

FURTHER REPORT OF THE JOINT COMMITTEE CONSTITUTED BY THE HON'BLE NATIONAL GREEN TRIBUNAL IN O.A. No.:108 OF 2020 (SZ), BASED ON THE FIELD INSPECTION UNDERTAKEN ON 18th AUGUST, 2021, QUALITY OF THE WATER IN THE RIVER/WATER BODIES, PROGRESS/IMPROVEMENTS MADE BY COONOR MUNICIPALITY

Background:

Based on the News Item published on 09.07.2020, in the Vikatan E-Magazine, under the caption "Coonor Misery; Increasing Waste in River Water!- Elephants looking for Good Water", the Hon'ble National Green Tribunal (SZ), took "Suo-Motu", cognizance of the matter, instituted a Joint Inspection Committee headed by District Collector, The Nilgiris District, and ordered to carry-out a Joint Inspection and to file a detailed report. The Joint Inspection Committee caused inspection on 16th September, 2020, and a detailed report was submitted, which was considered by the Hon'ble National Green Tribunal(SZ) during the hearing on 3rd February, 2021. The individual responses were also filed by the District Environmental Engineer, TamilNadu Pollution Control Board, Udthagamandalam and the Commissioner, Coonor Municipality. Subsequently, based on the orders of the Hon'ble National Green Tribunal (SZ), further reports were submitted by Coonor Municipality and by the District Environmental Engineer, TamilNadu Pollution Control Board, Udthagamandalam.

In this context, during the hearing on 8th July, 2021, the Hon'ble National Green Tribunal (SZ), considered the Progress Report filed by the District Environmental Engineer, TamilNadu Pollution Control Board, Udthagamandalam and the Commissioner, Coonor Municipality, and observed that "the time limit that has been provided by the Coonor Municipality is too longer a period. Pollution abatement cannot wait for such a long period" (Para 8), and ordered that:

"10. The committee is directed to inspect the area in question again and submit the further progress and improvement in the water quality after taking samples from the various points and also ascertain as to whether any temporary measures have been provided by the Coonor Municipality to avoid discharge of untreated sewage water into the river and if so, the

temporary measures provided are sufficient to meet the situation till the long term measure is accomplished by them.

11. The Tamil Nadu Pollution Control Board (TNPCB) is also directed to file a detailed further report as to whether the directions issued by the Principal Bench of National Green Tribunal in O.A. No. 606 of 2018 has been complied with by the Coonoor Municipality, if not what is the nature of action taken by them against the Coonoor Municipality.

12. The Coonoor Municipality is also directed to file their progress report for the work undertaken by them to remedy the situation as a short term measures till the long term measure is completed. They are directed to take steps to finalise their estimate and forward the same to the Government for sanction without delay. Once such proposal is received, the Director of Municipalities and Additional Chief Secretary for Municipal Administration and Water Supply are directed to look into the issue and provide necessary support both logistics and financial immediately as the problem of arising on account of pollution caused on river has to be addressed at the earliest possible time.

13. The Coonoor Municipality as well as respective respondents are directed to file their further progress report before this Tribunal on or before **03.09.2021** by e-filing in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per rules.

14. The Registry is directed to communicate this order to the members of the committee, Tamil Nadu Pollution Control Board, Coonoor Municipality, the District Collector, Nilgiri District and also to the Principal Secretary for Environment and the Additional Chief Secretary for Municipal Administration, Director of Municipalities for their information and taking the action in this regard and compliance with the directions issued by this Tribunal. " and posted the matter to 3rd September, 2021.

Therefore, this further Progress Report is filed by the Joint Committee, in compliance of the orders passed in para 10 of orders dated 8th July, 2021.

Joint Inspection Made on 18.08.2021

The Superintending Engineer of PWD/WRD as the Nodal Officer, in consultation with the District Collector, The Nilgiris District and the other members of the Committee, arranged for the Joint inspection on 18.08.2021. In view of her urgent works related to the containment of COVID-19, District Collector requested the Sub-Collector, Coonoor to participate in the Joint inspection. In view of the on-going Assembly Session and the grants for Public Works Department, Water Resources Department, the Nodal Officer has nominated the Assistant Executive Engineer, Bhavani Sagar Basin, and other officials for the Joint Inspection. Similarly, as the District Forest officer, Udhagamandalam, was on transfer, nominated the Range Officer, Coonoor and other Forest Department Officials for the Joint Inspection. The details of officials participated in Joint inspection are:

