

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI IN

Original Application No. 76 of 2017 (SZ)
Original Application No. 259 of 2017 (SZ) &
M.A.No.209 to 214 of 2017 (SZ)

With

Original Application No. 260 of 2017 (SZ)

AFFIDAVIT FILED BY SMT. BINDHU RADHAKRISHNAN, SENIOR
ENVIRONMENTAL ENGINEER OF KERALA STATE POLLUTION
CONTROL BOARD IN THE MATTER OF O.A NO.259/2017 IN
ACCORDANCE WITH THE ORDER DATED 09.03.2021 OF
HON'BLE NGT

I, Bindhu Radhakrishnan, D/o. M.P Krishnan kutty (Late), aged 52 years, am the Senior Environmental Engineer of Kerala State Pollution Control Board and I am duly authorised to file this affidavit. Copy of the letter of authorisation issued by the Chairman of the Board is produced herewith and marked as annexure R2 (1) and submit the following, subsequent to the order dated 09.03.2021.

Original application No. 76 of 2017 was taken up Suo-Motu by this Tribunal on the basis of News item published in Malayala Manorama newspaper dated, 25.03.2017 under the caption 'BLACK CITY'. The Suo-Motu case was in respect of black fumes spews in the air in the city of Cochin alone which causes air pollution. In this, this Tribunal considered the

aspect and passed the following orders:

NGT (SZ) directed the Central Pollution Control Board to evolve a procedure for measuring the carbon particles namely, Carbon Monoxide (CO) and Carbon Di-oxide (CO₂) and black carbon in the air which also will play a greater role in affecting the air quality.

Original Application No. 259 of 2017, is another case filed by Lawyers Environmental Awareness Forum (LEAF), an organization formed by Lawyers of High Court of Kerala who are dealing with the environmental issues arising in the State. In that case they have alleged that on account of plying of old vehicles, air pollution is being caused.

In Original Application No. 259 of 2017, this Tribunal considered the aspect and passed the following orders:

1. The question of ambient air quality in the State of Kerala, especially in the cities viz., Thiruvananthapuram, Kollam, Kochi, Alappuzha, Kozhikode, Thrissur, Calicut, Kasaragod and Kannur and sources of pollution and also long term and short-term steps to be evolved for the purpose of reducing pollution index and improve ambient air quality in the State of Kerala
2. Frame necessary time line for implementing the directions given in VARDHMAN KAUSHIK case in respect of banning of old vehicles and switch over to alternate clean fuel vehicles, including CNG and electric vehicles and

3. Submit a report to this Tribunal within a period of three months. The Kerala State Pollution Control Board will be nodal agency for this purpose.

Original Application No. 260 of 2017, is also a case filed by Lawyers Environmental Awareness Forum (LEAF) in respect of air pollution caused especially due to plying of large trucks, bus, Auto rickshaws, Taxi, etc., emitting smoke causing air pollution. So, all these cases are relating to the issue regarding the air pollution caused on account of the various reasons, particularly vehicular emissions and how to control the same in State of Kerala.

Since all these 3 cases are relating to the same issue, all three cases were taken up together and the Hon'ble NGT Southern Zone, Chennai vide order dated 09.03.2021 directed the committee constituted as per the order dated 06.01.2020 of the Tribunal in application number 259/2017 to ascertain the probable peak period and conduct the ambient air quality study and suggest remedial measure after identifying the source and apportioning the liability of the person who will carry out the remedial measures in an effective manner to curb the air pollution in Cochin. It was also directed to conduct Emission inventory and source apportioning studies in these areas (Thiruvananthapuram, Kollam, Kochi, Alappuzha, Kozhikode, Thrissur, Kasargode, and Kannur districts) so as to ascertain the nature of pollution for a long time and ascertain the source of pollution and then suggest remedial measures to curb the same. The committee met via

google meet on 16.04.2021 and 03.05.2021. Copy of the minutes of the meeting are produced herewith and marked as Annexure R2 (2) and R2 (3) respectively.

In the committee meeting conducted on 16.04.2021, the committee members discussed about the possibilities of conducting and completing the air quality monitoring studies before 14.07.2021. The convenor pointed out the difficulties in conducting the air quality monitoring studies before July 14th as peak status is not expected to achieve and as it's a time consuming process which requires proper planning, execution, financial aid which may take minimum one year duration. The Committee discussed about the time duration likely to be required for carrying out the study and about the cost of carrying out the source apportionment study per city and the source of funding for the same. The committee observed that the source apportionment study will take a minimum of fifteen months' time as it includes monitoring as well as air quality modelling and the cost of study may vary from one to two crore per city which depends upon the factors like size of the city, rate of development in the city etc.

The Committee members then discussed about the points to be considered in finalizing the agencies to conduct the air quality monitoring and modelling. CPCB member, informed that CPCB has already framed a conceptual methodology and framework for carrying out emission inventory/ source apportionment studies. The committee members opined that the agency should have sufficient equipment and sufficient expertise in the field for carrying out the work and should do air quality monitoring covering all major seasons round the year. It was finally decided

to incorporate at least four agencies and request them to suggest their methodologies.

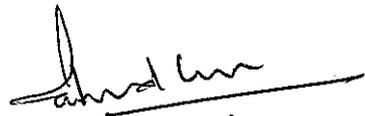
The next committee meeting was conducted via google meet on 03.05.2021. Discussions were held on the proposal shared by the member from NEERI and on the agencies (Viz. IIT madras, NIT Calicut, ARAI, CSIR-NEERI, TERI) suggested by the CPCB member to carry out the source apportionment and emission inventory studies as per CPCB guidelines. The Committee also discussed the criteria to be followed for the selection of agencies with prior experience in the field to carry out the study. NEERI Nagpur, IIT Mumbai, IIT Delhi, IIT Kanpur, ARAI (Automotive Research Association Of India) Pune and TERI (The Energy And Resources Institute) Delhi are some of the organizations having expertise in the field with experience for conducting the study as per the CPCB methodology. As per the suggestions, actions were initiated to get the LoE and project proposals/ project estimate from the above organizations for conducting source apportionment and emission inventory studies for the eight cities.

It is humbly submitted that, source apportionment and emission inventory studies need a lot of resources in terms of funds, manpower, infrastructure and time to cover all seasons for the study. As there is a large financial implication of an approximate amount of minimum sixteen crores with these studies, Kerala State Pollution Control Board/ Govt. of Kerala has to make provisions for the funds and once the funds are earmarked, the source apportionment/ emission inventory studies

in eight cities/ town can be carried out as detailed project activities. Considering the paucity of funds to undertake the source apportionment studies in eight cities together and as none of the cities in the State of Kerala is coming under non-attainment, Kerala State Pollution Control Board is of the opinion to conduct the study in one city in Kochi area in first phase. The committee suggested to include one more city i.e.; Thiruvananthapuram, considering the importance of being the capital city. . Also suggested that time requirement and fund requirement needs to be conveyed to Hon'ble NGT. Also opined that since the study is expensive, the State PCB may not have enough funds for the same and hence may be allowed to seek funds from the CPCB/ State Govt. or any other agency to take the project forward.

In view of the above, the Hon'ble NGT may be pleased to issue direction to carry out the study in one city initially when peak operation is resumed and with CPCB funding which they can make available from any of the fund maintained by them so that the studies can be conducted.

Dated this the 14th day of July 2021.



Bindhu Radhakrishnan

Senior Environmental Engineer

On behalf of the 2nd Respondent in OA no. 259/2017

