

# **P. V.Subramani vs The State Of Tamil Nadu Represented By ... on 28 February, 2022**

**Bench: K Ramakrishnan, K. Satyagopal**

Item No.1:-

BEFORE THE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI

(Through Video Conference)

ORIGINAL APPLICATION No. 410 of 2013 (SZ)

IN THE MATTER OF:

P.V. Subramanian  
S/o. P. Vellachamy,  
Arasamarathupatti,  
Neelamalai Kottai Post,  
Dindugul and Ors.

...Applicant(s)

VERSUS

State of Tamil Nadu  
Represented by its Director,  
Environment and Forest Department,  
Fort St. George, Chennai and Ors.

... Respondent(s)

For Applicant(s): Mr. A. Yogeshwaran.

For Respondent(s): Dr. D. Shanmuganathan for R1, R2 & R6.  
Mr. S. Sai Sathya Jith for R5.  
Mr. M. Guruprasad along with  
Mr. S. Arunprasath for R8.

Judgment Pronounced on: 28th February 2022.

CORAM:

HON'BLE Mr. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

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ORDER

Judgment pronounced through Video Conference. The original application is disposed of with directions vide separate Judgment.

Pending interlocutory application, if any, shall stand disposed of.

Sd/-

Justice K. Ramakrishnan, JM Sd/-

Dr. Satyagopal Korlapati, EM O.A. No.410/2013 (SZ), 28th February 2022. Mn.

Item No.1:-

BEFORE THE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE, CHENNAI  
(Through Video Conference) ORIGINAL APPLICATION No. 410 of 2013 (SZ) IN  
THE MATTER OF:

- 1) P.V. Subramanian S/o. P. Vellachamy, Arasamarathupatti, Neelamalai Kottai Post, Dindugul.
- 2) G. Kandhasamy S/o. Govindapagounder Arasamarathupatti, Neelamalai Kottai Post, Dindugul.
- 3) N. Selvaraj S/o. Chinna Nachimuthu Bramanayagapuram Neelamalai Kottai Post, Dindugul.
- 4) N. Sivaji (Died) S/o. K. Nadunachimuthu Bramanayagapuram Neelamalai Kottai Post, Dindugul.
- 5) Selvaraj S/o. Subramaniyagounder Bramanayagapuram Neelamalai Kottai Post, Dindugul.
- 6) N. Sakthivel S/o. Periyannachimuthu Bramanayagapuram Neelamalai Kottai Post, Dindugul.
- 7) Ramuthai W/o. Nadunachimuthu Bramanayagapuram Neelamalai Kottai Post, Dindugul.

8) Eshwari W/o. Late Shivaji Bramanayagapuram Neelamalai Kottai Post, Dindugul.

9) Suganeshwaran (Minor) S/o. Late Shivaji Rep. by Eshwari (Mother) Bramanayagapuram Neelamalai Kottai Post, Dindugul.

10) Kiruthikumar (Minor) S/o. Late Shivaji Rep. by Eshwari (Mother) Bramanayagapuram Neelamalai Kottai Post, Dindugul.

(Applicants No.7 to 10 were impleaded as legal heirs of 4th Applicant As per order in M.A. No.269 of 2016 dated 30.01.2017) ...Applicant(s) VERSUS

1) State of Tamil Nadu Represented by its Director, Environment and Forest Department, Fort St. George, Chennai.

2) The District Collector Dindigul District.

3) The Tamil Nadu Pollution Control Board Rep. by its Chairperson Annasalai, Chennai.

4) The District Environmental Engineer Tamil Nadu Pollution Control Board Plot No.44, Jeyaraj Bhavan 9th Cross Street, Dindugul.

5) Srirampuram Town Panchayat Rep. by its Executive Officer Srirampuram, Dindugul.

6) The Tahsildar, Dindugul District.

7) Reddiyar Chatram Panchayat Union Rep. by its Chairman, Reddiyarchatram.

8) Mor Molaga Urpathiyalar Nalasangam Boliyamanur Neelamalai Kottai (P.O.) Dindugul.

9) V. Subramani S/o. Vellaichamy, 12th Ward, Boliyammanur, Dindigul District.

10) R. Ragavendrappabhu S/o. Ramasamy 13th Ward, Boliyammanur, Dindigul District.

11) P. Karuppusamy S/o. Perumal, 13th Ward, Gounder Street, Boliyammanur, Sri Ramapuram, Dindigul District.

12) Kanagaraj @ Thiyagamoorthy S/o Natchimuthu Gounder, 14th Ward, Boliyammanur, Dindigul District.

13) Palanisamy S/o Kannappa Gounder 13th Ward, Boliyammanur, Dindigul District

14) D. Kandhasamy S/o. Duraisamy Chettiyar, 13th Ward, Boliyammanur, Dindigul District

15) L. Krishnan S/o. Lakshmanan Chittiyar, 13th Ward, Boliyammanur, Dindigul District.

- 16) Jayalakshmi W/o. Boobathi 13th Ward, Boliyammanur, Dindigul District.
- 17) R. Subbaiya S/o. Ramasamy Chettiyar 14th Ward, Boliyammanur, Dindigul District.
- 18) Chellam W/o. Ramakrishnan 13th Ward, Boliyammanur, Dindigul District.
- 19) K. Sakthivel S/o. Karuppana Gounder, 13th Ward, Boliyammanur, Neelamalai Kottai, Dindigul District.
- 20) K. Vanjiyappan S/o. Karupanan 13th Ward, Boliyammanur, Dindigul District
- 21) P. Mariyappan S/o. Periyana Gounder 13th Ward, Boliyammanur, Dindigul District
- 22) R. Mariappan S/o. Ramasamy Gounder 12th Ward, Boliyammanur, Neelamalai Kottai, Dindigul District.
- 23) K. Velusamy S/o. Kandhasamy 12th Ward, Boliyammanur, Dindigul District.
- 24) Jaya W/o. Sivalingam Kodavali Village, Boliyammanur, Dindigul District.
- 25) K. Arumugam S/o. Kandhasamy 12th Ward, Boliyammanur, Dindigul District.
- 26) M. Usha W/o. Magudeeswaran 13th Ward, Boliyammanur, Dindigul District.
- 27) S. Dhanalakshmi W/o. Sakthivel 13th Ward, Boliyammanur, Dindigul District,
- 28) S. Balamurugan S/o. Subbaiya 14th Ward, Boliyammanur, Dindigul District.

(Respondents No.9 to 28 were impleaded as per order dated 15.12.2016 in MA. Nos.270/2016 to 289/2016] ... Respondent(s) For Applicant(s): Mr. A. Yogeshwaran.

For Respondent(s): Dr. D. Shanmuganathan for R1, R2 & R6.

Mr. S. Sai Sathya Jith for R5.

Mr. M. Guruprasad along with Mr. S. Arunprasath for R8.

Judgment Reserved on: 23rd November 2021.

Judgment Pronounced on: 28th February 2022.

CORAM:

HON'BLE Mr. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER Whether the Judgment is allowed to be published on the Internet - Yes/No Whether the Judgment is to be published in the All India NGT Reporter - Yes/No JUDGMENT Delivered by Justice K. Ramakrishnan, Judicial Member

1. This case pertains to pollution caused on account of operation of Mormilagai (Dried Buttermilk Chili) manufacturing units in Sriramapuram Town Panchayat.
2. According to the applicants, they are agriculturists in Kodalvavi Revenue Village, more specifically at Boliyamanur Village and surrounding villages. They were doing cultivation like Cauliflower, Ladies-finger (Okra), Tomatoes, Drumstick trees, Green chili, Onion, Maize and corn.

According to the applicants, due to the sustained and continued dumping of salt and refuse from manufacture of Mormilagai, the water and soil in that area had been detrimentally affected. The salt content in the water has increased to alarming level and it is not potable. The groundwater from the wells in that area became foul smelling and unfit for any use. Even livestock and other animals were unable to consume the groundwater from the wells and the soil has also been affected, resulting in great reduction in yield and in most cases, crops have withered. There are about 200 Mormilagai manufacturing units in that village and they have been carrying on this process by using Green chili, Curd and Salt. The process involves soaking green chilies in curd and salt together, then drying the mixture in the sunlight. This solid residue consisted primarily of salt that was mixed with soil and the liquid waste generated from the process was also let out into the ground without being treated. As a result, salt from the solid refuse and liquid discharge percolated into soil and water resources, causing the groundwater to become unfit for drinking. The crops also affected on account of the same. During the process, the salt refuse is disposed of in an unscientific way. Though representations were made to the authorities, no action was taken. On 12.12.2012, the authorities even conducted a grievance redressal meeting for farmers in the region and the effect of the present pollution was also discussed. The Pollution Control Board vide their letter dated 04.03.2013 addressed to the 5th Respondent, admitting the fact that unscientific disposal of salt and liquid discharge by Mormilagai manufacturers had indeed polluted the entire region. The letter further stated that more than 320 families in Ward No.12 to 15 of Sriramapuram Panchayat Union were involved in manufacture of Mormilagai and 100 Tons of salt is utilized for the process every month.

