

CHAPTER IV

ENCROACHMENTS

Houses in the foreshore of Perungalathur Lake



CHAPTER IV

ENCROACHMENTS

The Tamil Nadu Land Encroachment Act, 1905, envisaged continuous monitoring of occupation of Government lands to identify encroachments. As per the Act, encroachment of rivers, streams, *nullah*, lakes, tanks, canals, roads, parks, and all other Government lands including land held by Central and State Government Departments and Local Bodies is totally prohibited. Besides this Act, the Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007 was enacted to protect the tanks under the control of WRD, and to evict the encroachers occupying such land illegally.

Issues such as lack of timely action in preventing encroachment, failures on the part of public authorities to clear illegal encroachments and local bodies which contribute to blocking of waterways are discussed in this chapter.

4.1 Encroachments contributing to the floods

SWP, 1994 emphasised the need to maximise the benefits from the available water resources by removal and prevention of encroachment in water courses and water bodies. GoTN instructed (August 2011) the Regional Chief Engineers of the WRD to take stringent action to evict encroachment of WRD land with the help of police authorities.

An audit comment was made in the Report of C&AG (Civil Audit), GoTN for the year 2005-06, on non-restoration of storage capacity of 525 irrigation tanks. We had pointed out that 40 *per cent* of the test checked tanks were encroached, leading to floods in Cooum and Adyar River during November 2005. The Public Accounts Committee (PAC) of Tamil Nadu Legislature had instructed (June 2014) the GoTN to undertake effective action on restoration of storage capacity of the tanks. Again, in the Audit Report for the year ended March 2013, we had pointed out that 43 *per cent* of the sampled tanks were encroached, indicating ineffective enforcement of the Act for eviction of encroachment.

We noticed that despite highlighting the spate of encroachments in successive Audit Reports, the encroachments were still continuing to pose a grave threat due to inaction of GoTN in removing encroachments. As of October 2016, the percentage of tanks encroached went up to 69, as discussed in **Paragraph 4.2** below.

At a macro level, we noticed that as of 31 March 2016, there were 7,83,767 documented encroachments illegally occupying Government land of 79,649 hectare in the State. The Ministry of Water Resources, GoI, in its submission to the Parliamentary Standing Committee on Home Affairs, stated (August 2016) that encroachment of lakes and river beds played a major role in causing the massive floods in Chennai.

Despite these provisions of the Act and comments in the earlier Audit Reports, efforts made by GoTN and PWD in prevention, identification and eviction of encroachments in the water bodies were not effective as detailed in the succeeding paragraphs.

4.2 Encroachment in tanks

(A) The Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007 was enacted to protect the tanks under the control of WRD and for checking the encroachments besides early eviction of the same. The Act also provided for conduct of survey of the tanks in the State by the Officer nominated by the Revenue Department to determine their limits, demarcate boundaries and initiate action for eviction of encroachment in co-ordination with Revenue Department and police authorities.

The details of the total tanks, tanks surveyed, encroachments identified and evicted in the three districts of Chennai and its suburbs are as detailed in **Table 4.1**.

Table 4.1: Survey of encroachment in tanks

Period	Total tanks under WRD	No. of tanks surveyed	No. of tanks for which boundaries fixed	No. of encroachments identified	No. of encroachments evicted	No. of tanks restored
Up to 31.03.2013	1,540	296	215	16,546	10,083	170
2013-2014	1,540	0	0	0	0	0
2014-2015	1,554	214	222	200	100	0
2015-2016	1,554	41	90	19,168	576	0
Total	1,554	551	527	36,814	10,764	170

(Source: Details furnished by the WRD)

As could be seen from the table,

- Department could complete survey of only 551 out of 1,554 tanks (35 per cent) after the enactment of the Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007. The fixing of boundaries of all these surveyed 551 tanks could not be completed.
- Though, 36,814 encroachments were identified till March 2016, only 10,764 of the identified encroachment (30 per cent) were evicted and only 170 tanks were restored to their original capacity, leaving the remaining 381 tanks (69 per cent) yet to be restored. No tanks were restored during the period 2013-14 to 2015-16.

- Department failed to conduct any survey to identify encroachments and take action to evict encroachments during the year 2013-14 indicating lack of action for removal of encroachments.

