

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

Original Application No. 299 of 2013 (SZ)

With

Original Application No. 164 of 2014 (SZ)

With

Original Application No. 164 of 2015 (SZ)

With

Original Application No. 130 of 2016

In the matter of:

Tribunal on its own motion on the

News item reported in The Hindu Dt. 25.10.2013

About beach at Adyar Estuasry with trash, rubble ...Applicant(s)

And

The Principal Secretary,

Environment & Forests,

Govt. of Tamil Nadu, Chennai & ors. ...Respondent(s)

With

P. Edwin Wilson,

Purasaiwalkam, Chennai ...Applicant(s)

Versus

The State of Tamil Nadu, Rep. by its Chief Secretary,

Chennai & Ors. ...Respondent(s)

With

Jawaharlal Shanmugam,

Thiruvanmiyur, Chennai ...Applicant(s)

Versus

Tamil Nadu Pollution Control Board & ors ...Respondent(s)

With

S. Muthumeena,
Egmore, Chennai

...Applicant(s)

Versus

The Secretary to the Government,
PWD, Secretariat, Chennai & Ors.

...Respondent(s)

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Through

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National Green Tribunal
Southern Zone, Chennai

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STATUS OF RIVER RESTORATION PROJECTS IN CHENNAI

We state that in the respect of the Original Application No. 299/2013, 164/2014, 164/2015 & 130/2016 the issue taken up for consideration by Hon'ble National Green Tribunal (NGT) is the pollution of rivers Adyar, Cooum and Buckingham Canal in and around Chennai in the State of Tamil Nadu.

The Hon'ble NGT (SZ) in its Order dated 28.07.2015 directed the Chief Secretary to convene a meeting once in every two months. From thereon, the Chief Secretary have convened bi-monthly meeting to review the progress of the river restoration projects along with the line department and an Affidavit along with the Minutes of the Chief Secretary review meeting would be submitted by CRRT on behalf of the State of Tamil Nadu.

Later, the case was taken over by the Principal Bench, New Delhi and new Case (OA 556 to 559/2018) numbers were assigned. As per the Order dated 13.2.2019, the Committee headed by Chief Secretary to meet fortnightly for a period of three months and thereafter on monthly basis to review the progress in the matter and quarterly report may be furnished to this Tribunal on the progress in the matter by email at ngt.filing@gmail.com. Thereon, the Chief Secretary has been conducting monthly meeting and thus far filed Eighteen Quarterly reports in Hon'ble NGT, Principal Bench, New Delhi through email in ngt.filing@gmail.com. Last quarterly report was submitted in September, 2023 and the next quarterly report in due course.

Progress of Integrated Cooum and Adyar River Eco-Restoration Project and Buckingham Canal Restoration Project as on 30.10.2023.

Restoration of Chennai's major waterways is a top priority for the Government of Tamil Nadu and to this end, river restoration plans of both Cooum and Adyar rivers have been drawn up and are currently under implementation by various line departments such as Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB), Greater Chennai Corporation, Water Resources Department (WRD), Directorate of Municipal Administration, and Department of Rural Development and Tamil Nadu Urban Habitat Development Board. Chennai Rivers Restoration Trust is entrusted with coordinating and monitoring the projects.

INTEGRATED COOUM RIVER ECO-RESTORATION PROJECT

Work on the sub-projects has been initiated by the concerned line departments and are under various stages of progress as detailed below:

1. Water Resources Department (WRD) :

WRD is entrusted with the implementation of 8 sub-projects viz., desilting the river to enhance free flow of water during monsoon and, formation of baby canal to maintain minimum ecological flow during the non-monsoon season.

- From Chainage 700 m to 9677 m and in northern arm desilting work is completed. In the stretch from Chainage 9677 m to 27336 m, desilting and formation of Baby canal have been completed.
- Within the CRZ stretch i.e., from Cooum river mouth to Napier bridge (Ch.0 m - 700 m), for the continuous opening of river mouth and desilting of the river, CRZ Clearance has been obtained by WRD and construction of training walls is under progress. So far, 92% of work is completed and it is expected to be completed by 31.12.2023.

