

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

APPLICATION No. 273 of 2013 (SZ).

IN THE MATTER OF:

M. Kumaravel,
S/o. Manoharan,
Muttukadu, Tsunami Nagar,
ECR, Chengalpet Taluk,
Kancheepuram District – 603 112.

.. Applicant

Versus

1. The Collector,
Kancheepuram District,
Kancheepuram.

2. District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Maraimalai Nagar, Next to Municipal Office,
Kancheepuram District.

3. Tamil Nadu Pollution Control Board,
Rep. by its Chairman,
Guindy, Chennai – 600 032.

4. The Managing Director,
Tsunami Project Implementation Unit,
Rural and Panchayat Raj Department,
100, Anna Salai, Guindy,
Chennai - 600 032.

.. Respondents

Counsel appearing for the Applicant : Shri M.Nandakumar

Counsel appearing for the Respondents: Shri M.K.Subramanian and
M.R.Gokul Krishnan for Respondent Nos. 1 and 4; Smt. Rita Chandrasekar for
Respondent Nos. 2 and 3.

ORDER

PRESENT:

1. **Hon'ble Shri Justice M. Chockalingam**
Judicial Member

2. **Hon'ble Shri P.S.Rao**
Expert Member

Delivered by the Hon'ble Bench dated, 10th October, 2015.

1. Whether the judgment is allowed to be published on the Internet. Yes / No
2. Whether the judgment is to be published in the All India NGT Reporter. Yes / No

1. The applicant has filed this application with a prayer to direct the respondents to prevent the environmental degradation caused due to open defecation by the fishermen community at Muttukadu Tsunami relief tenements located in S.F.No.97/3, Muttukadu Village, Kancheepuram District and to construct an Effluent Treatment Plant (ETP) to treat the effluent being discharged from the bathrooms and latrines (with just soak pits without any drainage system) in order to prevent ground water pollution and to maintain hygienic conditions in the said area and to prevent communicable diseases.

2. The brief facts of the case as surmised from the application are that after the onslaught of tsunami in the year 2004, the State Government decided to build *pucca* houses for the tsunami victims of Karikattukuppam Village, Kancheepuram District and about 500 residential tenements measuring about 300 sq.ft each, were built and provided with lavatories and bath rooms. But no ETP was constructed by the State Government for treating the effluents discharged from the bathrooms and lavatories and only soak pits were provided for each latrine which was bound to pollute the ground water as drainage or sewage facility was not provided and Muttukadu village as such has got no sewage facility. Soon after occupying the tenements most of the latrines were converted into store rooms or bed rooms and the inhabitants started defecating in the open in and around the Muttukadu Lake and also started taking bath in open leading to acute stench and environmental degradation in the said area. The well water has become polluted due to such activities and the inhabitants are also consuming the same highly polluted water.

3. The applicant issued notice dated 02.07.2012 to the Respondents 1-3 to take urgent steps to prevent defecation in the open and to put up an ETP but they had not even acknowledged the receipt of the notice. The World Bank was willing to allocate funds for the construction of ETP for the villagers but the respondents did not pursue the matter and the scheme got lapsed. The applicant filed Public Interest Litigation in W.P. Nos.22450 and 22451 of 2012 before the Hon'ble High Court of Madras and by an order dated 08.10.2012 the writ petitions were disposed by holding as follows:

“Considering the facts and circumstances of the case, without going into the merits of the case, we dispose of the Writ Petitions with a direction to respondents 2 & 3 and take appropriate action in accordance with law”.

4. The 2nd respondent addressed the 4th respondent *vide* a letter dated 22.11.2012 for taking necessary action and to furnish an action taken report at the earliest. Even though more than a year has passed no action was taken by the respondents to provide ETP to treat the sewage being discharged and the ground water in Muttukadu Village continued to be polluted. The applicant by a notice dated 23.08.2013 addressed the respondents 2 and 3 to call upon the 4th respondent to furnish a copy of the action taken report within 1 week failing which contempt proceedings would be initiated against the respondents 2 and 3. The respondents received the notice but not responded. The 3rd respondent is the authority who is vested with powers under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 to prevent, control and abate water and air pollution but under the directions of the 3rd respondent, the 2nd respondent purportedly has instructed the 4th respondent for taking up action. It is clear that the 2nd and 3rd respondents have abdicated their duties and the open defecation still continues and this is a cause of concern.