(B) Field visit to Perungalathur Big Tank (**Exhibit 4.1**) in Kancheepuram District and scrutiny of relevant records revealed that 279 encroachers had encroached 4.36 hectare of water spread area. WRD replied (October 2016) that efforts were being made for identification and removal of encroachment in coordination with line departments and agencies like Revenue Department, Police Department, Tamil Nadu Slum Clearance Board, etc.

Exhibit 4.1: Encroachment in Perungalathur Big Tank



(Source: Photo taken by Audit team during Joint Inspection)

Thus, despite availability of strong statutory backing and the matter being pointed out in the earlier Audit Reports, majority of encroachments in water bodies continued to thrive without eviction, even after lapse of nine years from the enactment of the Act resulting in non-achievement of objective of preservation of water bodies besides contributing to flooding in Chennai and its suburban areas during December 2015.

Recommendation No. 12: We recommend framing stringent laws to fix responsibility on the officials responsible for non-enforcement of the provisions of the TN Tank Protection and Eviction of Encroachment Act in identifying and eviction of encroachments of any nature.

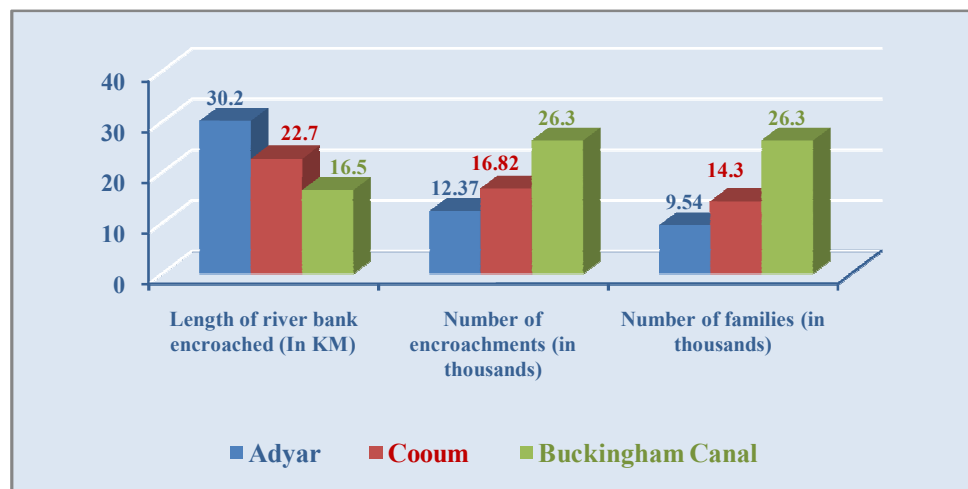
4.3 Encroachment of rivers

Though it is a bounden duty of the Revenue Authorities to protect Government land from encroachments, every year, before monsoon, the Commissioner of

Revenue Administration issues a circular with a checklist to all District Collectors, *inter alia*, directing them to remove all encroachments along water bodies. Despite having statutory powers and clear knowledge and directions on the issue, the Revenue Authorities and WRD had continued to tacitly allow encroachments and failed to remove encroachments.

The details of encroachments in the Adyar, Cooum Rivers and Buckingham Canal available in Chennai and suburban areas, number of encroachment and slum families living on encroached land as of December 2015 are given below:

Chart 4.1: Encroachment along rivers



(Source: Data furnished by Tamil Nadu Slum Clearance Board)

As may be seen from the above, either side of Adyar River bank was encroached to an extent of 30.2 out of 85 km (36 per cent) by 9,539 families. Absence of effective action in eviction of these encroachments resulted in obstruction of the flow of flood water in the Adyar River which caused inundation in the adjoining areas. During Joint Inspection (October 2016) of Accountant General's (E&RSA) Team along with officials of WRD, CE, WRD admitted that at the time of December 2015 floods, 9 out of 12 vents¹ under Maraimalai Adigalar Bridge across the Adyar River at Saidapet were encroached leading to overflowing of the river at Saidapet. We observed during the Joint Inspection that 5 out of these 12 vents were continued to be encroached (**Exhibit 4.2**) by slum dwellers indicating absence of effective steps in removal of encroachments despite huge loss to life and property in the catastrophic floods.

