

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH AT CHENNAI

ORIGINAL APPLICATION NO. 34 of 2015 (SZ)

IN THE MATTER OF:

S. Pugazhendi & Ors.

...Applicants

Versus

Union of India & Ors.

...Respondents

**WRITTEN SUBMISSIONS FILED ON BEHALF OF THE APPLICANTS DATED 18-
1-2021**

MOST RESPECTFULLY SHOWETH:

1. That the above titled Application was filed under Section 14 of the National Green Tribunal Act, 2010 raising substantial questions related to environment defined under Section 2 (m) of the Act where the community at large is affected due to the continuing pollution and contamination of water sources by the industries operating in SIPCOT, Cuddalore, Tamil Nadu. The residents in the SIPCOT Cuddalore have been suffering from hazardous water quality due to chemical contamination along with rapidly falling water tables, caused due to the inadequate and improper infrastructure of the industries operating in this Chemical Industrial Complex.
2. That the constant pollution and contamination of the water bodies as well as ground water caused by these industries not only puts human health at serious risk but also amounts to gross violation of the Environment (Protection) Act, 1986 and the Water (Prevention and Control of Pollution) Act, 1974. Thus, the petition also seeks remediation of the environment under Section 15 and 20 of the National Green Tribunal Act, 2010.
3. That the Applicants have specifically sought directions with respect to time



bound independent assessment of the extent of environmental damage as well as plan for restoration and remediation of the groundwater which is admittedly contaminated due to the industrial activities by the member Industries of SIPCOT Cuddalore. It is submitted that until then, there must be a moratorium with respect to expansion and setting up of new industries, so as to prevent further environmental damage. The Applicants had also sought directions for prosecution of the responsible officers of the TNPCB who have not taken any action against the violators under the provisions of the Water (Prevention and Control of Pollution) Act, 1974.

4. That the Hon'ble Supreme Court in the matter of *A.P. Pollution Control Board II v. Prof. M.V. Nayudu*, reported in (2001) 2 SCC 62 has held that the fundamental objective of the Water (Prevention and Control of Pollution) Act, 1974 is "to provide clean drinking water to the citizens". Thus, applying the precautionary principle, the Hon'ble Court had issued strict directions by not allowing a polluting industry come up in close proximity to the Hussain Sagar and Osam___ Sagar lakes which are the source of drinking water for the cities of Hyderabad and Secundarabad. Thus, the Court held as follows:

"64. In respect of these drinking water reservoirs which cater to the needs of about 70 or 80 lakhs population, we cannot rely upon a bare assurance that care will be taken in the storage of serious hazardous materials. Nor can we rely on an assurance that these hazardous substances would be effectively removed without spillage. It is, in our view, not humanly possible for any department to keep track whether the pollutants are not spilled over. This is exactly where the "precautionary principle" comes into play. The chance of an accident, within such close proximity of the reservoirs cannot be ruled out, as pointed out in the reports. Thus, we are led to the inference that there is a very great risk that these highly hazardous materials could seep into the earth and reach the tanks, after passing through the dolerite dykes, as pointed by the National Geophysical Research Institute. Our inference from facts and the reports is that of a reasonable person, as pointed out in the main judgment in A.P. Pollution Board v. Prof. M.V. Nayudu [(1999) 2 SCC 718].



65. On the basis of the scientific material now obtained by this Court from three highly reputed sources, this is certainly not a fit case for directing grant of NOC by the Pollution Control Board. It is not also possible to hold that the safeguards suggested by the appellant Board – pursuant to the direction of the Government dated 3-7-1997, will be adequate, in the light of the reports. We therefore hold that in the facts of this case, the Board could not be directed to suggest safeguards and there is every likelihood that safeguards could fail either due to accident, as stated in the report, or due to human error. We, therefore, hold on Point 3 against the 7th respondent Industry.”

5. In the present case, the large scale and continuous contamination of the surface and ground water sources by the SIPCOT industries have adversely affected the right to clean drinking water to the communities living in and around the SIPCOT area in Cuddalore.

GROUNDWATER AND SURFACE WATER CONTAMINATION IN SIPCOT REGION

6. That even though the above titled Application was filed in 2015, with several documents which showed that the groundwater in the entire Cuddalore area is contaminated with presence of heavy metals. The Applicants have brought on record several studies which show high levels of heavy metal contamination due to the operation of chemical industries within SIPCOT and discharge of untreated effluents. (See Annexure A-3 at pages 54 to 63 of the Application)
7. Over the course of the proceedings, there have been several reports of the TNPCB which have also confirmed presence of heavy metals in the ground water in the area in question. However, till date there has been no assessment of the extent of damage and no time bound remediation plan has been prepared. The following findings of the TNPCB are critical:-
 - a) Reply dated March 2015 (at page 85-105 of the record):
 - Groundwater Details for 2010-2011 @93- lead parameters exceeding amongst other pollutants.
 - b) Affidavit dated 29.09.16 in compliance of NGT order dated 7.09.2016- at page 140-146 of the record)
 - Lead in all samples, and Iron in 1 exceeding parameters-@ 142-143