More than 1 Ton solid waste and 100 Lt. of liquid waste per week were generated by these manufacturers. The TDS level of the affected well in that region was 10,424 Mg/Lt. So, they have issued the following directions: -

- "a. Mormilagai manufacturers should construct cement pans for drying Mormilagai and should only let it dry on tarpaulin sheet and collect the salt refuse and store it in a closed shed well protected from water.

b. The salt laden liquid discharge from the cement tubs for soaking Mormilagai should be let out to dry on cement pans and the dry refuse should be stored in the closed shed. At no time should the same be let into soil or into water bodies."

3. By Annexure - A1, Letter they also indicated that the measure ought to be taken within one month. Further, on 28.03.2013, the Pollution Control Board had issued Annexure - A2, Letter reiterated the contents in Annexure - A1 and issued the same directions to the Mormilagai manufacturing units under Section 33 A of the Water (Prevention and Control of Pollution) Act, 1974. The first applicant had sent a lawyer notice to the few manufacturers of Mormilagai to which Annexure - A3, Reply 02.05.2013 was received, sent on behalf of the 8th Respondent Association wherein they had admitted the factum of burying of salt and refuse by the manufactures of Mormilagai. As per B.P.Ms. No.30 dated 21.02.1984, the tolerance limit for effluent as far as TDS is 2,100 evidenced by Annexure - A4. The soil and water samples were taken and sent for analysis and obtained Annexure - A5 and A6 series dated 28.01.2013 and 02.01.2013 respectively. The reply dated 31.07.2013 received by the applicant under the Right Information Act, 2005 revealed that the Mormilagai manufacturers were also operating without permission from the local bodies and they had not complied with the direction issued by the 3rd Respondent Board under Section 33 A of the Water (Prevention and Control of Pollution) Act, 1974, evidenced by Annexure - A7. It was also seen from Annexure - A8, Reply received on 31.07.2013 that the 5th Respondent had even issued notices to 138 individual manufacturers in this regard. A resolution was passed by the 7th Respondent decided to take action against those indulging in manufacture of Mormilagai illegally evidenced by Annexure - A9, Resolution.

4. Since the officials have not taken any action, the applicants filed this application seeking the following reliefs:-

"(a) Direct the 3rd and 4th Respondents to effect closure of all units/persons involved in the manufacture of Mormilagai without valid consent under the Water (Prevention and Control of Pollution) Act, 1974.

(b) Direct the respondents to pay compensation for the losses suffered by the affected farmers due to the contamination of soil and water in the area.

(c) Direct the respondents to take appropriate action to remediate the area.

(d) Direct the respondent to prevent any manufacture of Mormilagai without valid permission from the local bodies.

(e) Direct the respondents to initiate appropriate action to assess the damage caused to the area due to the actions of the 8th Respondent and its members and take suitable steps to remediate the area.

(f) And pass further or other orders as it may deem fit and thus render justice."

5. Respondents No.3 & 4/Tamil Nadu Pollution Control Board filed reply affidavit contending that the Mormilagai manufacturing activity has been carried out in Poliyamannur Village, Srirampuram Town Panchayat, Dindugul Taluk and District for more than 20 years mainly for their livelihood. Initially, few families were involved in manufacturing activity.

At present, 124 families were involved in the said activity. This is a cottage type industrial activity, which did not require electricity and separate premises for manufacturing process. The work was done by the members of the family in front of the residential houses. Normally, each family was having 5 No. of circular tank (3 ft. x 3 ft. size) for soaking the green chili.

The manufacturing process was one soaking tank was as follows:-

"1. Putting holes in the fresh green chilly.

2. Two bags of this holed green chilly (160 Kgs), are taken in a 3'x3'circular cement tank. Water 40 lit, Salt 20 Kg, Curd 20 lit are added in the tank and allowed for soaking for 1day.

3. This soaked chilly is spread over the tarpaulin sheet on a cement floor for sun drying for one day.

4. Again this chilly is put in to the tank for 12 hrs of soaking and dried for 12 hrs.

5. The above process will be repeated for 3 days until the color is changed from green to white chilly.

6. Finally the chilly is dried for 15 to 20 days for getting dry chilly called Mor Milagai.

7. After 2 batches are taken out the tank is washed and the wash water from the tank is discharged. This comes around 5 liter per month.

8. The salt residues generated from the drying activity of chilly around 0.5 Kg will be collected in HDPE bags."

6. It is further contended that each family was taking two batches in a month.

On the whole, 400 Tons of green chilies were used in a month for manufacturing of Mormilagai and in the manufacturing process, 50 Tons of salt and 50 Tons of Curd and 1 Lakh liters of water were used. The wash water generated from washing of soaking tank around 6300 Ltr/Month. Waste salt residue collected from the Pauline (drying of chili) and from washing of soaking tank was around 1.26 Tons in a month. On the basis of a complaint dt. 21.12.2012 received from Mr. P.V. Subramanian and other farmers of Neelamalai Kottai Village against the 8th Respondent's Mormilagai manufacturing activity carried out in that village stating that nearby agricultural lands and wells were affected due to discharge of waste water and the used salt. The Mormilagai units

were inspected by the officials of the Pollution Control Board on 21.12.2012 and well water samples in open well of P. Sakthivel, bore well at compost yard, drinking water well near Mangaiyur Kottar, open well of N. Maruthaiappa Gounder and open well of R. Velan were collected and the report of analysis of the samples was extracted as follows:-

Sl. No.	Point of collection	TDS (mg/l)
1	Open well of Thiru P. Sakthivel	10424
2	Open well of Thiru Maruthaiyappa Gounder	7460
5	Drinking water well (Mankariyur, Kottar)	264

7. On the basis of which direction under Section 33 A of the Water (Prevention and Control of Pollution) Act, 1974 was issued to the Executive Officer of Srirampuram Town Panchayat vide their letter dated 28.03.2013 to carry out the following measures:-

"i. Mor Milagai manufacturers shall provide cement floor for drying the Mor Milagai. Tarpaulin shall be spread over the cement floor and the chilly shall be dried over the tarpaulin. The used salt obtained after drying of chilly shall be collected and kept in closed shed.

ii. Separate cement floor shall be provided to evaporate the waste water generated from washing of tanks and the wash water shall be discharged into the cement floor for solar evaporation. The waste water shall not be discharged on land or into the water sources.

iii. The Mor Milagai manufacturers shall provide the above said precaution measures within a month period.

iv. The Mor Milagai manufacturers shall obtain licence from Srirampuram Town Panchayat for their activity.

v. Necessary action shall be taken to stop the water supply to the manufacturers if they do not comply with the above instruction."

8. The Executive Officer, Srirampuram Town Panchayat by its letter dated 06.02.2014 had furnished their action taken report as follows:-

"1. The instruction notice was issued to 138 manufactures by registered post on 09.04.2013.



2. Subsequently the instruction was published in the daily news papers dated on 19.04.2013, 13.05.2013 and 18.05.2013.

3. During inspection on 12.07.2013, some of the manufacturers who had not provided the cement floor as per direction were found and seized their raw materials and also filed a complaint against them in the police station.

4. Till 06.02.2014, 30 manufacturers have applied to the Srirampuram Town Panchayat for getting occupational license. The applications are under process at the panchayat office."

9. It is further contended that 124 manufacturing units of Mormilagai were inspected by the officials of the TNPCB on 13.02.2014, 14.02.2014 and 18.02.2014 and found that they had provided cement floor for drying the chili and solar evaporation pan for evaporating the waste wash water. The manufacturers had assured to keep the waste salt in the existing shed so as to protect the same from rain. The manufacturers were advised to apply for getting occupational license from the Srirampuram Town Panchayat.

So, they prayed for passing appropriate orders, accepting their contentions.

10. The 8th Respondent filed a counter affidavit contending that the 8th Respondent is represented by its President and it is society representing the Mormilagai manufacturing units in that area. There are about 170 members in their society and the same was registered under registrar of societies with Regn. No.10 of 2013. There were about 500 families in the village and 3 decades ago, village people were engaged in agricultural activities and also involved in agricultural laborers. Since that was not sufficient to meet both ends, they engaged in Mormilagai business as the investment was very meager and gradually, most of villagers got indulge themselves into this business and they were able to lead a dignified life on account of the income derived from the same. Most of them were illiterate and did not possess any basic qualification, but they were doing their work sincerely and efficiently. They worship their business, as it helped a lot and gave a life to many people. The first applicant was not belonging to their village and he was from Arasamaruthupatti and he was not having any land in the said village. Villages were separated by a river and from 2012 onwards, the first applicant was in the habit of filing complaints. The Pollution Control Board officials inspected the sites on 21.12.2012 and they issued certain guidelines to streamline the business among the villagers.

The authorities had advised to follow the guidelines and one month time was given for implementation of the same. Since the time was too short, all of them requested for some more time and accordingly, the time was extended by one year. All the 170 members had implemented the guidelines issued by the Board. Further, a committee was formed between them and effective steps were taken to avoid any breach of guidelines issued by the Pollution Control Board. They were asked to get permission for their business from the Srirampuram Panchayat and most of them had approached the local body and their applications were pending due to the pendency of this proceeding. They had no intention to pollute any property and they would take all necessary steps to

protect environment.