¹ Openings under the bridges which permit flow of water in the river

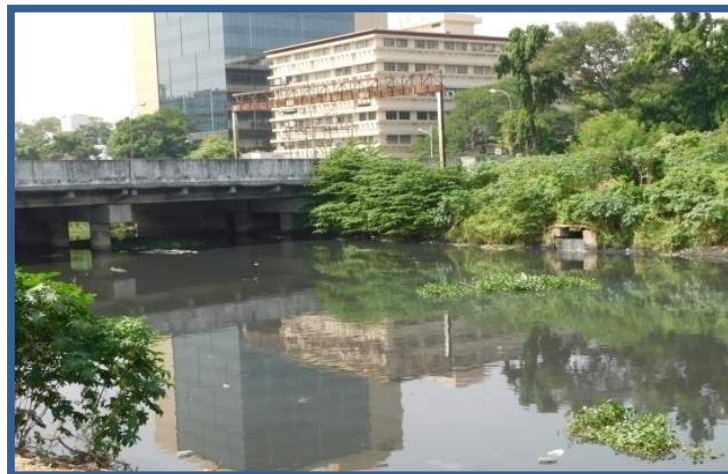
Exhibit 4.2: Encroachments in Maraimalai Adigalar bridge (with blocked vents)



(Source: Photo taken by Audit team during Joint Inspection)

- Along Cooum River, out of the total length of 80 km of the banks, 22.7 km (28 per cent) was encroached by 14,257 slum families and others. We conducted a joint inspection of river bank along with officials of the line departments and found that the slum encroachment along the bund of the river (**Exhibit 4.3**) had reduced the width of its carrying capacity.

Exhibit 4.3: Encroachment along Cooum River



Blocked vent and sewage outfall (Langs Garden)

(Source: Photo taken by Audit team during Joint Inspection)



Encroachment and sewage outfall (Pallavan Nagar)

(Source: Photo taken by Audit team during Joint Inspection)

- Seventeen *per cent* of the banks of Buckingham Canal (16.5 out of 96 km) was encroached by 26,300 families. Joint site inspection of central Buckingham Canal by the Audit team with the departmental officials revealed that encroachers were provided with electricity connection, proper roads, common water supply and ration cards indicating tacit support of the GoTN in helping encroachments. It was also noticed that the sanctioned flood protection works in Buckingham Canal could not be carried out due to existence of encroachments (**Exhibit 4.4**) to an extent of about three km.

Exhibit 4.4: Encroachment in Buckingham Canal



(Source: Photo taken by Audit team during Joint Inspection)

Thus, the encroachment in the rivers and canals had contributed to flooding in slums and also the adjoining areas of the test checked zones of Adyar, Alandur, Ambattur, Kodambakkam and Perungudi. The District Collector,

Chennai (July 2016) stated that encroachment to an extent of 58.58 hectare in Adyar River at various reaches, which contributed to the floods of 2015, were identified subsequent to the floods and boundaries were fixed for 39.28 hectare, leaving boundaries to be defined for 19.30 hectare.

WRD stated (August 2016) that 4,134 families encroaching the banks of Adyar River were evicted through a special drive after the floods of December 2015. The number of families evicted was 43 *per cent* of the encroachments along Adyar River. But, only 397 families encroaching Cooum River were evicted through special drive after the floods, which was negligible in comparison with the total of 14,257 families encroaching the margins of Cooum River.

Chief Engineer, WRD, in the exit conference, expressed that the Department did not possess independent powers for eviction of encroachments in rivers as the Tamil Nadu Protection of Tanks and Eviction of Encroachment Act 2007 did not include rivers. The reply was not acceptable as the Department failed to comply with the instructions of the Government and efforts for demarcation of boundaries and eviction of encroachments could have been made in co-ordination with the Revenue Department.

Recommendation No. 13: We recommend strict enforcement of the TN Land Encroachment Act, 1905 to prevent encroachment and to evict encroachments already taken place.

