

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Original Application No. 299 of 2013 (SZ)
Original Application No. 164 of 2014 (SZ)
Original Application No. 164 of 2015 (SZ)
Original Application No. 130 of 2016 (SZ)

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 Estuary with trash, rubble

.....Applicant(s)

Versus

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

.....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)

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 next 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 Thirteen Quarterly reports in Hon'ble NGT, Principal Bench, New Delhi through email in ngt.filing@gmail.com. Last quarterly report was submitted in May, 2022 and the next quarterly report is due in August, 2022

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

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. Public Works Department (PWD) / Water Resources Department:

PWD / WRD is entrusted with the implementation of 9 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, Administrative Sanction for Rs. 42.00 Crores has been accorded vide G.O (Ms) No.76, Municipal Administration & Water Supply (MC-I) Department, dated 31.07.2020. For this work, CRZ Clearance has to be obtained by PWD/WRD. The proposal was presented in 303th Expert Appraisal Committee held on 20.07.2022. Awaiting CRZ Clearance orders from MoEF & CC

2. Greater Chennai Corporation (GCC):

GCC is entrusted with the implementation of 3 sub-projects. The work components 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 completed for a length of 13.10 km out of total length of 23.92 km and work is under progress in the remaining stretches.

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

CMWSSB is entrusted with the implementation of 15 sub-projects. The work components consists of 10 Interception & 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 Ground Sewerage Scheme (UGSS) at Nerkundram. Work on the 14 sub-projects is in progress as detailed below:

i. Interceptor and Diversion pipelines:

- Package I (Chintadripet) - 100% works completed.
- Package II (Chetpet) – 100% works completed.
- Package III (Nungambakkam) – 100% works completed. The outfalls will be plugged after commissioning of the STP (Nungambakkam).
- Package IV (Metha Nagar) – 100% works completed.
- Package V (Anna Nagar) – 100% works completed
- Package VI (Langs Garden Road) – 100% works completed.
- Package VII (South Coom River Road) – 100% works completed.
- Package VIII (Aminjikarai) – 100% works completed.
- Package IX (NSK Nagar) – Proposal Dropped.
 - CMWSSB informed that the plugging of outfall under this sub-project would be taken up based on the revised survey and may be included under the proposal for plugging of sewage outfalls in Adyar, Buckingham Canal and Coom river basin in Chennai City vide G.O (Ms.) No.107, Municipal Administration & Water Supply (MW1) Department, dated 20.08.2019.
- Package X (Anna Nagar) – 100% works completed.

ii. Modular STPs

- For Modular STP (1.0 MLD) near College Road, Chetpet, 100 % works completed.
- For Modular STP (1.2 MLD) at Nungambakkam, Civil works are under progress and so far, 78.50 % of work completed. The scheduled date of completion is 31.08.2022.
- 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 - Civil works are under progress and so far, 49.50 % of work completed. The scheduled date of completion is 31.12.2022.

iii. Under Ground Sewerage System (UGSS):

- For UGSS Nerkundram, Pipe laying and construction of Sewage Pumping Station works are in progress. 61% of work completed and the remaining works are under progress. It is scheduled to be completed by 31.03.2022.

4. Directorate of Municipal Administration (DMA):

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

- Accumulated solid waste along the banks of the river has been removed within Thiruverkadu Municipality limits.
- Fencing have been completed for a length of 6.7 km within Thiruverkadu Municipality. Further DMA has informed that in the encroached stretch for a length of 1.06 km will be taken up after the relocation of slum habitations (i.e. Shanmuga Nagar and Perumal Koil Street) as the case is pending in Hon'ble Madras High Court.

5. Directorate of Rural Development and Panchayat Raj (DRD):

DRD is entrusted with the implementation of 7 sub-projects. The work components consist of removal of 4582 cubic metre of solid waste alongside the river, fencing for a length of 3.3 km in 3 village panchayats (Seneerkuppam, Adayalampattu and Vanagaram) and plantation at Vanagaram.

- The accumulated solid waste have been removed from the banks of the Cooum river within the DRD areas viz., Senneerkuppam, Adayalampattu and Vanagaram Village Panchayats.
- Fencing works have been completed in all 3 Village Panchayats viz., Vanagaram, Adayalampattu & Senneerkuppam.