11. Respondents No.3 & 4/Tamil Nadu Pollution Control Board filed a further report dated 07.01.2016 contending that a complaint was received from P.V. Subramanian S/o. Vellachamy and Ors. against the Mormilagai manufacturers in Boliyammanur Village, Srirampuram Town Panchat, Dindugul Taluk and District and 138 Mormilagai manufacturing units were inspected by the Tamil Nadu Pollution Control Board officials on 05.01.2016 and fresh inspection report and compliance and existing physical features were submitted as follows:-

"Mor Milagai manufacturing activity is carried out in Boliyammanur Village, Srirampuram Town Panchayat, Dindigul Taluk and Dindigul District. This activity is carried out in this Village for more than 20 Years mainly for their livelihood. Initially, few families were involved in the manufacturing activity. This is a cottage type of industrial activity which does not require electricity and a separate premise for the manufacturing process. The work is done by the members of the family in front of their residential house. In order to prevent the water pollution caused by the unit, A direction under section 33(A) of Water (P&CP) Act, 1974 as amended was issued to the Executive Officer (EO), Srirampuram Town Panchayat from Board vide letter Dated: 28.03.2013 to carry out the following measures:

1. Mor Milagai manufactures shall provide cement floor for drying the Mor Milagai. Tarpaulin shall be spread over the cement floor and the chilly shall be dried over the tarpaulin. The used salt obtained after drying of Chilly shall be collected and kept in closed shed.
2. Separate cement floor shall be provided evaporate the waste water generated from washing of tanks and the wash water shall be discharged into the cement floor for solar evaporation. The waste water shall not be discharged on land or into the water sources.
3. The Mor Milagai manufactures shall provide the above said precaution measures within a month period.
4. T h e M o r M i l a g a i m a n u f a c t u r e s s h a l l o b t a i n l i c e n s e f o r m Srirampuram Town Panchayat for their activity.
5. Necessary action shall be taken to stop the water supply to the manufacturers if they do not comply with the above instruction.

The 138 Mar Milagai Manufacturing units were inspected by TNPC Board officials on 05.01.2016 and found that they have provided the cement concrete floor for drying the chilly. Waste salt residue collected from the soaking tank, tarpaulin is reused in the manufacturing process for subsequent batches. The compliance of direction issued under section 33(A) of water (P&CP) Act 1974 to the Executive Officer, Srirampuram Town Panchayat are as follows.

Sl. No.	Conditions	Compliance
1.	Mor Milagai manufactures shall More	Milagai manufactur

provide cement floor for drying the provided cement concrete floor for drying Mor Milagai. Tarpaulin shall be the Mor Milagai. Tarpaulin sheet was spread over the cement floor and the spread over the cement concrete floor chilly shall be dried over the and the chilly were dried over the tarpaulin. The used salt obtained tarpaulin. The used salt obtained after after drying of chilly shall be drying of chilly is collected and reused collected and kept in closed shed. for process in subsequent batches.

2. Separate cement floor shall be Waste water generated from washing of provided evaporate the waste water tanks are collected and reused for generated form washing of tanks soaking in subsequent batches. and the wash water shall be discharged into the cement floor for solar evaporation. The waste water shall not be discharged in land or into the water sources.

3. The Mor Milagai manufactures All the Mor Milagai manufacturing shall provide the above said provide units were provided cement concrete the above said precaution measures floor, Taupaulin of drying chilly. within a month period.

4. The Mor Milagai manufactures During inspection on 05.01.2016 the shall obtain license form Executive Office, Srirampuram Town Srirampuram Town panchayat of Panchayat stated that the 30 their activity manufactures have applied to the Sri Ramapuram Town Panchayat for getting occupational license the applications are under process.

5. Necessary action shall be taken to The units have complied all the stop the water supply to the directions issued by the Tamil Nadu manufactures if they do not comply Pollution Control Board under Section with the above instruction. 33 (A) of the Water (P&CP) Act 1974, as amended except obtaining the occupational license from the Sri Ramapuram Town Panchayat."

12. They prayed for passing appropriate orders, accepting the report.

13. The applicant filed rejoinder to the counter filed by the 8th Respondent denying the allegations that the area had not been affected on account of the activities of the manufacturing of Mormilagai units and the applicant property was not situated near that area. In fact, the entire groundwater in that area had been contaminated and it had become unfit for drinking or other household purpose due to its over salinity and groundwater level around 3 Kms from Boliyammanur Village had been affected on account of the same. The contention that they were disposing of the waste in a scientific manner and there was no possibility of any pollution caused was not correct. The photograph produced would go to show that the dumping of solid refuses and liquid effluents on soil which resulted in damage to the environment. It would have the same effect as that of a dyeing unit discharging their effluents. The report of the Pollution Control Board would go to show that huge quantity of salt is being used and large scale water is also used for this purpose which is being discharged into the ground without treatment. So, they prayed for accepting their contentions and passing appropriate orders in tune with the reliefs claimed in the Original Application.

14. The Tamil Nadu Pollution Control Board filed another status report dated Nil, filed before the Tribunal on 20.07.2016 where they had stated that these units were working as cottage units in the residential areas and in view of the complaints made and also observations made by them at the time of inspection, a direction under Section 33 A of the Water (Prevention and Control of Pollution) Act, 1974 was issued to the Executive Officer -

Sriramapuram Town Panchayat vide their letter dated 28.03.2013 to carry out the following measures:-

"1. Mor Milagai manufactures shall provide cement floor for drying the Mor Milagai. Tarpaulin shall be spread over the cement floor and the chilly shall be dried over the tarpaulin. The used salt obtained after drying of Chilly shall be collected and kept in closed shed.

2. Separate cement floor shall be provided evaporate the waste water generated from washing of tanks and the wash water shall be discharged into the cement floor for solar evaporation. The waste water shall not be discharged on land or into the water sources.

3. The Mor Milagai manufactures shall provide the above said precaution measures within a month period.

4. The Mor Milagai manufactures shall obtain license from Sriramapuram Town Panchayat for their activity.

5. Necessary action shall be taken to stop the water supply to the manufacturers if they do not comply with the above instruction."

15. Further, as per order dated 20.05.2016, this Tribunal had issued the following directions:-

"We are of the view that the Pollution Control Board must be more specific in the report and submit appropriate Analysis and Audit Report in respect of the quantity of Mormilagai which are produced, the quantity of salt and how the remaining salts are discharged including water and buttermilk. The appropriate Analysis Report shall be filed by the Board on the next date of hearing. We also direct the 5th Respondent to file Status Report as to how many of the units have applied for 'Consent' and how many of them given consent."

16. On the basis of the above order, 153 Mormilagai manufacturing units were jointly inspected by the District Environmental Engineer, Dindugul, Pollution Control Board officials and local bodies on 30.06.2016 and 01.07.2016. During the inspection, it was found that they had provided cement concrete floor for drying the chili and residues salt collected from the soaking tank and tarpaulin was reused in the manufacturing process for subsequent batches. The compliance of directions issued under Section 33 A of the Water (Prevention and Control of Pollution) Act, 1974 to the

Executive Officer are as follows:-

Sl. No.	Directions	Compliance
1.	Mor Milagai manufactures shall provide cement floor for drying the Mor Milagai. Tarpaulin shall be spread over the cement floor and the chilly shall be dried over the tarpaulin. The used salt obtained after drying of chilly shall be collected and kept in closed shed.	All the 153 Mor Milagai manufacturing units have provided cement concrete floor for drying the Mor Milagai. Tarpaulin sheet was spread over the cement concrete floor and the chilly is dried over the tarpaulin. The used salt obtained after drying of chilly is collected and reused for process in subsequent batches.
2.	Separate cement floor shall be provided evaporate the waste water generated form	Waste water generated from washing of soaking tanks at the end of the process. The quantity of waste water generated is about 54920 litres per month. Out of 153 units 39 units are provided
	washing of tanks and the wash water shall	Solar Evaporation Pan for disposal of waste water, the remaining 114 units have not provided Solar

be discharged into the Evaporation Plan and discharging the waste water cement floor for solar on land for open percolation leading to ground evaporation. The water contamination.

waste water shall not be discharged in land or into the water sources.

3. The Mor Milagai Though the direction under Section 33 (A) of the manufactures shall Water (Prevention and Control of Pollution) Act, provide the above said 1974 as amended was issued to the Executive provide the above said Officer, Srirampuram Town Panchayat from precaution measures Tamil Nadu Pollution Control Board vide within a month Proceedings dated 28.03.2013 to carryout the period. remedial measures mentioned therein, only 39 units out of 153 units have complied all the remedial measures related with the abatement of pollution (such as providing drying yard & Solar Evaporation Pan). The remaining 114 units are partly complied (provided only drying yard and not provided the Solar Evaporation Plan) and continue to discharge the waste water on open land. The well water samples collected from the petitioners wells reveals that the parameters such as Total Dissolved Solid and Chloride are very high. The sample collected from the control well (the well having no influence of the waste water discharge) and owned by Thiru. R. Velan reveals that the Total Dissolved Solid level and chloride level are around 1200 mg/lit and 300 mg/lit respectively. Comparison of the petitioners well samples with the control well sample conforms that waste water discharge from the Mor Milagai Manufacturing units has influence on the petitioners well.