- c) Reply dated 15.11.2016 (at pages 176-183 of the record @181) –
 - Lead, Iron and Nickel exceeding.
- d) The findings reiterated in Reply dated 18.7.18 (at pages 410-414 of the record)
8. That even the joint committee report dated 11.11.2019 filed before this Hon'ble Tribunal has found Nickel and Copper levels exceeding in respect of certain industries (see observation no. b at page 13 of the report of the Joint Committee). It may be noted that the Joint Committee had only taken samples and tested them against the TNPCB standards and not against the BIS drinking water standards. **Even in such a case, it did find high levels of Copper and Nickel as well as trace levels of heavy metals.** (Emphasis Added) Thus, it is clear that there is definitely a problem of continuing contamination. **It may be noted that despite there being a clear direction of this Hon'ble Tribunal to take samples from surface water bodies and low lying areas, the Joint Committee took samples from very deep borewells which may not reflect the extent of actual damage and contamination to the low lying aquifers in Cuddalore.** (Emphasis Added)
9. Thus, it is clear that there is a serious issue of continuing contamination of water resources in Cuddalore due to the activities of the chemical industries within SIPCOT.
10. That it is submitted that in the matter of *AP Pollution Control Board v. Prof. MV Nayadu*, reported in (1999) 2 SCC 718, the Hon'ble Supreme Court has clearly expounded that in matters relating to environmental pollution, the burden of proof is reversed, thus, it is upon the polluter to prove that there is no pollution being caused due to its activities. The relevant part of the judgment is reproduced hereunder:
- "37. It is to be noticed that while the inadequacies of science have led to the "precautionary principle", the said "precautionary principle" in its turn, has led to the special principle of burden of proof in environmental cases where burden as to the absence of injurious effect of the actions proposed, – is placed on those who want to change the status quo [Wynne, Uncertainty and Environmental Learning, 2 Global Env'tl. Change*

*111 (1992) at p. 123]. This is often termed as a reversal of the burden of proof, because otherwise in environmental cases, those opposing the change would be compelled to shoulder the evidentiary burden, a procedure which is not fair. Therefore, it is necessary that the party attempting to preserve the status quo by maintaining a less polluted state should not carry the burden of proof and the party who wants to alter it, must bear this burden. [See James M. Olson: "Shifting the Burden of Proof", 20 *Envtl. Law*, p. 891 at p. 898 (1990).] [Quoted in Vol. 22 (1998), *Harv. Env. Law Review*, p. 509 at pp. 519, 550.]*

38. The precautionary principle suggests that where there is an identifiable risk of serious or irreversible harm, including, for example, extinction of species, widespread toxic pollution in major threats to essential ecological processes, it may be appropriate to place the burden of proof on the person or entity proposing the activity that is potentially harmful to the environment. (See Report of Dr Sreenivasa Rao Pemmaraju, Special Rapporteur, International Law Commission, dated 3-4-1998, para 61.)"

(Emphasis Added)

In the present case, the SIPCOT as well as the SIPCOT Industrial Association have completely failed to discharge this onus. Thus, in light of the polluter pays' principle, this Hon'ble Tribunal may direct the Respondents to pay environmental compensation for causing such serious damage to the environment.

OVER-EXPLOITATION OF GROUNDWATER:

11. That It is pertinent to note that the area in question is situated on the coast of Tamil Nadu. As per Circular dated 02.07.2010 of the PWD of Government of Tamil Nadu, no ground water extraction is permissible within 10 kms of the coast. (See Annexure-1 at pages 14-15 of the response of the Applicant to the report dated 11.11.2019). The relevant part of the said Circular is reproduced hereunder:-

"Recently an application for the award of Ground Water Availability Certificate was received in this office from a from located in a coastal area, the proposed ground water drawal structure of which has been located at just 1KM from the Sea.

At the outset itself such applications are to be rejected outrightly as there is an imminent danger of sea water ingress into the land happening surely and rapidly in the coastal area leading towards the



energized drawal structure when once such a drawal structure is permitted for pumping of ground water in large quantities as requested by the Firms/Industries/Organisations for their usage. Obviously, such a proposition simply cannot be entertained by such a costly price of damaging our invaluable resources of land and water in the coastal area perennially.

Now the question here is how far from the sea coasts we must prohibit the establishment of such ground water development by any Firm/ Industry/Organization for its running. ...