S. No.	NAME AND DESIGNATION OF THE OFFICER PARTICIPATED IN THE JOINT INSPECTION ON 18.08.2021.
1.	Ms. Deepana Visveswari, IAS, Sub Collector, Coonoor (Representing District Collector, The Nilgiris).
2.	Er. P.S. Livingston, M.E., District Environmental Engineer, Tamil Nadu Pollution control Board Udhagamandalam - Member.
3.	Thiru. T.Krishnamoorthy, Commissioner, Coonoor Municipality, Coonoor – Member
4.	Thiru.S M Sasikumar, Forest Range Oficer, Coonoor Representing District Forest officer, Udhagamandalam
5.	Er. M. Ravi, Assistant Executive Engineer, PWD/WRD, Irrigation Sub-Division, Udhagamandalam-Representing SE/PWD/WRD-the Nodal Officer of the Committee.
6.	Er T Selvaganapathi, Assistant Engineer (a/c), Tamilnadu Pollution Control Board, Udhagamandalam.

7.	Er S. Pongiyappan, Assistant Engineer, PWD/WRD/ Irrigation Section, Coonoor
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The Committee inspected the water sources that are entering in to the Coonoor Town, flowing within the Coonoor Municipal Limits, leaving the Coonoor Municipality and observed their status, status of the sewage generation and disposal by Coonoor Municipality, presence of solid wastes in the water bodies within the Municipal Limits, etc.. The Committee also had detailed interaction with the Commissioner, Coonoor Municipality on the Action Taken, and requested to update on the proposal by the service providers on Sewage Treatment Plant. Samples from the water bodies were also collected by TamilNadu Pollution Control Board, in the presence of the Committee.

Contents of this Report:

The earlier report filed by the Joint Inspection Committee covered in detail about the background of the water bodies that are flowing through Coonoor Municipality, status of sewage generation and management in Coonoor, solid waste management in Coonoor Municipality, situation on throwing of solid waste in to water bodies, etc., and as such those are not repeated in this Report. Therefore, this report mainly focuses on the aspects that the Hon'ble National Green Tribunal (SZ) ordered in Para 10 of order dated 8th July, 2021, such as water quality of the water bodies, based on the samples collected, temporary measures taken by Coonoor Municipality, if any, its efficacy, etc., . The Committee requested the TamilNadu Pollution Control Board, and Coonoor Municipality to file their individual responses/ reports, as ordered by the Hon'ble National Green Tribunal (SZ), vide paras 11 and 12 respectively. It is lerned that such reports are being filed by TamilNadu Pollution Control Board, and Coonoor Municipality.

Samples Collected:

The Joint Committee during its inspection on 18.08.2020, collected samples from the following five locations:

1. Stream near the LPG Crematorium, before the Coonoor Municipal Limits.
2. Stream water within the Gymkhana grounds.
3. Stream water adjacent to Coonoor Municipality Pumping Station at Brooklands.
4. Stream in Krishnapuram within Coonoor Municipality.
5. Coonoor River, at the downstream of Bus Stand.
6. Coonoor River at the down stream of Kannimariyamman Temple.
7. Kallar River at the backside of Runnymedu Railway Station.
8. Stream near Marapalam.

Observations made during the Joint Inspection:

The quality of water that is entering in to the Town is generally without any pollution.

1. The sewage from residential areas is entering in to the water body, within the Town limits.
2. During the inspection of the committee, solid waste is found to be dumpeedd/ thrown in to the water body.
3. The samples collected, including the sample collected within the Town Limits, are free from any objectionable colour or odour.
4. There is sufficient quantity of water-flow in all the water bodies, which facilitates the self rejuvenation/ cleaning of the water body.
5. There is every likelihood that the quality of the Water in the downstream, beyond Runnymedu Railway Station got improved, due to the reason that many streams/ springs from Tea estates are found joining with Kallar River.
6. Even in the stream in Krishnapuram where the residences are located at both banks of and sewage is let in to directly, the stream water is free from objectionable colour or odour.

Results of Samples Collected:

The quality of the water samples collected is described in the following Section, based on the observations made during the sample collection and the results of the samples analyzed at the Laboratories of Tamil Nadu Pollution Control Board.

Appearance: During the collection of the samples, all the samples were found to be clear and colourless. There is no standard prescribed for Colour in respect of Class-D water.

Neutrality: The pH values of the samples are ranging between 7.20 to 7.43, as against the range of 6.5 to 8.5 prescribed for Class-D Water. The samples are meeting the norms prescribed for Class-C waters also.

