, water transportation and fisheries.

The GCDA is not entrusted with the upkeep and maintenance of Peranadoor and Edapally canal. However, the authority shall cooperate with any scheme that forward by the district administration, Kochi corporation, KMRL or any other agency of the government to mitigate these problem in wider public interest.

Dated this the 31st day of January 2023

Jimmy George

Counsel for the 7th Respondent, GCDA

Abdul Malik. K.V
Secretary
GCDA

Secretary, GCDA

7th Respondent

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