2. Greater Chennai Corporation (GCC):

GCC is entrusted with the implementation of 4 sub-projects. The work component consist of fencing for a length of 23.92 km on both the sides of the river, removal of 81,364 MT of construction and demolition waste and 23,527 MT of Municipal Solid waste alongside the river and installation of booms at 8 locations to collect the floating waste in the river. The status of the work progress is as follows:

i. Removal of Solid Waste:

The removal of accumulated Solid waste from the banks of the Cooum River is completed.

ii. Installation of Booms:

Trash boom systems have been deployed across the river at 8 locations viz., near C-in-C bridge, Periyar Bridge, Choolaimedu, Metha Nagar, near Central Buckingham Canal, behind Madras Medical College, Quaid-e-Millath Bridge and near Napier Bridge.

iii. Fencing:

Under this project, fencing work has been fully completed for an available work front length of 20.54 km.

3. Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB):

CMWSSB is entrusted with the implementation of 15 sub-projects. The work components of 10 Interception and Diversion systems along the river and 3 Modular Sewage Treatment Plants (STPs) at Chetpet, College Road and Maduravoyal, one 10 MLD Sewage treatment Plant at Langs Garden and one Under Gropund Sewerage Scheme (UGSS) at Nerkundram. Out of 15 sub-projects one Interceptor at NSK Nagar and One Modular STP at Maduravoyal have been dropped.

Out of 13 packages, 11 packages have been completed fully and 2 packages are in progress at various stages as detailed:

i. Interceptor and Diversion pipelines:-

1. Package I (Chintadripet) - 100% works completed.
2. Package II (Chetpet) – 100% works completed.
3. Package III (Nungambakkam) – 100% works completed.
4. Package IV (Metha Nagar) – 100% of works completed.
5. Package V (Anna Nagar) – 100% works completed.
6. Package VI (Langs Garden Road) - 100% of works completed.
7. Package VII (South Cooum River Road) – 100% works completed.
8. Package VIII (Aminjikai) – 100% works completed.
9. **Package IX (NSK Nagar) – Proposal Dropped.**
10. Package X (Anna Nagar) – 100% works completed

ii. Modular Sewerage Treatment Plants:-

- For Modular STP (1.0 MLD) near College Road, Chetpet – 100 % works completed.
- For Modular STP (1.2 MLD) at Nungambakkam – 100 % works completed.
- **For Modular STP (0.6 MLD) at Maduravoyal - Proposal dropped as the existing sewage pumping station, Mogappair east with decanting facility is located within few hundred meters distance.**
- For the 10 MLD STP (TTUF) at Langs Garden, 95% of work progressed – Expected date of Completion of work on 15.12.2023, Testing and trial operations will be commenced on completion.

iii. Under Ground Sewerage System (UGSS):-

- For UGSS Nerkundram, laying pipelines and construction of Sewage Pumping Station works are in progress. 96% of work completed and the remaining works are under progress. It is scheduled to be completed by March 2024.

4. Directorate of Municipal Administration (DMA):

DMA is entrusted with the implementation of 2 sub-projects. The work components consist of removal of accumulated solid waste (1,648 MT) along the banks of the river within Thiruverkadu Municipality limits and fencing for a length of 10.78 km.

- 1,648 MT accumulated solid waste along the banks of the river within Thiruverkadu Municipality limits have been completely removed.
- Fencing has been completed for a length of 8.075 km within Thiruverkadu Municipality. Fencing in the encroached stretch for a length of 965 m will be taken up after the relocation of habitations (i.e. Shanmuga Nagar and Perumal Koil Street, Thiruverkadu) as the cases are pending before the Hon'ble High Court.
- The case related to Perumal Koil Street, Thiruverkadu has been disposed and necessary action is being initiated to relocate the families as per the orders issued by the Hon'ble Court.

5. Commissionerate of Rural Development and Panchayat Raj (CRD & PR):

- The accumulated solid waste (4,582 cu.m) have been removed from the banks of the Cooum river within the DRD areas viz., Senneerkuppam, Adayalampattu and Vanagaram Village Panchayats within DRD limits.
- Fencing works (1.92 km) have been completed in all 3 Village Panchayats viz., Senneerkuppam, Adayalampattu and Vanagaram within DRD limits.

6. Tamil Nadu Urban Habitat Development Board (TNUHDB)

- A total of 14,257 Project Affected Families (PAFs) were identified within the Cooum River boundary under this project. So far, TNUHDB has allotted 13,481 tenements and allotment orders will be issued to resettle remaining PAFs under this project.

- Under ICRERP, 504 tenements are now ready for allotment to resettle the remaining PAFs in Cooum River viz.,
 - Perumbakkam EPIL – 8 units,
 - Thailavaram Phase II (Maraimalai Nagar) – 2 units,
 - Moolakothalam Phase I (Tondiarpet) – 228 units,
 - Moolakothalam Phase II (Tondiarpet) – 266 units.
 - Manali New Town Phase II – 269 units will be ready in December, 2023.