4. The Mor Milagai Srirampuram Town Panchayat have formulated manufactures shall and notified the sub rules pertaining to the issue of obtain license form license to the Mor Milagai Manufacturing units Srirampuram Town under District Municipal Act, 1920 in the panchayat of their Dindigul District Gazette (vide Na. Ka. activity No.31370/2013/T4 dated 19.11.2013) The executive officer, Srirampuram Town Panchayat has informed vide letter dated 11.05.2016 that notices have been issued to the 138 Mor Milagai Manufacturing units and also requested to have a joint inspection by Tamil Nadu Pollution Control Board along with the local body officials.

Accordingly, the joint inspection was carried out on 30.06.2016 and 01.07.2016.

5. Necessary action The Executive Officer, Srirampuram Town shall be taken to stop Panchayat has informed vide letter dated the water supply to 11.05.2016, that notices have been issued to the the manufactures if 138 Mor Milagai Manufacturing units.

they do not comply  
with the above  
instruction.

17. They prayed for accepting the report and pass appropriate orders.

18. The Tamil Nadu Pollution Control Board also filed another status report received by this Tribunal on 03.08.2016 reads as follows:-

"Report on Mor Milagai Manufacturing units located in Boliமானoor Village, Dindigul West Taluk, Dindigul District.

It is respectfully submitted that a complaint was received from P.V. Subramanian, S/o. P. Vellachamy and others and against the Mor Milagai manufactures in Boliமானoor Village, Srirampuram Town Panchayat, Dindigul Taluk and Dindigul District against contamination of soil and ground water. It is respectfully submitted that the 153 Mor Milagai Manufacturing units were jointly inspected by TNPC Board officials and local body on 30.06.2016 & 01.07.2016 and fresh inspection report and the compliance of existing physical features are submitted.

The Mor Milagai manufacturing units are located in the Srirampuram Town Panchayat. This activity is carried out for more than 20 years and mostly carried out in the land available adjoining to the residential houses. This is a cottage type of industrial activity not requiring electricity and also special equipments for manufacturing. In order to prevent the water pollution caused by the unit, A direction under section 33 (A) of Water (P & CP) Act, 1974 as amended was issued to the Executive Officer (EO), Srirampuram To Panchayat from Board vide letter

Dated : 28.03.2013 to carry out the following measures.

1. Mor Milagai manufactures shall provide cement floor for drying the Mor Milagai. Tarpaulin shall be spread over the cement floor and the chilly shall be dried over the tarpaulin. The used salt obtained after drying of chilly shall be collected and kept in closed shed.
2. Separate cement floor shall be provided evaporate the waste water generated from washing of tanks and the wash water shall be discharged into the cement floor for solar evaporation. The waste water shall not be discharged on land or into the water sources.
3. The Mor Milagai manufactures shall provide the above said precautionary measures within a month period.
4. The Mor Milagai manufactures shall obtain license form Srirampuram Town Panchayat for their activity.
5. Necessary action shall be taken to stop the water supply to the manufacturers if they do not comply with the above instruction.

The 153 Mor Milagai Manufacturing units were jointly inspected by TNPC Board officials and Local body officials on 30.06.2016 & 01.07.2016 and found that they have provided the cement concrete floor for drying the chilly. The residual salt collected from the soaking tank and tarpaulin is reused in the manufacturing process for subsequent batches. The compliance of direction issued under section 33 (A) of water (Prevention and Control of Pollution) Act 1974 to the Executive Officer, Srirampuram Town Panchayat are as follows.

Sl. No.	Directions	Compliance
1.	Mor Milagai manufactures shall provide cement floor for drying the Mor Milagai. Tarpaulin shall be spread over the cement floor and the chilly shall be dried over the tarpaulin. The used salt obtained after drying of chilly shall be collected and kept in closed shed.	All the 153 Mor Milagai manufacturing units have provided cement concrete floor for drying the Mor Milagai. Tarpaulin sheet was spread over the cement concrete floor and the chilly is dried over the tarpaulin. The used salt obtained after drying of chilly is collected and reused for process in subsequent batches.
2.	Separate cement floor shall be provided evaporate the waste	Waste water generated from washing of soaking tanks at the end of the process. The quantity of waste water generated is about 54920 litres per

water generated form month. Out of 153 units 39 units are provided  
washing of tanks and Solar Evaporation Pan for disposal of waste water,  
the wash water shall the remaining 114 units have not provided Solar

be discharged into the Evaporation Plan and discharging the waste water cement floor for solar on land for open percolation leading to ground evaporation. The water contamination.

waste water shall not be discharged in land or into the water sources.

3. The Mor Milagai Though the direction under Section 33 (A) of the manufactures shall Water (Prevention and Control of Pollution) Act, provide the above said 1974 as amended was issued to the Executive provide the above said Officer, Srirampuram Town Panchayat from precaution measures Tamil Nadu Pollution Control Board vide within a month Proceedings dated 28.03.2013 to carryout the period. remedial measures mentioned therein, only 39 units out of 153 units have complied all the remedial measures related with the abatement of pollution (such as providing drying yard & Solar Evaporation Pan). The remaining 114 units are partly complied (provided only drying yard and not provided the Solar Evaporation Plan) and continue to discharge the waste water on open land. The well water samples collected from the petitioners wells reveals that the parameters such as Total Dissolved Solid and Chloride are very high. The sample collected from the control well (the well having no influence of the waste water discharge) and owned by Thiru. R. Velan reveals that the Total Dissolved Solid level and chloride level are around 1200 mg/lit and 300 mg/lit respectively. Comparison of the petitioners well samples with the control well sample conforms that waste water discharge from the Mor Milagai Manufacturing units has influence on the petitioners well.

4. The Mor Milagai Srirampuram Town Panchayat have formulated manufactures shall and notified the sub rules pertaining to the issue of obtain license form license to the Mor Milagai Manufacturing units Srirampuram Town under District Municipal Act, 1920 in the panchayat of their Dindigul District Gazette (vide Na. Ka. activity No.31370/2013/T4 dated 19.11.2013) The executive officer, Srirampuram Town Panchayat has informed vide letter dated 11.05.2016 that notices have been issued to the 138 Mor Milagai Manufacturing units and also requested to have a joint inspection by Tamil Nadu Pollution Control Board along with the local body officials.

Accordingly, the joint inspection was carried out on 30.06.2016 and 01.07.2016.

5. Necessary action The Executive Officer, Srirampuram Town shall be taken to stop Panchayat has informed vide letter dated the water supply to 11.05.2016, that notices have been issued to the the manufactures if 138 Mor Milagai Manufacturing units.

they do not comply  
with the above



instruction.

As directed by the Hon'ble National Green Tribunal (South Zone), Chennai vide order dated 20.05.2016 on Application No.410 of 2013 (SZ), status report pertaining to 153 Mor Milagai manufacutirng units along with the Report of Analysis is submitted."

19. They also attached the manner in which it is being extracted and the status of the Mormilagai manufacturing units, report of analysis and photographs showing the Mormilagai manufacturing activity along with this report. The water analysis report showed huge quantity of TDS, Chloride in the waste water discharged into the open land. They also produced the report of analysis of the water samples collected from the wells of the surrounding areas which reads as follows:-

"Report of Analysis (Well water sample collected in surrounding area) Total Dissolved Chloride Sl. Date of Sulphate Point of collection Solids (Cl) No. collection (mg/l) (TDS) (mg/l) (mg/l)

1. Open well of Thiru N. 30.06.2016 10256 3999 174 Selvaraj

2. Open well of Thiru N. 30.06.2016 12036 4349 115 Shivaji

3. Open well of Thiru N. 30.06.2016 8964 3299 127 Sakthivel P.V. Subramani Maruthiappa Goundar (public drinking water)

7. Open well of Thiru S. 01.07.2016 6204 1999 141 Selvaraj Kanthasamy Thiru R. Velan (the well having no influence of waste water discharge)

20. On 03.10.2016, the applicant filed an affidavit reiterating the contentions raised by them in the Original Application as well as in the rejoinder and continual operation of the Mormilagai units without obtaining necessary permission would amount to illegality and that would cause further deterioration in that area and a detailed study had to be conducted to assess the damage caused, as due to monsoon there was a possibility of natural remediation being caused or more damage being caused, as drying of refuse would be difficult and there was a possibility of waste water being discharged into the ground and it would likely to be carried as runoff during rainy season.

21. As per order dated 09.09.2016, this Tribunal had passed the following order:-

"As per our earlier direction, the District Environmental Engineer, Dindigul is present in the Tribunal. After hearing the learned counsel as well as the Officer concerned, we are of the view that District Environmental Engineer, Dindigul should convene a meeting of those project proponents who have not established solar evaporation plant to inform them various requirements including the cost etc., and give them sufficient time. In the event of not establishing the same, the Pollution Control Board can proceed to direct the Panchayat to stop water supply.