Mineral Parameters: No standard is prescribed for the Class-D Waters, in respect of the parameters representing the mineral content, viz. Total Dissolved Solids, Chlorides, Sulphates, Fluorides, Alkalinity, Hardness, Calcium, and Magnesium. No standard prescribed for Class-C Waters also in respect of Alkalinity, Hardness, Calcium, and Magnesium. However, the values of Total Dissolved Solids, Chlorides, Sulphates, and Fluorides are meeting the standards prescribed for class – C Waters.

Dissolved Oxygen : One of the important indicators of the biological health of the water is Dissolved Oxygen, and a standard of 4mg/l or more is prescribed for both Class-C and Class-D waters. The samples collected, barring one location, in all the other seven locations are having Dissolved Oxygen values ranging between 5.5mg/l to 7.4 mg/l. At the down-stream of bus stand, the value of Dissolved Oxygen is found to be 1.3 mg/l, which was reported to 6.4 mg/l, during the previous sampling. This may be due to the localized sewage discharges from the huts located in the banks, during the sampling time. It is informed that there are about 110 families are living in that area, and whose sewage is directly let in to the water body. However, the value of Dissolved Oxygen rose to 6.3 mg/l, at the location down-stream of Kannmariyamman temple, which is located at about only 700 meters, and found to be increasing.

Chemical Oxygen Demand: In the case of chemical Oxygen Demand, the values are ranging between 8 mg/l to 48 mg/l as against 8 mg/l to 120 mg/l reported during the previous sampling.

Bio-chemical Oxygen Demand: In the case of Bio-Chemical Oxygen Demand, the values are found to be <2mg/l in seven locations and in one location viz. D/s of

Kannimariamman Temple, it is found to be 5mg/l, . The prescribed standard for Class-D Water is 2mg/l, and in the case of Class-C Waters, it is 3mg/l. The level of 5 mg/l, reported at the D/S of Kannimariamman Temple is attributed to the mixing of untreated sewage from that area, where about 350 to 400 families are living along the banks in huts, within the municipal Limits of Coonoor and also the sewage from the huts are discharged in to water body directly, without any treatment.

Metals: In the case of metals, barring Iron, (such as Copper, Chromium, Zinc, Cadmium and Nickel), no standard is prescribed for Class-D waters. However, the parameters are within the limits prescribed for Class-C Waters. In the case of Iron, the values ranges between 0.1 mg/l to 2.5 mg/l, as against the standard of 0.5 mg/l, for Class-C water. The prevalence of Iron, over and above the standard of 0.5 mg/l, for Class-C water, in seven out of eight samples, could not be understood. However, the Committee requested the District Environmental Engineer to monitor the Iron levels, as to decide whether this is only a temporary phenomenon, or to find out the attributes for the same.

Bacteriological Health : The values of Total Coliform are found to be ranging between 21 to 140 MPN/100ml. No standard is prescribed for the Total Coliforms in respect of Class-D waters. However, these values are found to far below the standard prescribed for Class-C Waters viz. 5000 MPN/100 ml. No standard is prescribed for Fecal Coliforms.

The consolidated report of analysis of the samples collected and analyzed, as received from the District Environmental Engineer, TamilNadu Pollution Control Board, Udthagamandalam, is submitted as an Appendix.

Short Term Measures Taken by Coonoor Municipality:

In maintaining the quality of the water in the water bodies that are flowing through Coonoor Municipal Limits, is impacted by two activities, viz. disposal of untreated sewage in the water bodies and throwing of garbage in to the water bodies. The Commissioner of Coonoor Municipality informed the Committee that an extensive survey and identified 109 establishments, other than household are letting their sewage without treatment. Notices were also issued to them. Because of this effort, 7 establishments have stopped discharging sewage without treatment. The non-availability of sufficient space is the constraint faced to provide treatment and disposal system, such as septic tank and soak pit arrangements.

It is also informed that for the purpose of preventing the dumping of garbage in to the water bodies, which would also prevent the deterioration of the quality of water in the rivers/water bodies passing through Coonoor Municipality, the Joint Inspection Team, during their visit on 18th August, 2021, while visiting the Krishnapuram River, have expressed that the Coonoor Municipality shall ensure that no garbage is dumped in the water bodies and that severe penalty be imposed on the violators. The Commissioner assured to do the needful in this regard.

The Joint Committee submit before the Hon'ble National Green Tribunal (SZ) that no other short term measure has been undertaken by Coonoor Municipality in preventing the entry of untreated sewage entering in to the water bodies.