5. The 1st respondent's reply which is also adopted by the 4th respondent states that under Rajiv Gandhi Rehabilitation Package (RGRP) scheme (NGO backed-out sites) 262 houses were constructed in S.F.No.97/3 of Karikattukuppam village of Muttukkadu *Panchayat* and handed over to the beneficiaries in December 2009. As per the sanctioned estimates, Septic tanks with soak pits were provided to all the houses constructed and there is no necessity of providing ETP to individual houses. The septic tank, consisting of cement plastering on all sides and at the bottom, prevents the waste discharged from the latrines from polluting the ground water. Further, necessary water supply is provided by the Village *Panchayat* from an Over Head Tank with pipeline arrangements. As such, the question of ground water pollution in the absence of ETP does not arise. Moreover, the total population of the village is only 1320, therefore providing an ETP is not necessary and hence individual septic tanks have been provided. Furthermore, providing ETP is not possible as the plant is necessary only for large scale industries which are having common drainage system. The respondents deny the statement of the applicant that the World Bank was willing to allocate funds for the construction of ETP as no such proposal was sent to the World Bank.

6. The 2nd and 3rd respondents, Tamil Nadu Pollution Control Board (TNPCB), in their reply have put forth that the petition dated 02.07.2012 submitted by the applicant was forwarded to the Executive Engineer, Tsunami District Implementation Unit, Kancheepuram, *vide* a letter dated 30.08.2012 for taking necessary action as the said project was under the control of the aforesaid Executive Engineer. The Hon'ble High Court of Madras in its order dated 08.10.2012 has directed the TNPCB to take appropriate action on the petition of the applicant. Therefore, the 4th respondent was addressed *vide* letter dated 22.11.2012 for taking necessary action and they have replied *vide* a letter dated 24.12.2012 stating that the construction of houses under Tsunami Rehabilitation

Project in Kancheepuram District has been completed and each house has been provided with a toilet and septic tank. Further, it was informed that the tsunami project implementation unit is to be wound up on 31.12.2012. Therefore, the District Collector may be contacted for further action. The 2nd and 3rd respondents finally stated that upon the receipt of report of the Project Co-ordinator, Tsunami District Implementation Unit, Kancheepuram, it is inferred that the installation of ETP may not be required for treating the sewage generated from the said houses as each individual house has been provided with a septic tank along with soak pit arrangement.

7. Disputing the averments made in the reply of the 1st respondent, the applicant filed rejoinder stating that the so called Septic tanks built with cement plastering cannot be termed as Septic tanks in the strict sense and due to lack of sewage treatment system there is acute ground water pollution in the area and in more than fifty percent of the houses toilets have been converted into store rooms and the 1st respondent failed to address this problem and has not mentioned anything about it in his reply.

8. During the course of hearing of the case on 27.03.2014 a direction was issued to the Project Director, District Rural Development Agency (PD, DRDA), Kancheepuram District to inspect the site in question and submit a status report since it was reported that the 4th respondent, Tsunami Project Implementation Unit has been wound up. Accordingly, the PD, DRDA conducted inspection of the site on 06.06.2014 and filed the report on 13.10.2014 stating that maintenance of the buildings is vested with the beneficiaries itself. Hence any repairs to septic tanks, sewage pipelines etc. have to be carried out by the beneficiaries themselves. However, as the factual position submitted by the respondents was disputed by the counsel for the applicant it was felt necessary to appoint an Advocate

Commissioner to make an inspection of the site after giving notice to the parties and accordingly, orders were issued on 03.12.2014 appointing the Advocate Commissioner.

9. After serving notice to all the concerned, the Advocate Commissioner conducted the site inspection on 14.01.2015 in the presence of the representative of the applicant, officials of the Muttukadu *Grama Panchayat*, Local Block Development Officer, concerned Assistant Environmental Engineer of TNPCB and advocate representing the respondents 1 and 4. In his inspection report, the Advocate Commissioner stated that the settlements built in S.F.No.97/3 of Karikattukuppam Village of Muttukadu *Panchayat* Union in an area of about 7 acres comprises neatly laid rows of houses each consisting of a ground floor and first floor and in all, there are 262 units grouped into 131 blocks. His report indicates that some of the inhabitants of the houses have converted the toilets/ bathrooms into store/ pooja rooms and occupants of many units have constructed toilets outside their houses in open area adjacent to each unit. To verify the existence of Septic tanks the Advocate Commissioner inspected one house and found a Septic Tank measuring 3.7 m in length, 1.6 m in breadth and 1.8 m in depth was existing. He also observed that the construction of individual Septic tanks by the occupants is going on in some units. However, for clarity, the observations made by the Advocate Commissioner are reproduced below:

- a) *“The tenements are built over 7 acres of land divided into several streets and neatly accommodated in a row of houses comprising ground and first floor each measuring about 300 sq.ft.*
- b) *Most of the occupants have utilized the toilets/ bathroom area originally provided into storage area.*
- c) *Many occupants have utilized the space provided in their units for toilets into store/ pooja rooms. However, I could find that in most units toilets have been constructed outside the main building in the open space adjacent to the units.*
- d) *Septic tanks and soak pits are found on the rear side of the units.*