7. Plantation Works in Cooum River under ICRERP:

The status of riverine plantation works in Cooum River taken up under ICRERP within GCC is detailed below:

Plantation Stretch (Total Saplings)	Total No. of Plants Planted	Status of Work
From Quaid-e-Milleth Bridge to Col. Laws Bridge (S.M. Nagar)	14,500	Completed
From Napier Bridge to Quaid-e-Milleth Bridge (Island Ground)	14,300	Completed
From Thaimoogambigai Dental College campus to Padikuppam Burial Ground	5000	Completed
Mogappair Bridge (Rail Nagar) up to GCC limit	16,000	Completed

ADYAR RIVER RESTORATION PROJECT FROM ORIGIN TO MOUTH (ARRP)

Work on various sub-projects of the Adyar River Restoration Project was initiated by all the line departments in 2018 and are under various stages of progress.

1. Water Resources Department (WRD)

Water Resource Department is entrusted with the implementation of 7 sub-projects - desilting and widening the river for 16.18 km; construction of flood protection walls for 1.76 km and river mouth opening and its maintenance. Out of this, 5 sub projects are completed; one project is going on and for river mouth opening CRZ clearance obtained. The work progress is detailed below:

- For the package 1, i.e., desilting of River mouth to downstream of Thiru. Vi. Ka Bridge (1963 m), so far, 85% of work completed and it is expected to be completed by February 2024.

- For package 2, i.e., from Thiru. Vi. Ka. bridge to Kotturpuram bridge (2,353 m) - desilting work is completed.
- For package 3, i.e., from Kotturpuram bridge to Saidapet road bridge (2,892) - , desilting work is completed.
- For package 4, i.e., from Saidapet road bridge to Jafferkhanpet road bridge (flood protection wall for a length of 650 m and desilting for a length of 2,498 m) - Works are completed.
- For package 5, i.e., from Jafferkhanpet Road bridge to Manapakkam Check dam (desilting for a length of 3,334 m and flood protection wall for a length of 500 m) - Works are completed.
- For package 6, i.e., from Thiruneermalai to Outer Ring Road (desilting for a length of 3,000 m and flood protection wall for a length of 406 m) - Works are completed.
- For package 7 (maintenance of river mouth for 4 consecutive years) - CRZ Clearance order received from MoEF&CC. Estimate is being prepared and work will be taken up in May / June, 2024.

2. Greater Chennai Corporation (GCC):

GCC is entrusted with the implementation of 19 sub-projects. The work components consist of boat jetties at two locations, fencing for a length of 24.67 km on both the sides of the river, beautification of bridges and plantations alongside the river course.

- Under this project, out of a total 24.67 km, fencing work completed for an available work front of 14.18 km. New work front identified for 480 m in the relocation sites and a chain link fencing has been completed in this stretch..
- For the trash boom systems which are to be installed at 3 suitable locations across the Adyar River, viz., Kotturpuram Bridge, Maraimalai Adigalar Bridge & Jafferkhanpet Causeway has been completed.
- Regarding the work on beautification of bridges, works has been completed on all the three bridges being maintained by GCC (South Buckingham Canal Bridge near Kotturpuram Railway Station, Thiru. Vi. Ka Bridge and Alandur Bridge) and on one bridge being maintained by State Highways Department i.e., Maraimalai

Adigalar Bridge (Saidapet Bridge). All the bridge beautification works have been completed.

- Park near Kotturpuram - 100% work is completed.
- Formation of Playground and Urban dense forest at Canal Bank Road – 100% works completed.

3. Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB):

CMWSSB is entrusted with Interception and Diversion Pipelines and Modular STPs. out of 10 packages, 9 packages have been completed and remaining 1 package is in progress and the status of works is as follows:

i. Interceptor and Diversion Pipelines:

1. Package I- Adyar & Kotturpuram – 100% works completed.
2. Package III - Nandanam Extension, Turn Bulls Road & Radhakrishnapuram Slum – 100% works completed.
3. Package IV – Mambalam Canal - 100% works completed.
4. Package V - Guindy & Ekkattuthangal – 100% works completed.
5. Package VI – Samiyar Thottam, Jafferkhanpet & MGR Drain – 100% works completed.
6. Package VII – 100% works completed.
7. Package XI – 100% works completed.

ii. Modular STP:

1. Package VIII – 100% works completed (4 MLD Thodhunder Nagar).
2. Package X – 100 % works completed (2 MLD Kotturpuram).
3. **Package XV – Modular STP, Kundrathur (0.8 MLD) Work commenced on 01.07.2022. So far 76% of work completed and it is expected to be completed by March 2024.**

4. Directorate of Municipal Administration (DMA):

DMA is entrusted with the implementation of sub-projects viz., solid waste removal alongside the river, fencing for a length of 3.54 km; community toilet at 1 location and plantation alongside the river.