6. Tamil Nadu Urban Habitat Development Board (TNUHDB)

Tamil Nadu Urban Habitat Development Board (TNUHDB) is entrusted with the Resettlement & Rehabilitation (R&R) of 14,257 identified Project Affected Families (PAFs).

- So far, TNSCB has allotted 13,256 tenements. To resettle the remaining 1,001 PAFs, 1001 tenements are ready for allotment.

Plantation Works in Cooum River under ICRERP:

The status of riverine plantation works in Cooum River taken up under ICRERP were presented by concerned line departments as detailed below:

Dept.	Total length in its limits (both banks) in km	Total work front available in km	Works taken up in km	Plantation Stretch	Status
GCC	43.28	10.66	4.08	Northern Arm (From Col. Laws Bridge to Napier Bridge)	Tender evaluated. Work order to be issued.
			5.26	Mogappair Bridge to Maduravoyal by-pass	Cost estimate prepared. Tender to be floated.
			1.32	Padikuppam Causeway to Mogappair Bridge	Tender under evaluation

DRD	3.35	3.35	-	Adayalampattu, Vanagaram and Sencerkuppam	DRD, WRD along with CRRT jointly inspected the work front available on 06.08.2022 – jointly decided to take up the work after Dec' 2022 - once WRD completes bund strengthening and clearing of bushes in the 3.35 km
DMA	11.97	10.03	-	Thiruverkadu Municipality	Estimate prepared in line with GGC for 1.5 km (3000 saplings). DMA, WRD along with CRRT jointly inspected the work front available on 06.08.2022 – jointly decided to take up the work after Dec' 2022 - once WRD completes bund strengthening and clearing of bushes in the 11.97 km
	58.6	24.04	10.66		

ADYAR RIVER RESTORATION PROJECT FROM ORIGIN TO MOUTH

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

1. Public Works Department (PWD) / Water Resources Department (WRD)

PWD/WRD 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. The work progress is detailed below:

- For the package 1, i.e., from River mouth to Thiru. Vi. Ka Bridge, PWD has to get CRZ Clearance. The proposal was placed in the 257th EAC meeting held on 05.03.2021, MoEF&CC. The proposal has been deferred and requested to come back after completing the study undertaken by NIOT for sustainable river mouth opening (Package 7).

- The final report from NIOT is expected to be completed by the end of August 2022. On receipt of the final report, it will be submitted to MoEF&CC for obtaining CRZ Clearance.
- 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), NIOT has taken up the multi-seasonal study and the final report is expected to be completed by the end of August, 2022.

2. Greater Chennai Corporation (GCC)

GCC is entrusted with the implementation of 19 sub-projects. The work components consist of boat jetties at 2 locations, fencing for a length of 24.67 km on both the sides of the river, solid waste removal alongside the river, levelling and compacting the solid waste at dumpsite, booms to collect the floating waste in the river, beautification of bridges and plantations alongside the river course.

- Under this project, out of a total 24.67 km, fencing work is in progress for 12.20 km. The expected date of completion is 30.9.2022.

- Under Solid waste removal works, 12,936 MT out of 67,490 MT have been cleared from the river banks. Right now reconnaissance is being carried out to remove the accumulated solid waste from the banks of Adyar river.
- 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 have been completed.
- Regarding the work on beautification of bridges, works have 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.
- Regarding the plantation works along the river stretch from Thiru-vi-ka Bridge to Kotturpuram bridge, 42,929 plants have been planted.
- For the Park at Kotturpuram, 100% works completed.

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

CMWSSB is entrusted with Interception and Diversion pipelines & Modular STPs and the status of works is as follows:

i. Interceptor and Diversion Pipelines:

- Package I- Adyar & Kotturpuram – 100 % works completed.
- Package III - Nandanam Extension, Turn Bulls Road & Radhakrishnapuram Slum – 100 % works completed.
- Package IV – Mambalam Canal - 100% works completed.
- Package V - Guindy & Ekkattuthangal - 100% works completed.
- Package VI – Samiyar Thottam, Jafferkhanpet & MGR Drain – 100% works completed.
- Package VII – Manapakkam and Nandambakkam – 50% of work completed and the scheduled date of completion is 30.6.2023.