- e) *There is an area next to the compound wall of the property situated on the south eastern side measuring about 25.5 metres in width and 120 metres up to the backwaters. There is an abandoned well and pump room in the said area.*
- f) *The tenements look like a typical housing colony consisting of several streets with concrete roads and street lights.*
- g) *The original construction of the unit has undergone a lot of modification. Construction has been made in the open space in the front side of the units where septic tanks had been originally built.*
- h) *In some units, septic tanks are also under construction.*
- i) *I found traces of open defecation close to the backwaters on the south eastern side adjacent to the 60 ft. road. It is difficult to conclude from what I found that the majority of the occupants in the colony have been indulging in open defecation.*
- j) *In the backwaters, I noticed installation of fishing equipments.*
- k) *The colony has a fair price shop and a community hall presently utilized for housing a school.*
- l) *The colony is bound on the northern side by vast extent of lands presumably belonging to the Tourism Department that remain unutilized where large amount of garbage and waste have been strewn around.*
- m) *The Panchayat does not appear to be monitoring the additional construction or other developments made in the area apparently without any permission from the concerned authorities like Muttukadu Village Panchayat.*
- n) *On enquiry I learnt that no property tax is being paid in respect of the buildings in the location.”*

The Advocate Commissioner also made certain suggestions in his report which are reproduced below:

“i) Since the colony housing the tsunami units are fully developed with concrete roads and separate septic tanks/ soak pits for each household, installation of a STP at this stage may not be practical in the absence of a common drainage system and sewers to carry the waste water. This suggestion is based on my inspection where I found that majority of the units have toilets and open defecation was noticed only in the South eastern side. This suggestion is however subject to technical aspects that may be considered by the experts.

ii) To prevent any open defecation in the South East area, one or more toilet complexes for the use of the occupants of the Tsunami tenements can be constructed in the following places:

a)The area on the northern side next to the community hall and fishing net platform which is lying underneath with waste and all

kinds of rubbish thrown around. However, this area is represented to be belonging to the Tourism Department.

b) The area on the South Eastern side adjacent to the 60 feet road where open defecation was found and which is situated next to the private compounded property. However, the occupants of the tenements have raised objections for construction of a Toilet complex in this location as it is closer to backwaters where fishing activities are going on, on a day to day basis and the land is being utilized for preparation of fishing nets. This suggestion of constructing a toilet complex was put to Mr.G.Shankaran, Assistant Engineer, Thiruporur Panchayat Union and said the same was technically feasible in the said area by installing septic tanks/soak pits.

10. Except on one or two points of suggestions such as construction of common toilet complex and the status of lands located adjacent to the tenements, the 1st respondent in his memo of objections to the Advocate Commissioner's report, filed on 09.07.2015, has concurred with the report of the Advocate Commissioner and stated that since majority of the inhabitants are already having toilets and being put to use, it is not only not practical but also not required to have a Common Effluent Treatment Plant (CETP) more so in the absence of a common drainage system in the area. The applicant also filed memo of objections on the report of the Advocate Commissioner stating that the Advocate Commissioner failed to go into the details of the construction of Septic tanks and soak pits and their functioning which as per the applicant, are not scientifically designed and are not able to prevent pollution of ground water since there is a seepage from the Septic tanks and soak pits into the sub-soil layers. He also differed with the Advocate Commissioner that there is no necessity of having ETP and stated that in the absence of proper septic system the only remedy to prevent ground water pollution is to have a Common ETP.

11. After going through the record placed before us and having heard the parties and having perused the report of the Advocate Commissioner, it emerges

that a well designed rehabilitation centre for the victims of tsunami has been established in the Karikattukuppam Village of Muttukadu *Panchayat* under the Tsunami Rehabilitation Project by the State government with well laid cement roads, street light system and with a provision for supply of piped drinking water and also with an environment friendly individual sewage disposal system by building toilets for each house with a mechanism to dispose the sewage by constructing septic tank and soak pit. But it is unfortunate that some of the beneficiaries have converted the toilets for other purposes and resorting to open defecation adjacent to the Muttukadu Lake thus causing pollution. Therefore, the main contention of the applicant that because of lack of Sewage Treatment Plant (STP) there is pollution in the area does not have any merit. It is always not possible to establish an elaborate sewerage system and have a common STP particularly in rural areas and small towns and even in some suburbs where a small scale STP in the form of septic tank can meet the requirement. It was brought to our notice that even in some urban and semi urban centres which are densely populated, sewer lines and STPs are not built because of lack of sufficient funds and other impediments.