In the meantime, we direct the Pollution Control Board to pass appropriate orders regarding closure of the units without cutting the water supply and electricity supply. In the meeting to be convened by the District Environmental Engineer, the Executive Officer of Town Panchayat shall be present. It is open to the applicant to participate in such meeting.

Post this application on 03.10.2016."

22. The 8th Respondent filed an undertaking affidavit on behalf of the association through its President that there were about 170 members in their society and the same was registered before the registrar of societies with Reg. No.10 of 2013 and now 13 members were removed and as of now only 153 members were there in the society. They further undertook that they would construct the elevated solar panel within one month from 04.10.2016 and that was only source of their income and they have no intention to spoil the ecology of their own land. They also undertook that they would follow all the earlier directions issued by the Pollution Control Board and they were directed to construct the elevated solar panel on or before 27.09.2016. But due to paucity of funds, they could not comply with the same and they wanted one month time and if that time was granted, they could be able to complete the same. The officials had directed to close the units as per order of this Tribunal dated 09.09.2016. So, they wanted to record their undertaking and permit them to continue their business.

23. This Tribunal by order dated 05.10.2016 had considered the undertaking given by the 8th Respondent and thereafter, passed the following order:-

"We have heard learned counsel appearing for the applicant as well as respondents, particularly the project proponent.

The 8th respondent which is an Association of Mor Melagai Urpathiyalar Nalasangam has filed an undertaking affidavit dated 04.10.2016 to the effect that within one month from today elevated solar pan will be installed in respect of individual units. In the said affidavit it is stated that there were 170 Members attached to the Association earlier and after removal of 17 members, there are as on date 153 Members are holding Membership in the Nalasangam. On behalf of 153 Members of the Mor Melagai Urpathiyalar Sangam Mr.Gopi the President of the Sangam has filed an undertaking. The paragraph 3 of the affidavit which contain the undertaking as follows:

"I respectfully state that we will construct the elevated solar pan within one month from today i.e. 04.10.2016 this is the only source of our income and we have no intention to spoil the ecology of our land. I submit that the members of the association are very cooperative and they followed all the earlier directions issued by the Pollution Control Board officials. We have been instructed to construct elevated solar pan on 27.09.2016 and since we could not mobilize money immediately we are requesting this Hon'ble Court to grant us one month for completion of construction

activities. The officials was pleased to close the concerns as per the orders of this Hon'ble Court dated 09.09.2016. I humbly submit that this Hon'ble Court may be pleased to record our undertaking and permit us to continue our business"

It is the case of the Board that even from 28.03.2013, the Board has been directing this Mor Melagai Urpathiyalar Nalasangam to instal the elevated solar pan apart from the concrete structure for evaporating the moisture. It is seen that out of 153 units only 39 units have complied with the terms including putting up of elevated solar pans and others have not carried out the said activity so far. Now that on behalf of them, the President of the Sangam has given an undertaking, we make it clear that in accordance with the undertaking, the remaining members of the sangam and all other manufacturers of Mor Melagai Urpathiyalar Nalasangam shall comply with the erection of elevated solar pan within one month from today viz., on or before 04.11.2016.

Even though the learned counsel appearing for the 8th respondent would submit that the Pollution Control Board has taken a stand on an earlier occasion that "consent" is not required for this sort of activities, it is clear from the report of the Board that a large number of persons are engaged in manufacturing Mor Melagai and production of such a large quantity of Mor Melagai has resulted in environmental disaster by making the ground water saline and unfit not only for drinking purpose but also for cultivation purpose and live stock.

In such view of the matter, we do not agree the contention of the learned counsel appearing for the 8th respondent that these units do not require "consent" from the Board. In these circumstances, we direct the State Pollution Control Board to consider the cases of 39 members who are stated to have put up elevated solar pan and comply with the other conditions imposed by the Board and to pass orders regarding grant of "consent" to those persons which shall be done within a period of 2 weeks from today.

In so far as it relates to the other manufacturers whether they are members of the 8th respondent Sangam or not, as long as they do not have "consent" from the Board and have not complied with the various conditions, including erection of elevated solar pan, we direct that those units shall not be permitted to run.

However, we make it clear that if such units comply with the conditions of construction of elevated solar pan, it will be always open to the Board, on inspection, to consider and pass orders regarding the grant of "consent". We also direct the Board to evolve guidelines in respect of this sort of activities which shall include the distance between the units and maximum number of units which shall be permitted and the guidelines shall be based on scientific study and such guidelines shall be given in the form of a scheme in respect of Mor Melagai and shall be valid throughout the State of Tamil Nadu. While considering the applications for "consent" in all these cases, the Board shall ensure that the elevated concrete solar pan shall have sufficient height from the ground level so as to see the visibility apart from known to the people seeing from the ground level.

Post this application on 09.11.2016."

24. Thereafter, on 09.12.2016, this Tribunal had perused the photographs produced by the Senior Counsel appearing for some of the project proponents to convince the Tribunal that 136 members units had already put up the construction as directed by this Tribunal and in turn, this Tribunal had directed the Pollution Control Board whenever individual project proponents made their representation to the effect that they had completed the construction, they should inspect the same and inform the Tribunal about the result.

25. On 15.12.2016, this Tribunal had considered the submissions made by the applicant as well as the unit owners and then, passed the following order:-

"We have heard the learned counsel appearing for the applicant as well as respondents.

The State Pollution Control Board (Board) in its latest report has stated that out of 153 More Milagai Units, civil works for Elevated Solar Pan are completed in respect of 136 units and no work has been started for the elevated solar pan in respect of 17 units. This was based on an inspection on 07.12.2016 stated to have been conducted.

However, Mr.NGR.Prasad, learned Senior Counsel appearing for the applicants and Mr.A.Natarajan, learned Senior Counsel appearing for some of the applicants would submit that as per the guidelines of the State Pollution Control Board, all the Members of the Association who have come out separately now have fulfilled the norms and put up Elevated Solar Pan and also connecting pipelines have been provided as prescribed by the Board. They also submit that if the officials of the Board make a visit of the Units and if they are satisfied with the norms prescribed by the Board in respect of the construction of elevated solar pan, the Board can be directed to pass appropriate orders.

We are of the considered view that suitable instructions can be issued by the Board to find out the state of affairs and pass appropriate orders. Accordingly, we direct the Board to inspect all the individual Units within two weeks from today and if they are satisfied that each of the units have complied with the requirements regarding putting up Elevated Solar Pan as well as connecting pipelines in accordance with the guidelines and units have been obtained permission from other concerned authorities, it shall be open to the Board to pass appropriate orders granting consent in respect of individual units and do activity.

We make it clear that if the Board is satisfied that the individual units have complied with all the requirements, as stated above, along with all other permissions from the other authorities, the Board shall pass appropriate orders immediately without any further loss of time.

We also make it clear that if the Members approach the authorities concerned including Panchayats, the said authorities shall pass appropriate orders granting

permission if the members comply with the requirements as prescribed by the authorities dehors the pendency of this application.

M.A.No.270 to 289 of 2016:

These applications are filed by the individual units for the purpose of impleading themselves as parties. As we have passed a comprehensive order, we are of the considered view that the presence of the individual owners will not prejudice rendering of substantial justice in these applications. Accordingly, MA.No.270 to 289 of 2016 stands allowed. The Registry shall prepare fresh memo of parties and put it in the records.

Post this application on 30.01.2017."

26. M.A. No.270 of 2016 to M.A. No.289 of 2016 were allowed and certain Mormilagai unit owners were permitted to come on record as additional Respondents No.9 to 28. In the meantime, the 4th Applicant died and his legal representatives were impleaded as additional Applicants No.7 to 10 as per order in M.A. No.269 of 2016 dated 30.01.2017.

27. The matter was taken up on 17.02.2017 and the following orders have been passed by the Tribunal:-

"The learned counsel appearing for the applicant has filed the amended memo of parties as per the earlier order.

The learned counsel appearing for the State Pollution Control Board has filed a Status Report. It is stated that out of 153 units, 133 units have provided elevated Solar Evaporation Pan and 20 units have not provided the same. The project proponents who have erected elevated Solar Evaporation Pan were requested to file the application "online" and it is stated that 116 units alone have applied for "consent" through online and remaining 17 units have not applied. Out of 116 consent applications, "consent" has been given to 97 units and remaining 19 applications are under process. We direct the Pollution Control Board to continue to process the applications and pass appropriate orders.

In respect of evolving guidelines regarding manufacture of Mor Milagai, the Board has appointed an Expert Committee as stated in paragraph 3 of the Status Report and according to the learned counsel, the Committee requires some time for the purpose of giving their report. She submits that 4 weeks time is required for the committee to complete the process and the guidelines will be issued.

The learned counsel appearing for the applicant has filed the individual affidavits of the applicants in respect of land holdings of the applicants and as to how their lands are affected, after serving copy to the learned counsel appearing for the other side.