- Under solid waste removal, 522 MT of garbage been removed and the work was completed.
- The construction of community toilet in Anakaputhur Municipality was completed and opened to public.
- In Anakaputhur Municipality, out of 1.52 km, work completed for 1.32 km and work is in progress for 200 m. The work is expected to be completed by November 2023.
- In Pammal Municipality, out of 5.132 km, fencing works completed for 4.78 km.
- Regarding UGSS for Anakaputhur and Pammal Municipalities – So far 37% of works have been completed on Pammal Municipality. Thus far, 41% of works have been completed in Anakaputhur Municipality. The works are expected to be completed by end of March 2024.
- In Kundrathur Municipality, out of the available work front for 1.2 km fencing has been fully completed.
- In Tambaram Corporation (formerly Thiruneermalai Town Panchayat), out of the available work front of 3.082 km, fencing has been fully completed.
- In Tambaram Corporation (formerly Perungalathur Town Panchayat), out of 5.132 km, work fully completed for 4,862 m and fixing of grill in progress - 350 m. The work is expected to be completed by December 2023.

5. Commissionerate of Rural Development and Panchayat Raj (CRD & PR)

CRD has been entrusted with the implementation of 4 sub projects - solid waste removal alongside the river; fencing for a length of 35.1 km, community toilet and plantation along the river bank.

- Under solid waste removal, 8275 MT of accumulated solid waste along the river banks has been removed and the work is completed.
- In Kancheepuram District, out of the available work front of 18.13 km, fencing has been completed. In Chengalpattu District fencing work is proposed for a length of 11.07 km, out of this, the available work front of 8.8 km, fencing has been completed.

6. Tamil Nadu Urban Habitat Development Board (TNUHDB):

- Out of a total 9,539 Project Affected Families (PAFs) identified within the Adyar River boundary, so far, 4,977 PAFs were resettled in Tamil Nadu Urban Habitat Development Board (TNUHDB) schemes and remaining tenements to resettle 4,562 PAFs will have to be provided.
- In order to resettle the remaining PAFs, TNUHDB will have to provide 4,562 tenements.
 - **1,019 units are ready for allotment:**
 - TT Block, Vyasarpadi - 56 units, Thailavaram Ph I Maraimalar Nagar – 217 units & Ph II, Maraimalar Nagar - 24 units, Navalur, Padapai Kancheepuram - 108 units, Annai Anjugam Nagar Ph I, Tambaram - 17 units, Perumbakkam EPIL – 260 units, Semmencherry - 144 units & Perumbakkam Ph V - 37 units & Ph IX – 156 units.
 - **2045 units by November, 2023:**
 - Kargil Nagar – 1132 units and Perumbakkam Phase III, VI, VIII – 913 units.
 - **1,498 units by December, 2023:**
 - Perumbakkam Phase IV – 384 units and Manali New Town P II – 1,114 units.

DETAILED FEASIBILITY REPORT FOR RESTORATION OF ADYAR RIVER

During the review, the Principal Secretary, MA&WS Department has informed that a Detailed Feasibility Report (DFR) for the restoration of Adyar River in PPP mode by Integrating all restoration work components like river channel improvement, sewage mitigation, solid waster removal etc., to be implemented in 30 months under Hybrid Annuity Model (HAM) in Public - Private Partnership (PPP mode) of 42 km stretch from Guduvanchery Regulator to Thiru. Vi.Ka.Bridge was prepared for effective restoration of Adyar river and emphasized the significance prerequisite to complete the preparatory works before bidding for the project within a specific timeline.

Thereafter, the preparatory works so far carried out in this regard have been presented as detailed below:

- The DFR for the restoration of Adyar River was submitted to Tamil Nadu Infrastructure Development Board (TNIDB) for Project Structuring approval. Subsequently, project structuring and the bid documents were approved by TNIDB on 26.07.2023. Based on the in-principle approval given by the Government on 10.07.2023 and the approval of TNIDB on the project structure and bid document, Tender for fixing the Concessionaire was invited on 27.07.2023, indicating the closing date as 30.11.2023; pre-bid meeting was held on 01.09.2023. 19 bidders including 3 international companies participated. In continuation of pre-bid meeting, site visit was held on 07.09.2023 and clarifications to 423 queries were uploaded in Tender Portal . Subsequently, 16 queries were raised by Bidders and few of which require amendments. The file for the same is under circulation by TNIDB for approval from its Executive Committee.
- Proposal to Governemnt for formation of new company (Chennai Rivers Transformation Company Ltd.) and the Government have accorded administrative sanction and issued order on 03.11.2023. Staff requirement for the Company to implement the project is under consideration of Government.