Action Taken by Coonoor Municipality :

1. Identified 109 commercial establishments are letting their sewage directly in to water bodies, and notices issued to them. Discharge from 7 establishments stopped.
2. Instituted a study the sewage outfalls reaching the water bodies. Estimated the quantity of discharge. Proposal on Chemical Treatment received.
3. Considering the substantial operating cost, decided to have phyto-remediation based treatment. Sought proposal from 2 service providers.
4. A Team from one service provider visited Coonoor, carried out field studies for three days, and assured to furnish report before the first week of September, 2021.
5. The other service provider informed that they would furnish the proposal within three weeks.
6. Coonoor Municipality has completed the remediation of the Municipal Solid Waste Dumpsites.

The Joint Inspection Committee duly considering the submissions made on behalf of Coonoor Municipality on the short term measures taken, is of the

considered opinion that, even though those measures taken are commendable, and are the steps taken in the right direction, in preventing the discharge of untreated sewage entering in to the water bodies, they are of very little or no help in improving the water quality of the water bodies.

Opinion of the Committee on the Time duration for implementing Long Term Measures:

The Hon'ble National Green Tribunal (SZ) posted a categorical question, before the Joint Inspection Committee, as to whether the temporary measures provided are sufficient to meet the situation till the long term measure is accomplished by them, and for the same the Joint Inspection Committee, in the previous para has stated that the impact of short term measures is very little on the quality of water bodies. However, the Joint Inspection Committee, based on the observations made during the Joint Inspection and the quality of water in the water bodies, ascertained through the analysis of the samples collected, the usage of the water in the down-stream, standards for such usages, etc, is of the considered opinion, that no severe adverse impact to the environment would be caused.

Further, the Joint Inspection Committee also of the considered opinion that the completion of the long term measure, viz. providing a sewage treatment plant, with a suitable technology, taking in to account all the odds such as un-favourable terrain, temperate climate prevailing-which is unfavourable for sewage treatment, non-availability of adequate land for providing sewage treatment plants, frequent rainfall the area is experiencing, which would affect the implementation schedule, a time line of at least 9 to 12 months is required.

Considering the pandemic situation, in which the responsibilities of the Local Body is focused mainly towards the containment of the disease and providing all

support system for the treatment of those affected by the pandemic, the steps taken towards providing a sewage treatment system, with a view to ensure that no untreated sewage is let in to the water bodies, and they may be allowed to proceed with and in the event there is some dead-lock, and such circumstance necessary directions be issued by this Hon'ble National Green Tribunal (SZ).

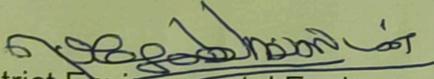
Revised Plan of Action:

Commissioner, Coonor Municipality has informed that they are experiencing delay in receiving the proposals from the service providers, which has resulted in modification/ further delay on the scheme of action proposed by Coonor Municipality and submitted before the Hon'ble National Green Tribunal (SZ). Coonor Municipality, based on the condition as on 31st August, 2021, proposed the following modified Plan of Action, which is submitted for the kind perusal of the Hon'ble National Green Tribunal (SZ):

S. No.:	Activity	Time Line submitted earlier	Present Stage/ Revised Timeline
1	Obtaining the Feasibility of providing Phytoremediation in the beds of the Streams with Cost Estimate	23 rd July, 2021	One expected in 1 st Week of September 2021 and another expected by 3 rd week of September, 2021.
2	Finalizing the Technology	28 th July, 2021	30 th September, 2021
3	Approval of council	First week of August, 2021	Before 15 th of October
4	Submission of proposal to Government for approval	Second week of August, 2021	Before 31 st October, 2021.
5	Completion of the schemes	Nine months from the financial approval for the schemes	Nine months from the financial approval for the schemes

Prayer:

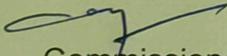
For the reasons elucidated in this report, it is kindly requested that the Honourable National Green Tribunal (SZ) to accept this further Report of the Joint Inspection Committee and the modified action plan of Coonoor Municipality, and pass appropriate orders the Hon'ble National Green Tribunal (SZ) considers deem and fit on the facts and circumstances of the issue.



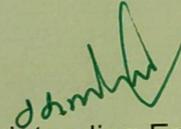
District Environmental Engineer,
Tamil Nadu Pollution control Board
Udhagamandalam - Member



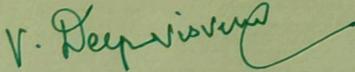
Forest Range Officer,
Coonoor - Representing
District Forest officer,
Udhagamandalam



Commissioner,
Coonoor Municipality,
Coonoor - Member



Superintending Engineer, PWD,WRD.,
Bhavani Basin Circle, Erode - Nodal officer



Sub Collector,
Coonoor,
The Nilgiris District



Collector,
The Nilgiris District,
Udhagamandalam

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