In the meantime, any application is filed by the Units to the Panchayat for the purpose of approval, shall be processed and pass appropriate orders.

The learned counsel appearing for the applicant has filed an affidavit which states that in respect of 3 applicants viz., N.Selvaraj, N.Sivaji and S.Selvaraj, the persons have asked for water connection and the same has not been provided and it is stated that to secure drinking water, they have to travel to a long distance. The Panchayat to whom Mr.E.Manoharan, learned Government Pleader has taken notice to consider those requests and provide adequate relief to the said parties.

Post this application on 31.03.2017."

28. On 31.03.2017, after considering the submissions made by the parties, this Tribunal had passed the following order:-

"We have heard the learned counsel appearing for the applicant as well as the respondents.

Mr.T.Mohan, the learned counsel appearing for the applicant has filed a memo along with various documents and photographs to show that the agriculturists have suffered financial loss due to the activities of the Mor Milagai in the area.

The learned counsel appearing for the Tamil Nadu State Pollution Control Board (Board) has filed a status report on Mor Milagai units located in Boliammanur Village, Srirampuram Town Panchayat, Dindigul as on 23.03.2017. It is stated that there are 153 Mor Milagai Units in the area, as we have already mentioned in our earlier order. Out of the above 153 units, according to the Board, as on date 133 units have provided Elevated Solar Evaporation Pan as per the direction of the Board. Out of the said 133 units who have provided Solar Evaporation Pan, 122 units are stated to have been given 'consent' by the Board. Out of the said 122 units, 45 units have obtained trade license from the local Panchayat In fact, in our earlier order, we have directed that in the event of any unit obtaining consent applying for license, the same has to be considered on merit. Therefore, it is now clear that 45 units have been given not only 'consent' but also trade license.

Mr.N.G.R.Prasad, learned Senior Counsel appearing for these Mor Milagai Units would submit that in as much as these 45 units have complied with all the requirements in law, they should be permitted to carry on their activity, subject to the supervision of the Board. He would also submit that in accordance with the order of this Tribunal, as on date, no one of the units are carrying on any activity of manufacturing of Mor Milagai.

Mr.T.Mohan, learned counsel appearing for the applicant while vehemently contesting the statement made by learned Senior Counsel would submit that in fact

the Mor Milagai Manufacturers have been carrying on the activities inspite of the order passed by this Tribunal and therefore his submission is that they should be directed not to carry on any activity. He would also submit that since the memo filed on behalf of the applicant show that there has been enormous quantity of chloride and TDS is high and there is a prima facie case to pay interim compensation against the Mor Milagai Units.

At this point of time, it is relevant to note that respondents have not filed any reply particularly, Mor Milagai manufacturers have not filed any reply in respect of claim made by the applicant for compensation. It is only when such reply is filed and after prima facie analysing the appropriate amount of loss which would have been incurred by the agriculturists, it would be possible for this Tribunal even to direct the respondents to deposit the tentative amount. We make it clear that after hearing the other side and after filing of reply, such appropriate orders will be passed. When once it is found that farmers are affected by the activities of Mor Milagai manufacturers who are stated to have been carrying on activities without consent and without license in these areas. As on date, it is clear that 45 units have got consent and license from the competent authorities, we are of the view that it may not be fair for this Tribunal to direct the Mor Miliagai Units not to carry on the activity particularly when the 'consent' has been given by the Board subject to general and additional conditions.

Again at this point of time, it is not possible for this Tribunal to consider as to whether the conditions stipulated in the 'consent' order are enforceable or as to whether such conditions are actually followed or not. The reason is that even in case whether the conditions are not complied with by the individual manufacturers, it would be always open to the aggrieved parties to approach the appropriate authority in the manner known to law and in such event this Tribunal will pass appropriate orders.

In view of the above said reasons, we are of the considered view that the following interim order should be passed pending final decision in this application. We also make it clear that the interim order is only tentative and the parties are not entitled claim any equity and final decision will be taken by this Tribunal at the appropriate time:

1. 45 units which are stated to have obtained 'consent' as well as license from the local panchayat are entitled to carry on their activity strictly in accordance with the order of this Tribunal as well as terms and conditions of the 'consent' order issued by the Board. The Board as well as the Panchayat shall monitor as to whether the conditions are scrupulously followed by these units.

2. We make it clear that in so far as the other units which are already granted 'consent', as and when they are given license by local panchayat, they will be entitled

to carry on the activities subject to the supervision of the Board as well as local panchayat.

3. In the event of any of the units even after obtaining consent and license proceeding with the activity, either in breach of 'consent' or license conditions, it is always open to the applicant to file appropriate memo in the form of affidavit to enable this Tribunal to pass appropriate orders.

4. We also direct the Panchayat and the Board to supervise and file a Status Report on the next date of hearing.

5. The Panchayat shall provide adequate drinking water supply to all the farmers in the area by providing adequate water connections and in the event of drinking water unable to be given through pipeline, drinking water supply should be made through tanker lorries. The status shall be filed by the Panchayat on the next date of hearing.

The learned counsel appearing for the Mor Milagai Units agreed to file reply in respect of claim made by the individual farmers regarding compensation by the next date of hearing.

Post this application on 26.05.2017."

29. Thereafter, no effective orders have been passed and again, the matter was taken up on 17.09.2018 and this Tribunal had disposed of the matter by passing following order:-

"1. This O.A. has been filed under Section 18(1) read with Sections 14 and 15 of the National Green Tribunal Act, 2010, alleging contamination of ground water and soil in Boliyamanur, Thirumalairayapuram, Srirampuram, Arasamarathupatti, Brah, Anayagapuram and Kullampatti Villages comprised in Kodalvavi revenue village by illegal and unscientific disposal of used salt and solid waste by persons in Boliyamanur village who are involved in the manufacture of Mor Molaga.

2. It is stated that contamination of soil and water had increased to alarming levels, the water not potable and the ground water in the wells in the area were emitting foul smell and unfit for any use and even the livestock and other animals could not drink it. The soil has been affected adversely resulting in reduction in agricultural yield in most of the area. That there are more than 200 Mor Molaga manufacturing units operating in the area. Manufacturing process of Mor Molaga involves soaking of green chilies, curd and salt together and drying of the mixture in the sun. The solid residue comprising mostly of salt is dumped in the soil and the liquid waste generated therefrom discharged without treatment results in its percolation into the soil and the water sources causing increase in its salinity.

3. During the course of the proceedings, direction was issued upon the Tamil Nadu State Pollution Control Board (TNPCB) to submit a report after inspection of the



concerned area in order to verify on the facts stated in Original Application. In compliance of this direction, the State Pollution Control Board filed an affidavit on 16.12.2015 confirming the factual allegations and stated that direction had been issued under Section 33 (A) of the Water (Prevention and Control of Pollution) Act, 1974 to the Executive Officer, Srirampuram Town Panchayat, vide letter dated 23.08.2013 directing certain measures to be taken. It was further stated that the Srirampuram Town Panchayat vide letter dated 06.02.2014, submitted an action taken report which were as follows:-

"1. The instruction notice was issued to 138 manufactures by registered post on 09.04.2013. 2. Subsequently the instruction was published in the daily newspapers dated on 19.04.2013, 13.05.2013 and 18.05.2013. 3. During inspection on 12.07.2013, some of the manufacturers who had not provided the cement floor as per direction were found and seized their raw materials and also filed a complaint against them in the police station. 4. Till 06.02.2014, 30 manufacturers have applied to the Srirampuram Town Panchayat for getting occupational licence. The applications are under process at the Panchayat office. 5. It is respectfully submitted that the 124 manufacturers were inspected by TNPCB officials on 13.02.2014, 14.02.2014 and 18.02.2014 and found that; they have provided the cement floor drying the chilly and Solar Evaporation Pan for evaporating the wash water. The manufacturers have assured to keep the waste salt in the existing shed so as to protect the same from rain. The manufacturers are advised to apply for getting occupational licence from Srirampuram Town Panchayat."

4. It was stated that 124 units were inspected by the Pollution Control Board on 13.2.2014, 14.2.2014 and 18.2.2014 during which it was found that cemented floor for drying Red Chillies and solar evaporation pan for evaporating wash water had been provided by these units and that it had been assured by the manufacturers that they would keep the waste salt in a shed for protection from rain. Additionally, the manufacturers were advised to apply for obtaining occupational license from Srirampuram Town Panchayat.

5. Vide order dated 20.05.2016, apart from directing the Pollution Control Board to submit a better report along with analysis and reports in respect of the quantity of Mor Molaga being produced, quantity of salt used and as to where the salt, water and butter milk were being discharged. Status report was called for from the State Pollution Control Board on the number of units which had applied for consent and the number of consents granted.

6. Additional Status Report was filed by the Tamil Nadu Pollution Control Board in terms of the said order on 20.07.2017 whereby details as sought for were furnished in a tabular form. Vide order dated 5.10.2016, besides directing that the Members of Respondent No. 8 should install elevated solar pan within one month, a guideline was directed to be formulated, more particularly, in respect of the distance to be maintained between the manufacturing units and the maximum number of units which could be permitted and that the guidelines were based on a scientific study which could be applied to such units across the state of Tamil Nadu.