- Package XI – So far 50% of work completed and the scheduled date of completion is 30.06.2023.

ii. Modular STP:

- Package VIII – 100% works completed.
- Package X - So far 96% work completed and the scheduled date of completion is 31.08.2022.
- Package XV – Work commenced on 1.7.2022. Soil investigation completed. Design work under progress.

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 17.54 km; community toilet at 1 location and plantation alongside the river.

S. No.	Description of Work	Total	Work Progress	Expected Date of Completion
1.	Pammal Municipality – UGSS	-	19.30 %	August, 2023
1a	Anakaputhur Municipality – UGSS	-	33.50%	August, 2023
2.	Fencing in Tambaram Corporation (Anakaputhur Municipality) Phase-I (1.52 km)	1.52 km	0.63 km completed. Work in progress – 0.89 km. Column raising work is in progress for a length of 430 m.	30.09.2022
3.	Fencing in Tambaram Corporation (Anakaputhur) Phase-II (1.72 km)	1.72 km	Encroachments to be removed to construct fencing (676 PAFs). Necessary action will be initiated to relocate the families as per the orders issued by the Hon'ble Court	

S. No.	Description of Work	Total	Work Progress	Expected Date of Completion
4.	Fencing in Tambaram Corporation (Pammal Municipality) - 0.3 km	-	Fencing not required as WRD has constructed flood protection wall. Hence, the proposal to be dropped.	
5.	Fencing in Kundrathur Municipality (Kundrathur Town Panchayat) – Phase II	1,390 m	Estimate sanctioned and tenders were invited by Town Panchayat. In the meantime, WRD has proposed river widening work in this river stretch as per the instruction of District Collector, Kancheepuram. Hence, the proposal of fencing in this stretch is kept on hold.	
6.	Fencing in Tambaram Corporation (Thiruneermalai Town Panchayat) – Phase II	700 m	500 m - flood protection wall constructed by WRD 200 m - Highways bridge with abatement & retaining wall (both sides) constructed along the river by Highways Department Proposal for dropping sent to CRRT.	
7.	Fencing in Tambaram Corpn. (Thiruneermalai TP-P II)	539 m	WRD has informed that, Adyar river widening work is proposed in this particular river stretch. Hence, the work is not taken up in this stretch	
8.	Fencing in Tambaram Corporation (Perungalathur Town Panchayat)-Phase I	5,132 m	Work completed for 2,132 m	Expected date of completion is 30.08.2022
9.	Fencing in Tambaram Corporation (Perungalathur Town Panchayat) - Phase II (Sasi Vardhan Nagar)	1,000 m	Encroachments to be removed to construct fencing	
10.	Fencing in Tambaram Corporation (Perungalathur Town Panchayat) – Phase III (Samuthuva Periyar Nagar)	1,256 m	WRD has proposed to widen the river at this stretch. Hence, fencing work temporarily kept on hold.	

- Under solid waste removal, 522 MT of garbage have been removed and the work is completed.
- The construction of community toilet in Anakaputhur Municipality is completed and opened to public.
- Plantation in Anakaputhur Municipality - 650 m out of 1570 m in Anakaputhur and 930 m out of 1220 m in Kundrathur completed. Work will be taken up after completion of widening works by WRD.

5. Directorate of Rural Development and Panchayat Raj (DRD)

DRD 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 fully removed.
- In Kancheepuram District, fencing work is proposed for a length of 21.019 km. Out of this, fencing is fully completed for a length of 16.36 km and work is in various stages of completion for a length of 1.87 km. Scheduled date of completion is August, 2022. For the additional proposal in Kundrathur block for a length of 2.923 km, work will be commenced after laying of boundary stone and handing over of site by WRD to DRD.
- In Chengalpattu District, fencing work is proposed for a length of 11.07 km. Out of this, fencing is fully completed for a length of 7.88 km and work is in various stages of completion for a length of 0.87 km. Scheduled date of completion is August, 2022. For the additional proposal of 630 m fencing work in St. Thomas Mount block, work fully completed for 540 m. Work could not be commenced for 90 m as river boundary falls inside the Patta land.