4.4 Encroachment of water bodies by local bodies

Scrutiny of records in the test checked Municipalities and Town Panchayats revealed that the local bodies had encroached the water bodies, for construction of permanent structures and also as dumping yard, as discussed hereunder:

(i) Peerkankaranai Town Panchayat requested (2004) the District Collector for assigning land for Solid Waste Management (SWM) facility. Without waiting for assignment of land by the District Collector, the Town Panchayat established (July 2005) the SWM facility in a 0.20 hectare plot inside Peerkankaranai Lake (**Exhibit 4.5**). Despite objection on environmental concern by the TN Pollution Control Board, the Town Panchayat constructed (July 2013) a compound wall at a cost of ₹ 20.84 lakh. In reply, GoTN stated (May 2017) that the District Collector had allotted (August 2016) an alternative land for construction of SWM facility and the unit will be shifted soon. We observed that WRD, which is responsible for maintenance of this tank failed in its mandated duties to prevent the Town Panchayat from the callous action of encroaching the water body for solid waste disposal. The failure of District Collector, who took 12 years to identify and assign a suitable land for the SWM facility, also contributed to the degradation of the lake.

Exhibit 4.5: SWM facility inside Peerkankaranai Lake



(Source: Photo taken by Audit team during Joint Inspection)

(ii) Sembakkam Municipality constructed (2006) a compost yard in Sembakkam Lake encroaching an area of 300 square metre. Though SWM activities were discontinued in September 2015, the site still remained encroached (November 2016). Government stated (April 2017) that clearing the dumped garbage from the banks of lake would be taken up under Swachh Bharat Mission component for which administrative approval had been accorded for ₹ 163 lakh.

(iii) Pallavapuram Municipality utilised 40.49 hectare in Pallavaram Big Lake as a dumping yard till June 2015. Even though the SWM activities were discontinued, the damage caused to the lake had not been restored (November 2016). Government stated (April 2017) that the dumped garbage would be disposed by scientific closure method.

We observed that these encroachments of water bodies had reduced the capacity of Peerkankaranai, Sembakkam and Pallavaram Lakes to store water, thereby contributing to inundation in the adjacent areas.

4.4.1 Illegal constructions in water bodies in suburban areas

WRD and local bodies are the custodians of water bodies. Revenue Department is the custodian of Government land and has the power and responsibility to check encroachment of Government land.

Scrutiny of records of Peerkankaranai and Thiruneermalai Town Panchayats and joint inspections revealed that there were encroachments in the water bodies as discussed below:

(a) A colony was developed by Tamil Nadu Slum Clearance Board (TNSCB) to accommodate the slum dwellers from other parts of the city in the Peerkankaranai Chitheri. The Revenue authorities had alienated water body to TNSCB to construct tenements. As per the provisions of the Revenue Standing Orders, in areas where agriculture had ceased to be practiced and the irrigation tanks serving them were under disuse, Revenue Authorities were empowered to hand over the tank bed land for construction activities. We observed that this

provision, granting legitimacy to urbanise tank beds contributed to the shrinkage of water bodies in CMA and contributed to the floods of 2015. We found the above provision was against the stipulations of SMP, according to which construction activities have been prohibited in water bodies.

- (b) Two illegal colonies had encroached upon the tanks viz., Veeraraghavan Eri, Periya Eri and Chitheri in Thiruneermalai Town Panchayat. The local body had provided infrastructure facilities such as roads, lighting and water supply in all the above illegal colonies indicating that the Government agencies were also involved in encouraging illegal colonies and they were working against the declared policy, statutes and instructions according to which illegal colonies and encroachments should not be allowed to exist in the State.
- (c) Four illegal colonies had encroached upon a stream in Perungalathur village for 1.40 hectare.
- (d) Illegal houses had encroached upon an area of a lake in Varadarajapuram village to the extent of 2.40 hectare.
- (e) Five illegal colonies had encroached upon water bodies (Adyar River, Odai and bund) in Anakaputhur village to the extent of 6.03 hectare.

To an audit enquiry, the Executive Officer, Peerkankaranai Town Panchayat replied that as occupants of all illegal colonies inside water bodies in the Town Panchayat were issued with Patta by Revenue Authorities, taxes were collected and basic amenities like roads, street lights and water supply were provided. The Executive Officer, Thiruneermalai Town Panchayat replied (July 2016) that, since these developments were not covered by Patta from the Revenue Department, property tax was not collected for these buildings. He further stated that other amenities such as roads, street lights and water supply were provided in all the areas including areas covered under water body.

Thus, we observed that in these cases of illegal colonies in water bodies, WRD, local bodies and Revenue authorities had failed to prevent the encroachments. Further, the Revenue Authorities and GoTN, applied the provisions of Revenue Standing Orders, with impunity, on disposal of tank bed land of unused irrigation tanks. The RSO being in violation of the provisions of the TN Tank Protection and Eviction of Encroachment Act, 2007, allowed constructions in water bodies thereby endangering the life and property of the people during floods which are being faced frequently in the city, the ill effects of which have been witnessed in the recent floods in 2015 by the State.