7. While dealing with the Status Report, question with regard to residue of remnant solid cropped up and, by order dated 06.07.2017, the Board was directed to file an affidavit to state as to how such remnants could be disposed of scientifically. By the same order matter pertaining to claim of compensation for the individual applicants in the original application was also taken up directing the learned counsel for the applicant to file particulars of the damages in the form of table. More than a year has been passed since the order dated 06.07.2017 but we find that neither the TNPCB nor the applicant has filed reports as directed.

8. Having considered the facts and circumstances which have transpired during the last more than five years, we are of the considered opinion that since the operation of the Mor Molaga units have been brought into the regulatory regime by (i) requiring the units to obtain consent to operate which earlier it did not require to; (ii) to install elevated solar evaporation panel and cement floors and (iii) that residue remnants are since being stored separately and covered by impermeable sheets, nothing would survive for consideration in this case except to direct as follows :-

1. The Pollution Control Board shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process.

2. The damages to the individual applicants caused by the discharge from the units may be assessed by the TNPCB for a reasonable sum keeping in view the fact that manufacturing units are small cottage industries, and paid to them. The Tamil Nadu Pollution Control Board shall be at liberty to seek assistance of experts from other recognized independent institutions for this purpose.

The entire exercise be completed within 3 months from today. A report of compliance shall be filed after 3 months. Report may be put up for consideration on 24th December, 2018.

With above direction this Original application is disposed of with no order as to costs."

30. Thereafter, the matter has been posted from time to time for consideration of further reports. This Tribunal has taken up the matter again on 14.01.2019 and passed the following order:-

"There is no representation for Respondent No. 3 & 4. As per order dated 17.09.2018, this Tribunal has directed the Pollution Control Board to do the following things:

- (i) The Pollution Control Board shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process.

- (ii) The damages to the individual applicants by the discharge from the units may be assessed by the Tamil Nadu Pollution Control Board for a reasonable sum keeping in view the fact that manufacturing units are small cottage industries, and paid to them. The Tamil Nadu Pollution Control Board shall be at liberty to seek assistance of experts from other recognized independent institutions for this purpose.

The Respondent No. 3 & 4 filed an Status Report dated 21.12.2018 stating that in compliance of the order dated 19.09.2018, (it is in fact dated 17.09.2018), they have constituted a Committee on 19.12.2018 with following persons:

(1) Joint Chief Environmental Engineer (Monitoring) Tamil Nadu Pollution Control Board, Madurai. (2) Dr. R BabuRajendran, Professor and Head, Department of Environmental Biotechnology, School of Environmental Science, Bharathidasan University, Tiruchirappalli- 620024 (3) Head of the Department or his nominee, Department of Environmental Sciences, Tamil Nadu Agricultural University, Coimbatore-641003 (4) Chief Engineer or his nominee Public Works Department, Water Resources Organization, Trichy Region (5) District Environmental Engineer, Tamil Nadu Pollution Control Board, Dindigul.

It is not known from the report as to whether the Committee has inspected the place and made any further report in this aspect. This shows the lethargic attitude on the part of the Pollution Control Board even in complying the directions given by this Tribunal to file an action taken report regarding the things mentioned in the order within a period of three months.

The Committee constituted is directed to make inspection within one week and submit a report showing the appropriate measure for scientific disposal of remnants of solid residue accruing in manufacturing process of Mor Molaga units and also assess the damage caused to the environment by discharge from these units for a reasonable sum keeping in view of the fact that they are small cottage industries.

The Committee is also directed to look into the matter as to how the damage caused to the environment namely polluting the ground water can be rectified. The Committee is directed to file report within one month of receipt of the order. The order of this Tribunal is directed to be 3 communicated to Tamil Nadu Pollution Control Board to be communicated the Committee to get the report within one month from today.

List this matter on 27th February, 2019."

31. On the basis of the directions issued by this Tribunal on 14.01.2019, the Tamil Nadu Pollution Control Board filed a report dated Nil, received by e-mail on 22.02.20219 which reads as follows:-

"COMPLIANCE REPORT FILED ON BEHALF OF THE 3RD & 4TH RESPONDENTS  
- TAMIL NADU POLLUTION CONTROL BOARD.

I, R.Rajamanickam, son of P.M.Ramasamy, aged about 54 years, having office at No.76, Anna Salai, Guindy, Chennai 32, do hereby solemnly affirm and sincerely state as follows:

1. I am the Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai and I am filing this compliance report on behalf of the 3rd & 4th Respondents Board

and as such I am well acquainted with the facts of the case as per records.

2. It is respectfully submitted that this Hon'ble Principal Bench has disposed this application on 19.09.2018 with the following directions to Tamil Nadu Pollution Control Board:

"1. The Pollution Control Board shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process.

2. The damages to the individual applicants caused by the discharge from the units may be assessed by the TNPCB for a reasonable sum keeping in view the fact that manufacturing units are small cottage industries, and paid to them. The TNPCB shall be at liberty to seek assistance of experts from other recognized independent institutions for this purpose.

The entire exercise be completed within 3 months from today. A report of compliance shall be filed after 3 months. Report may be put up for consideration on 24th December, 2018."

3. It is respectfully submitted that based on the directions of this Hon'ble Tribunal, Tamil Nadu Pollution Control Board has constituted a committee with the following technical experts vide proceeding No. T1/TNPCB/LAW/LA III/NGT/043618/2013, dated 20.12.2018.

1. Joint Chief Environmental Engineer (Monitoring), Tamil Nadu Pollution Control Board, Madurai.

2. Dr. R. Babu Rajendran, Professor & Head, Department of Environmental Biotechnology, School of Environmental Science, Bharathidasan University, Tiruchirappalli - 620 024.

3. Head of the Department or his nominee, Department of Environmental Sciences, Tamil Nadu Agricultural University, Coimbatore - 641

4. Chief Engineer or his nominee Public Works Department, Water Resources Organization, Trichy Region

5. District Environmental Engineer, Tamil Nadu Pollution Control Board, Dindigul.

The Committee will have the following Terms of Reference

i). The Committee shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process of mor molagai units.

ii). The Committee shall assess the damages caused by the discharge from the mor molagai units for a reasonable sum keeping in view of the fact that they are small cottage industries.

iii). Committee will furnish its report within three months. TNPCB will provide necessary arrangements for carrying out the above study.

4. It is respectfully submitted that this Hon'ble Tribunal in its order dated 14.01.2019 has directed as follows:

" The Committee constituted is directed to make inspection within one week and submit a report showing the appropriate measure for scientific disposal of remnants of solid residue accruing in manufacturing process of Mor Molagai units and also assess the damage caused to the environment by discharge from these units for a reasonable sum keeping in view of the fact that they are small cottage industries. The Committee is also directed to look into the matter as to how the damage caused to the environment namely polluting the ground water can be rectified.

The Committee is directed to file report within one month of receipt of the order..."

5. It is respectfully submitted that as per the orders of the Hon'ble Tribunal the Committee met on 02.02.2019 and visited the Boliarmmanur Village and inspected the Mor Molagai units. The Committee has also met the complainant Thiru. P.V. Subramanian and Thiru. N. Selvaraj's family members and the present status of their grievances were heard. The copy of Committee Report with photographs is submitted herewith as Annexure.

It is respectfully submitted that water samples were collected in the same locations where earlier (June 2016) water analysis investigation were made to study the present quality of well water. The Committee after careful examinations and discussion arrived at the following to comply with the directions of the Hon'ble Tribunal.

Scientific disposal of waste It is respectfully submitted that the TNPCB has already directed the units not to dispose the waste indiscriminately on ground and was asked to provide elevated solar pan so that the remaining waste from the process will be solar evaporated. to get salt, so that it can be easily handled.

Accordingly, the units have provided elevated solar evaporation pans in their units. It was noticed in some units that the residue from the process was disposed in the solar evaporation pan and the waste is converted as salt. TNPCB is studying the various alternative ways of disposing salt either in to the sea or disposing in salt pans to recover salt. Studies are under way to dispose salt through salt pans. The waste salt from these Mor Molagai units can also be sent to such salt pans to convert the same to industrial salt. Till the study is completed and Government approves the method, all the unit shall keep the waste salt collected from the pans in a separate container and stored in a room and records shall be maintained for the same.

Assessment of damage and to fix compensation It is respectfully submitted that the committee needs lot of supporting system from the following departments;

i). Crop pattern, crop area, yield, loss of revenue details from Revenue Department for the past 25 years ( as the mor molagai units were said to be in operation for about 25 years) so that the loss of agriculture year wise can be seen to arrive a conclusion.

ii). Data on soil characteristics especially soil pH, salinity (Soil Electrical Conductivity (EC)) and alkalinity i.e, sodicity, (i.e., % of Exchangeable sodium (ESP) content in soil) present in the soil and extent of area where variation or increase historically is needed to assess the extent of damage caused to the soil health from Agriculture Department.

iii). Rainfall data for the past 25 years, since it is also a parameter of assessing agricultural productivity is needed from Public Works Department.

iv). Any baseline data of ground water prior to the setting up to the mor molagai units and subsequent ground water quality change data is needed to assess the extent of damage of ground water. The data is to be provided by TWAD Board and PWD Ground Water department.