Therefore in order to be very practical and reasonable, the border line or the line of separation of zones is hereby safely fixed at a perpendicular distance of 10 KM from the sea-coast beyond which only any ground water drawal proposal should be considered for processing and all other ground water development falling within the 10 KM range from the sea-coast should be rejected at the outset."

(Emphasis Added)

12. Further, the Cuddalore Taluka (Retty Chavadi and Thiruvanthi) wherein the industrial complex is situated has been notified as an over exploited zone with respect to ground water as per GO dated 1.10.2018. (See Annexure-2 at pages 16-20 of the response of the Applicant to the report dated 11.11.2019) It is submitted that no ground water extraction is permissible for industrial activities as per the said GO. Further, even as per the latest groundwater assessment conducted by the CGWB, these areas have been classified as over-exploited.

ASSESSMENT OF EXTENT OF CONTAMINATION AND REMEDIATION:

13. That it is pertinent to note that a Joint Committee constituted by this Hon'ble Tribunal has found that SIPCOT Cuddalore has been identified as a Critically Polluted Area (CPA) by the CPCB in 2009 and that the CEPI score with respect to water pollution has not improved over the years. This clearly shows that the quality of water including surface as well as ground water is contaminated and that there is a need for proper independent assessment of the extent of the same and remediate the same.
14. That the Joint Committee Report has failed to comply with the Terms of



Reference set by this Hon'ble Tribunal in its order dated 8.07.2019, wherein it was directed as follows:

"6. As regards the status of functioning of ETPs, we do not find the report to be adequate in as much as the samples for both the inlet and outlets had not been taken and tested and the adequacy of the pollution control devices examined.

7. The Committee has also not expressed as to whether the ground water extraction by the industry was with proper authorization obtained from the CGWA.

8. For the aforesaid reasons, we deem it necessary to refer the matter once again to the Joint Committee to do the following and submit a report;

"(i) To take the samples from the inlet and outlet of all the ETPs to ascertain as to whether the effluent are within the prescribed limit;

(ii) To ascertain the source of the heavy metal pollutants like Nickel, Cadmium, Manganese, Iron and Lead, etc.

(iii) To ascertain the adequacy of the pollution control devices installed by the industry.

(iv) After such tests, to assess the environmental compensation to be paid by the individual units for the default on their part."

9. It is a matter of record that the area had been declared as a Critically Polluted Area in the year 2009 and an action plan for remediation had also been prepared. Let the Committee also report as to whether the action plan had been implemented and if so, whether there has been any improvement of the situation in the area. There is also a need to assess the environmental damage caused to the area"

(Emphasis Added)

15. Despite clearly finding that the ZLD systems in most of the industries were ineffective and that some industries were exceeding in its Nickel and Copper levels (TNPCB standards and not the BIS drinking water standards), the Joint Committee report comes to a completely baseless conclusion that there is no "significant environmental damage" and only recommends for continuous and close monitoring. There are no recommendations with respect to assessment of damage due to the violations of the industry and how to remediate the same. It may be noted that the Hon'ble Supreme Court had laid down the test of understanding risk of environmental harm in the AP Pollution Control Board- I decision



(supra):-

*“39. It is also explained that if the environmental risks being run by regulatory inaction are in some way “uncertain but non-negligible”, then regulatory action is justified. This will lead to the question as to what is the “non-negligible risk”. In such a situation, the burden of proof is to be placed on those attempting to alter the status quo. **They are to discharge this burden by showing the absence of a “reasonable ecological or medical concern”.** That is the required standard of proof. The result would be that if insufficient evidence is presented by them to alleviate concern about the level of uncertainty, then the presumption should operate in favour of environmental protection. Such a presumption has been applied in *Ashburton Acclimatisation Society v. Federated Farmers of New Zealand* [(1988) 1 NZLR 78] . The required standard now is that the risk of harm to the environment or to human health is to be decided in public interest, according to a “reasonable persons” test. [See *Charmian Barton: Precautionary Principle in Australia* (Vol. 22) (1998) *Harv. Env. L. Rev.*, p. 509 at p. 549.]”*

16. In light of the above-mentioned findings of severe contamination, the Joint Committee completely failed to apply the standards as enumerated in the above quoted decision. **Despite, the CEPI score being so high, it is not clear how the Committee came to a conclusion that there is no significant environmental damage.** It may be noted that the Joint Committee completely failed to consult with the local communities or even look at historical data with respect to heavy metal contamination in the water sources in SIPCOT Cuddalore area.