12. Septic systems are a type of on-site sewage facility. Well designed septic system will ensure a fool proof and environment friendly disposal of sewage where elaborate drainage/sewer system is not possible to build and establish a common STP in rural areas and settlements where households are limited in number with a small extent of population. The term 'septic' refers to the anaerobic bacterial environment that develops in the tank which decomposes or mineralizes the waste discharged into the tank. The other component of the septic system is the drain field or soak pit. The soak pit which is also known as soakaway or leach pit is a covered porous-walled chamber that allows water to slowly soak into the ground. As the grey water percolates through the soil from the soak pit, small particles are

filtered out by the soil matrix and organics are digested by microorganisms. Soak pits are best suited for soil with good absorptive properties and the site in question has got such properties. A well designed and maintained concrete septic tank can last for a long period provided regular maintenance is taken up by periodically removing the solids that remain settled in the tank. How often the septic tank is to be emptied depends on the volume of the tank related to the input of solids. A properly designed and normally operating septic system is odour free. Therefore, a properly located, designed, constructed and maintained septic system does not pose any environmental/pollution problem and is an excellent alternative to the common STP in the rural areas. When a fool proof septic system is installed in each of the houses there is no necessity for establishing common STP in the settlement in question which is having limited population. Where the septic tanks function properly there is no need of construction of an expensive sewer/drainage system and to go for a centralized STP more so in such localities such as Muttukadu Tsunami relief tenements. But, here the point to be stressed is that first the toilets should be put to use by the inhabitants making them to desist from open defecation and the septic system attached to each toilet should be well maintained and made to function perfectly so that the issues raised by the applicant are taken care of and the chances of ground water pollution are eliminated.

13. Unfortunately in spite of providing such well laid out settlement colony with good civic infrastructure including individual toilets, the inhabitants still prefer open defecation. This is more an issue concerned with the behaviour, attitude, social and cultural practices of the inhabitants rather than an environmental issue. However even if the people are educated and motivated to utilize the toilets and desist from open defecation, if the individual septic systems are not well designed, not maintained and not made to function properly it will definitely lead to degradation of environment particularly water pollution. Here, in

this case building an elaborate sewage system and construction of common STP is not the solution. Properly maintained and located septic tank system does not pose any environmental problems than the centralised sewage treatment. Definitely the densely populated cities, towns deserve priority for establishing sewerage system with a common STP rather than small settlements such as Muttukadu Tsunami relief tenements having limited population who have been provided with individual toilets. It is not only the duty of the State but also the duty of every citizen to maintain hygienic environment. Further, no material evidence has been produced before us to substantiate the allegations of causing pollution in the area. In the above circumstances we feel that we can dispose this application by giving the following directions:

- i) The District administration shall constitute a team consisting the local *Grama Panchayat*, Revenue and *Panchayati Raj* Department officials including a Civil Engineer and the concerned Assistant Environmental Engineer of the TNPCB to conduct door to door survey, inspect the toilets and septic systems and find out their functioning and identify the steps required to be taken to address the defects if any and modify/rebuild the units wherever required by tapping funds under relevant schemes particularly under the ongoing '*Swacch Bharat Abhiyan*' where lot of emphasis is being laid for hygiene and sanitation.
- ii) The District administration shall monitor and ensure that the local *Grama Panchayat* makes the inhabitants use the toilets and that all the septic systems function normally and there is no seepage of sewage or discharge causing ground water pollution.
- iii) There should be constant interaction with the inhabitants and awareness has to be created on the perils of open defecation. They should be persuaded

to desist from open defecation and the toilets must be put to use. In this regard, assistance of local NGOs, Self Help Groups and volunteers may be taken besides offering incentives and linking the beneficiary oriented programmes implemented by the District administration with the sanitation drive. The administration should organise focussed programmes like street plays, awareness programmes, media campaigns etc. to educate the inhabitants about the importance of sanitation and the indirect cost incurred by them from neglecting sanitation in the form of ill-health, loss of work and cost towards medical treatment. The applicant who is one of the beneficiaries and who belongs to the same fishermen community and who is concerned with the environment shall also participate in the programme and educate his fellow inhabitants to put the toilets to use and desist from open defecation.

iv) There should be a system of periodic collection and analysis of samples of both underground water as well as the adjacent surface water bodies by the TNPCB followed by ameliorative measures, if required to be taken by the local *Grama Panchayat* under the guidance of the District administration particularly the District Rural Development Agency.

14. With the above directions, we dispose of this application. No costs.

(Justice M. Chockalingam)
Judicial Member

(Shri P.S. Rao)
Expert Member

Chennai.
Dated, 10th October, 2015.