Restoration of Buckingham Canal & its associated drains and waterways that drains into Cooum & Adyar Rivers

The Government have accorded Administrative Sanction of Rs.1,281.88 cr. for the Restoration of Buckingham Canal & its Drains and Cooum & Adyar Drains vide G.O (D) No. 419, Municipal Administration & Water Supply (MA&WS) Department, dated: 03.12.2020. The steps undertaken to take the project forward is as follows:

- i) WRD stated that the Boundary Demarcation of Buckingham Canal, Mapping of boundary through Differential Global Positioning System (DGPS) and preparation of map for 48 km were completed and fixing of Boundary stones in progress and will be completed by 31.12.2023.
- ii) Boundary Demarcation & DGPS survey – Drains falling into Adyar, Cooum and ‘B’ canal:
WRD: DGPS works completed for Malaipattu Sommangalam drain and work in progress for Thirumudivakam drain. For all other drains, the work will commence after award of the work.
GCC: Boundary demarcation & DGPS for 25 associated drains has been completed.

- iii) WRD stated that a preparation of Rapid Environmental Impact Assessment (REIA) Report for obtaining CRZ Clearance for Buckingham Canal will be submitted to district committee.
- iv) On completion of boundary survey, Joint bio-metric enumeration of Project Affected Families (PAFs) within the Right of Way is to be carried out by WRD and GCC in coordination with Revenue and TNUHDB.

Mitigation of Sewage Outfalls in Adyar & Cooum Drains and Buckingham Canal and its Drains - WRD and GCC have prepared the cost estimates for all the drains entrusted to them and the status of these are tabulated below:

Description of work	Total no. of cost Estimates	Progress as per last meeting
Preparation of cost estimate by WRD for 26 Drains	35	35
Administrative sanction given by CRRT for the cost estimates	35	35
Tendering of works by WRD	35	30
Commencement of work by WRD	35	2
Preparation of cost estimate by GCC for 21 Drains	21	21
Administrative sanction given by CRRT for the cost estimates	21	21
Tendering of works by GCC	21	-
Commencement of work by GCC	21	-

Out of the 29 drains entrusted to WRD, 3 drains were taken up by WRD under their other scheme funds viz., Thanikachalam Drain, Arasankhalani Drain & Chembarabakkam Drain and 23 drains are entrusted to GCC, 2 drains were taken up under their other scheme funds viz., Mambalam Drain and Secretariat Colony Drain. Malaipattu somangalam drains and Thirumudivakkam drain works are in progress. For all other drains, Administrative Sanction been accorded and the works are yet to be started.

Way Forward

Under the sanitation projects in Adyar & Cooum drains and Buckingham canal and its drains, the Managing Director, CMWSSB has informed that

- Notice Inviting Tender (NIT) issued for 52 works (11 nos- I&D and 41 nos - IS) (Rs.755.68 cr.).
- Work order issued for 36 nos. of work (6 nos - I&D + 30 nos IS) for Rs.364.80 cr. (Revised to Rs 385.38 cr).
- Fund received for Rs.191.25 cr. (Rs.63.75 cr. from CMCDM-2020-21 + Rs.40.0 cr. from TNPCB + Rs.87.50 Cr. Budgetary support).
- Revised AS accorded for Rs.385.39 cr. vide G.O (Ms.) No.11, MA&WS Dept. dated: 24.01.2023 in which Budgetary support sanctioned for the year 2022-23 for an amount of Rs. 281.63 cr.
- Proposal for the remaining 27 works for the value of Rs.468.76 Cr. for mitigation of outfalls under budgetary support has been sent to Government for approval on 08.03.2023. The proposal is under the consideration of the Government.

In compliance with the directions of the Hon'ble National Green Tribunal (NGT), Principal Bench, New Delhi vide Order dated 13.02.2019, the Chief Secretary will continue to conduct monthly meetings to review the progress of the river restoration works and to ensure that Chennai's waterways are restored, in keeping with the stated commitment of the Government of Tamil Nadu.

Yours Faithfully

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Date : 30-11-2023


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