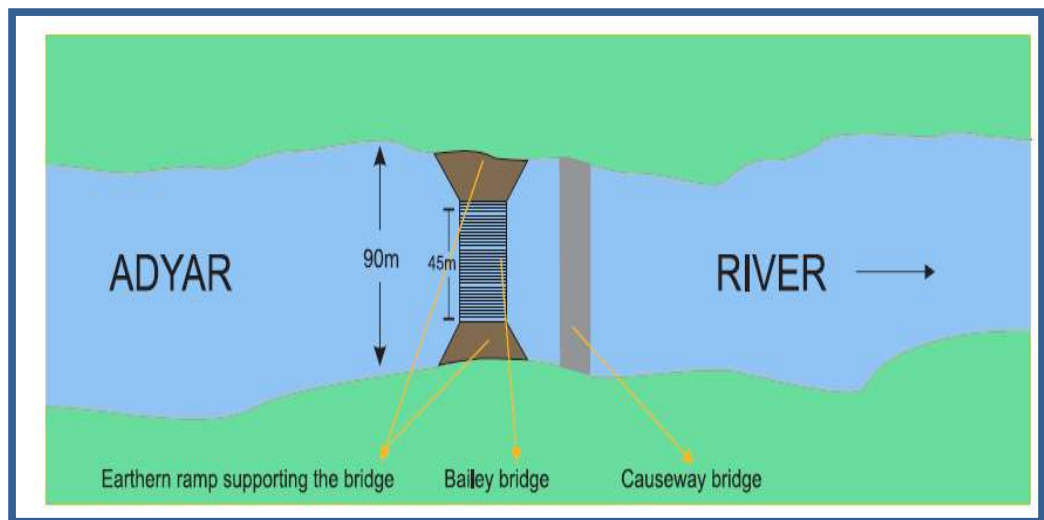
Recommendation No. 14: We recommend that the Revenue Standing Order (RSO) should be amended to make it illegal to dispose of the tank bed land.

4.5 Structural hindrances in Adyar River course

(i) The main campus of the Officers Training Academy (OTA) of Ministry of Defence is located on the northern side of Adyar River at Saint Thomas Mount in Chennai. The training area of OTA is located on the southern side of the river. An existing causeway² across Adyar River served for accessing the training area of OTA from its main campus. The permission sought by OTA for construction of a bailey bridge across Adyar River was rejected (June 2012) by GoTN as it would obstruct the free flow of water in the river and hence not feasible to allow permission. Based on the subsequent request from OTA (June 2012), GoTN accorded permission for construction of bailey bridge for a length of 45 meters (150 feet) on temporary basis. OTA constructed the Bailey bridge for a length of 45 meters with earthen ramps on either side across the Adyar River thereby intruding the water course to obstruct free flow of water.

We observed that while granting permission for construction of Bailey bridge to cover a width of 45 meters, GoTN failed to consider the 90 meters width of Adyar River at that point. As the bridge covered only 50 per cent of the river width, earthen ramps were constructed on either side of the bridge for the balance 50 per cent of the river width, blocking the free flow of the river (**Exhibit 4.6**).

Exhibit 4.6: Ramp of Bailey bridge protruding into Adyar River



(Source: Water Resources Department)

The bridge permitted on temporary basis during June 2012 continued to be operational till December 2015, without any proposal for construction of permanent bridge at the site. The obstructions created by the causeway and the Bailey bridge with earthen ramps, caused overflow of flood water at that point during heavy flow of water in the Adyar River during floods in 2015, thereby inundating Nandambakkam and Manapakkam areas. We noticed that

² A raised road or path to cross a water body which allows water to flow over the structure

the floods had washed away the Bailey bridge and that during joint inspection (October 2016) of the site, it was observed that the damaged ramps of the Bailey bridge were continuing to hinder free flow of water in the river.

Thus, failure of the Government to consider the width of the river while allowing construction of Bailey bridge with ramps across the Adyar River, resulted in inundation of residential areas during the December 2015 floods.

On being asked, Government did not furnish any specific reason for granting permission but stated (March 2017) that efforts would be made to remove damaged portions of the ramp from the river.