17. That this Hon'ble Tribunal has in several cases given directions for remediation of the environment at the cost of the polluter. In the matter of *Sidhgarbyang Kalyan Seva Samiti v. State of Uttarakhand*, (OA No. 123 of 2018), vide final order dated 16.09.2020, this Hon'ble Tribunal had ordered for payment of environmental compensation by the industries within SIDCUL industrial area in Sitarganj District in Uttarakhand and had ordered for the preparation and implementation of an environmental restoration plan for remediating the damage to the soil and groundwater as well as surface water bodies in the area which was affecting the local residents.



The Applicants submit that similar orders may be passed in the present Application by engaging an independent agency such as the Environmental and Water Resources Division of the IIT Madras which has specialized expertise in remediation of contaminated sites.

ASSESSMENT OF HEALTH IMPACTS ON COMMUNITIES:

18. That in light of the clear finding that the entire SIPCOT Cuddalore region is highly contaminated, it is submitted that this Hon'ble Tribunal may also direct that a proper health impact assessment is conducted by an independent agency such as the Department of Community Medicine, JIPMER, Pondicherry of the communities residing in and around SIPCOT region who are exposed to such high levels of contaminants in their water resources. Further, the SIPCOT Industries must bear the cost of the said assessment as well as any treatment that is required for any affected person following the polluter pays principle.

RIGHT AND ACCESS TO CLEAN AND SAFE DRINKING WATER:

19. That during the course of proceedings, this Hon'ble Tribunal had rightly noted that the right to clean drinking water has been severely curtailed due to the industrial activities within SIPCOT. Thus, the following directions were passed vide order dated 7.09.2016:-

"It is seen from the study made in September, 2014 in respect of ground water quality in SIPCOT, Cuddalore based on the analysis of the samples taken by the Tamil Nadu Pollution Control Board that the ground water in and around SIPCOT Industrial Estate is heavily contaminated including cadmium and is not suitable for drinking or other purposes involving contact with humans or cattle.

The samples taken from 10 out of 11 localities show that Cadmium level was 5 to 128 above permissible limits in samples collected from SIPCOT Project Office; it was 3 to 125 times above limits in samples collected from Kudikadu overhead tank; it was 3 to 130 times above limits in samples collected from M/s.Tagros and it was 3-128 times above limits in samples collected from samples collected from the premises of M/s.Chemplast Sanmar.

The Central Pollution Control Board (CPCB) in its report also states



that the environment quality monitoring carried out by CPCB during 2011 and 2013 show that Mercury, Nickel, Manganese and Iron exceeds the permissible limit atleast in one or two locations.

...

Considering the gravity of the situation, we are of the view that pending further orders from this Tribunal, the residents of SIPCOT, Cuddalore should be provided with safe drinking water by the Government however, making recovery of the cost from SIPCOT under "polluter pays" principle. The 4th respondent shall make immediate arrangement for the purpose of supply of drinking water facilities to all the residents in the SIPCOT Cuddalore area and report the same on the next date of hearing."

(Emphasis Added)

20. That in purported compliance of the said direction, the Respondents have installed RO plants in some villages (not all villages have access to such RO plants). However, several issues arise out of such a measure:

- i. Even though there are RO Plants installed in some villages, the same are not accessible to everyone. The operating industry usually has a token system in place for accessing water, and the amount of water is limited for each family. The water thus, is simply not adequate and is not accessible to all affected residents of the 27 affected villages.
- ii. The quality of such RO water is questionable as it being sourced from the already contaminated ground water table in the area.

21. That it is submitted that in the long term, providing of drinking water by way of tankers or RO is not a sustainable solution. RO system in itself can be a source of groundwater contamination due to the highly toxic discharge after the filtration system which is usually not treated.

22. That therefore, in light of the above submissions, the Applicants respectfully pray to this Hon'ble Tribunal to pass the following directions under Section 15 and 20 of the National Green Tribunal Act, 2010:-



- i. Direct payment of environmental compensation as per the assessment of the CPCB for the damage caused to the environment by the polluting industries in the SIPCOT Cuddalore Region as per the polluter pays principle.
- ii. Direct the assessment of extent of damage and cost of remediation of the groundwater in SIPCOT Cuddalore area by an independent agency such as the Environment and Water Resource Division, IIT-Madras
- iii. Direct that the cost of such assessment and remediation is borne by the industries operating in SIPCOT as well as SIPCOT in terms of the Polluter pays principle.
- iv. Direct that the CEPI Action Plan to be prepared by TNPCB be prepared after proper consultation with stakeholders including the affected communities;
- v. Direct for a proper assessment of health impacts on the communities residing around the SIPCOT Cuddalore region, i.e. the 27 affected villages by an independent agency such as the Department of Community Medicine, JIPMER Pondicherry
- vi. Until such an exercise of assessment and remediation takes place, water be supplied to all affected villages for their drinking and domestic use.
- vii. Pass any other orders that this Hon'ble Tribunal may deem fit in the facts and circumstances of the case.

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