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, 4,462 PAFs were resettled in Tamil Nadu Urban Habitat Development Board (TNUHDB) schemes and the remaining tenements to resettle 5,077 PAFs will have to be provided. It was also informed that 845 tenements (Light

House Project - GHTC) are now ready for allotment. 1,288 tenements (Moolakothalam Phase - II - 648 units & Perumbakkam - Phase-IV & VI - 640 units) and 895 units (Kargil Nagar - 473 units and Manali New Town- 422 units). Remaining 2,049 tenements at Semmencherry - 144 units and 1,905 units in Perumbakkam - Phase-III, VI, VIII & IX will be ready by March, 2023.

Dept.	Total length in its limits (both banks) in km	Total work front available in km	Works taken up in km	Plantation Stretch	Status
GCC	29.50	22.03	2.5	Thiru. Vi. Ka. Bridge to MRTS Bridge (both banks)	Completed. 30,000 saplings of 40 species planted.
			2.2	a. Kotturpuram MRTS to Kotturpuram Bridge (both banks)	Work in progress, a. 12,929 saplings of 40 species planted out of 30,000.
			8	b. Airport Runway to Nandambakkam Bridge (both banks)	b. 3000 saplings of 30 species planted out of 25,000.
			9.33	Kotturpuram Bridge to Nandambakkam Bridge (not contiguous)	Site assessment in various stretches by respective zones is under progress.
DRD	33.53	17.21	-	From Cowl Bazaar to Aadhanur (DRD limits)	CRRT, WRD along with DRD jointly assessed the work front available on 06.08.2022. Only 300 m

					readily available for plantation - Jointly decided to take up the work after Dec' 2022 - once WRD completes bund strengthening and clearing of bushes in the 17.21 km.
DMA	16.97	-	-	Anakaputhur, Pammal, Kundrathur, Thiruneermalai, Perungalathur	650 m out of 1570 m in Anakaputhur and 930 m out of 1220 m in Kundrathur completed. Work will be taken up after completion of widening works by WRD.
	80	39.24	22.03		

Way Forward

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) Boundary Demarcation has been completed for Buckingham for a length of 44.84 km and survey for the balance length of 4km within Chengalpattu Dist. to be initiated by WRD.
- ii) WRD has appointed a consultant on 15.06.2022 for Mapping of Buckingham boundary through Differential Global Positioning System (DGPS) survey and Right of Way (RoW) Map is to be prepared based on the DGPS survey. In this regard, WRD has shared the FMB sketch and Block Maps with the consultant. Digitization of the Block Maps and FMB sketches are under preparation. Reconnaissance survey was completed. Expected to be completed in December, 2022.
- iii) Boundary survey of associated drains to be started by GCC and WRD in coordination

with respective District Administration.

iv) WRD has appointed a consultant for the preparation of Rapid Environmental Impact Assessment (REIA) Report for obtaining CRZ Clearance for Buckingham on 09.12.2021 and is expected to be completed in December, 2022. Now, the preparation of HTL/ LTL maps will be taken up by IRS, Anna University.

v) On completion of boundary survey, Joint bio-metric enumeration of 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

The Government has accorded Administrative Sanction for a total project cost of Rs.2,371 crore for sanitation projects in Buckingham Canal and its drains, Cooum Drains and Adyar Drains. Under Phase-I, sanction was accorded for Rs.1001 crore vide G.O. (Ms) No.107, MA&WS (MW1) Department, dated: 20.08.2019.

Further, the Managing Director, CMWSSB has presented the status of various works taken up under this project. He informed that, out of Rs.1,001 cr. Notice Inviting Tender (NIT) has been called for 52 works (Rs.755.68 cr.); work order has been issued for 36 works at a cost of Rs.364.80 cr. (revised cost - Rs.401.87 cr.) and 12 works are completed. So far, funds for Rs.115 cr. have been sanctioned and budgetary support is required for the balance amount of Rs.286.86 cr. to complete the 36 ongoing works.

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.

(Name & Designation) : Dr.V.Kalaivasan, Project Officer

Authorized Signatory : 

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Yours faithfully