(ii) A causeway bridge at Jafferkhanpet, blocking the free flow of water in Adyar River, was not removed though an over-bridge in lieu of the causeway bridge was already constructed by Highways Department and put into use. At the same location, Chennai Metro Rail Limited (CMRL) had constructed a bridge across the river with its three pile caps protruding above the river bed (**Exhibit 4.7**) without obtaining NOC from WRD. We observed that WRD had turned a blind eye to these violations by CMRL, which is also a Government Agency. The existing causeway and the pile caps by CMRL in violation of Government instructions hindered free flow of water in Adyar River resulting in inundation of flood waters in Ekkaduthangal, MGR Nagar, Jafferkhanpet and K.K. Nagar areas.

The Divisional Engineer, Highways Department stated (December 2016) that line Departments had been requested for removal of utilities to enable dismantling of the causeway bridge. Government agreed (March 2017) to initiate action in this regard.

Exhibit 4.7: Metro Rail pile caps and old causeway



(Source: Photo taken by Audit team during Joint Inspection)

(iii) Scrutiny of records of GCC revealed that a 420 metres long high level bridge constructed (December 2009) under JNNURM had encroached upon the river at Guindy Industrial Area to an extent of 15 metres from the boundary of the river, reducing the carrying capacity of the river. GoTN stated (April 2017) that the bridge was constructed according to the site conditions and river boundary available at that time. The reply was unacceptable as the ramp of the bridge was clearly protruding into the river

obstructing its flow as was pointed out by the Chief Engineer, WRD and observed during joint inspection of the site.

(iv) Across Adyar River at Kotturpuram, a high level bridge was constructed in lieu of an old bridge. The old bridge, though not utilised for vehicular traffic, was not demolished. It was being utilised for carrying pipelines of CMWSSB (**Exhibit 4.8**), which acted as barricade to the flow of water and caused afflux of flood waters causing huge inundation in the upstream areas of Kotturpuram.

Exhibit 4.8: Old bridge blocking the free flow of water



(Source: Photo taken by Audit team during Joint Inspection)

We are constrained to record the callous attitude of the WRD in allowing these obstructions in the water bodies which contributed to the 2015 floods.

(v) Airports Authority of India approached WRD (May 2009) and sought NOC for expansion of Chennai International Airport by construction of secondary runway across Adyar River, which also necessitated dismantling recently constructed check dam. The proposal was agreed to by the GoTN and NOC was issued with conditions, *inter alia*, that (i) the construction cost of the check dam i.e. ₹ 3.52 crore be remitted to GoTN account, (ii) Airports Authority should deploy flood safety arrangements on either side of the bridge, and (iii) Airports authority should carry out periodical maintenance including desilting works. The Airports authority constructed (2011-12) the secondary runway. A study (2012) by Anna University indicated that the piles under the runway reduced the width of the Adyar River, thereby increasing the possibility of floods in the nearby areas. The findings of Anna University were proved right as the Airport and the adjoining areas were severely inundated during 2015 flood (**Exhibit 4.9**). During joint inspection conducted by the Audit team along with CE, WRD, it was noticed that the individual pillars supporting the runway, without any wall connecting them, acted as filth accumulators thereby obstructing the free flow of river.

Exhibit 4.9: Flooding of Chennai International Airport

(Source: Airports Authority of India)

We observed that WRD failed to ensure compliance to the NOC conditions relating to flood protection works and periodical maintenance by the Airport authority. GoTN stated (March 2017) that detailed survey would be done to tackle this issue. The reply did not address the audit findings as compliance to NOC conditions should have been monitored continuously by WRD.

4.6 Analysis

Encroachments, a menace, in the path of flood mitigation works, had not been effectively handled by the Government. Though the city is well endowed with several natural lakes and manmade tanks and reservoirs, encroachments reduced their water storing capacity. Local bodies had themselves encroached upon tank beds for dumping of garbage and contributed to pollution and choking of water bodies. Even Government agencies encroached water bodies for developing public infrastructure, unmindful of the damage they caused to flood carrying capacity of water bodies. Encroachment on tank beds and river margins remained unchecked despite TN Land Encroachment Act, 1905 and TN Protection of Tanks and Eviction of Encroachment Act, 2007 are in place to tackle this menace.