On receipt of these particulars a clear picture about the ground water and soil quality can be assessed and with the help of experts in field of economics and agricultural department compensation can be arrived at.

6. It is respectfully submitted that during the Committee's visit the complainants informed that they suspect strongly that the units are not properly using the solar evaporation pan and not storing the salt and disposing on land. The Committee when verified randomly the solar evaporation pan, deposition of dried salt was noticed showing that solar pan is utilized. Further the Committee requested the DEE, TNPCB, Dindigul to carry out the following;

i). Insist all the units to operate solar evaporation pan efficiently, collect salt in suitable containers, maintain records, and store in a room till scientific disposal is spelled.

ii). Issue notices to any units which have not provided solar evaporation pan or not applied to TNPCB.

iii). Request the Local body to issue notices to not applied units as well as non complied units, under Local Bodies Act and Public Health Act.

iv). Address Joint Director, Agricultural to conduct study and report on the extent of damage causes.

v). Address Revenue Department to furnish revenue loss historically.

vi). Address PWD ground water and TWAD Board to give their opinion based on data of quality of water and its deterioration and the extent of land affected from their point of view.

vii). The DEE shall get the water sample analyzed through District Environmental Laboratory, Dindigul and furnish report to know the present status of ground water.

7. It is respectfully submitted that after getting the historical data on crop pattern, crop area, yield, loss of revenue and with the help of experts in the field of economics and agricultural department compensation can be arrived at.

Under the above circumstances, it is humbly prayed that this Hon'ble National Green Tribunal (Principal Bench) may be pleased to pass such further or other orders as it may deem fit and proper in the facts and circumstances of this case and thus render justice."

32. They annexed the report of the committee signed by some of the members on 02.02.2019 along with certain photographs which reads as follows:-

"Committee report on Mor Milagai manufacturing units, Boliammanur Village, Dindigul West Taluk, Dindigul District in connection with Hon'ble NGT order dated 19.09.2018.

As per instruction the committee met on 02.02.2019 and visited the Boliammanur Village and the Mor Milagai units were inspected. The committee also met the complainant Thiru. P V. Subramanian and Thiru. N.Selvaraj's family members and the present status of their grievances were heard. Water samples were collected in the same locations where earlier water analysis investigation were made to study the present quality of well water. The committee after careful examinations and discussion arrived at the following to comply with the directions of the Hon'ble NGT (SZ).

The first direction to find out scientific disposal of waste remaining from the process.

In this regard, the TNPCB has already directed the units to not to dispose the waste indiscriminately on ground and asked to provide elevated solar pan so that the remaining waste from the process will be solar evaporated to get salt, so that it can be easily handled. Accordingly the units have provided elevated solar evaporation pans in their units. It was noticed in some units that the residue from the process was disposed in the solar evaporation pan and the waste is converted as salt. The TNPCB is studying the various alternative ways of disposing salt either in to the sea or disposing in salt pans to recover salt. Studies are under way to dispose salt through salt pans. This remaining waste salt can be sent to such salt pans to convert to industrial salt. Till the study is completed and Government approves the method, all the unit shall keep the waste salt collected from the pans in a separate container and stored in a room and records shall be maintained for the same.

Second direction on assessment of damage and to fix compensation, the committee needs lot of supporting system from the following departments.

1) Crop pattern, crop area, yield, loss of revenue details from revenue department for the past 25 years (as the Mor Milagai units were said to be in operation for about 25

years) so that the loss of agriculture year.

2). The data on soil characteristics especially soil pH, salinity {Soil Electrical conductivity (EC)} and alkalinity i.e. sodicity, (ie % of Exchangeable sodium (ESP) content in soil) present in the soil and extent of area where variation or increase historically is needed to assess the extent of damage caused to the soil health from Agriculture department.

3) The rainfall data for the past 25 years, since it is also a parameter of assessing agricultural productivity is needed from PWD.

4) Any baseline data of ground water prior to the setting up to the mor milagai units and subsequent ground water quality change data is needed to assess the extent of damage of ground water. The data is to provided by TWAD Board and PWD ground water department.

On receipt of these particulars a clear picture about the ground water and soil quality can be assessed and with the help of experts in field of economics and agricultural department compensation can be arrived at During the committee's visit the complainants informed that they suspect strongly that the units are not properly using the solar evaporation pan and not storing the salt and disposing on land. The committee when verified, randomly the solar evaporation pan, deposition of dried salt was noticed showing that solar pan is utilized.

The DEE, TNPCB was asked to carry out the following; i. Insist all the units to operate solar evaporation pan efficiently, collect salt in suitable containers, maintain records, and store in a room till scientific disposal is spelled.

ii. Issue notices to any units which have not provided solar evaporation pan or not applied to TNPCB.

iii. Request local body to issue notices to not applied units as well as non complied units from their angle, under Local bodies act and Public health act.

iv. Address Joint Director Agricultural to conduct study and report on the extent of damage caused.

v. Address Revenue department to furnish revenue loss historically. vi. Address PWD ground water and TWAD to give opinion based on details of quality of water and its deterioration and the extent of land affected from their angle.

vii. The DEE shall get the sample analyzed through DEL Dindigul and furnish report to know the present status of ground water.

This action of the committee shall be reported to the NGT through the TNPC Board's Law section.



After arriving this decision the committee visit came to an end."

33. The above report was considered by this Tribunal on 27.02.2019 and then, passed the following order:-

"4. We have examined the report once again and find that the report does not contain any tangible action having been taken by the PCB. The Committee appears to have made certain suggestions to the TNPCB, Dindigul to carry out some exercise. Surprisingly actions suggested only appears to be repetitive of what had already been undertaken during the course of the proceedings which commenced from the year 2013. Orders commencing from 09.09.2016 and culminating on 06.07.2017 would clearly indicate that the units have already installed the Solar evaporation pans and the manufacturers had undertaken to store waste salt in a shed for protection from rain. It was in view of these that the final directions had been issued vide order dated 17.09.2018.

5. Even the matter relating to assessment of damages appears to have kept at a limbo opining that a study will have to be conducted to arrive at the extent of damage caused. It is stated that historical data pertaining to rainfall of past 25 years has to be collected for the purpose as it is also a parameter for assessing agricultural productivity adopted by the public works department.

6. It is disappointing to note that the State Pollution Control Board has not been taking up the matter with the seriousness it deserves. Approach is obviously casual and indifferent without any focus. For the State PCB the matter may be small in terms of financial implications involved but, so far as the environment is concerned, we consider it to be a serious one as it involves contamination of ground water which in turn have implication on the livelihood of the farmers.

7. In the backdrop of the circumstances, we direct the Tribunal PCB to ensure that the order dated 17.09.2018 is complied with in its letter and spirit and all the questions raised by the Committee in its report dealt with expeditiously. To reemphasize we once again direct them to suggest:-

i. Scientific method to be adopted for disposal of the remnants; ii. Assess the damage caused by the discharge from the units which would bring its ambit loss to environment, land and water, as well as to the agriculture.

8. Considering that enough time has been provided to the Board, the entire exercise shall be completed within a period of one month from hence. Against this performance guaranteed Rs. 25 lakhs shall be deposited by the TNPCB with the CPCB making it clear that in the event the timeline is not followed, the performance guarantee shall be forfeited. Further, a penalty of Rs. 10,000 per day shall be liable to be paid by the team PCB for every day's delay thereafter."

34. The Pollution Control Board had produced the report prepared by the committee in respect of assessment of the damage caused received by this Tribunal on 29.03.2019 which reads as follows:-

35. The Pollution Control Board also filed an independent compliance report dated Nil, received on 29.03.2019 which reads as follows:-

**"COMPLIANCE REPORT FILED ON BEHALF OF THE 3RD & 4TH RESPONDENTS  
- TAMIL NADU POLLUTION CONTROL BOARD.**

I, R.Rajamanickam, son of P.M.Ramasamy, aged about 54 years, having office at No.76, Anna Salai, Guindy, Chennai-32, do hereby solemnly affirm and sincerely state as follows:

1. I am the Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai and I am filing this status report on behalf of the 3rd & 4th Respondents Board and as such I am well acquainted with the facts of the case as per records.

2. It is respectfully submitted that this Hon'ble Principal Bench has disposed this application on 17.09.2018 with the following directions to Tamil Nadu Pollution Control Board:

"i. The Pollution Control Board shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process.

ii. The damages to the individual applicants caused by me discharge from the units may be assessed by the Tamil Nadu Pollution Control Board for a reasonable sum keeping in view the fact that manufacturing units are small cottage industries, and paid to them. The Tamil Nadu Pollution Control Board shall be at liberty to seek assistance of experts from other recognized independent institutions for this purpose".

3. It is respectively submitted that based on the directions of this Hon'ble Principal Bench, the Tamil Nadu Pollution Control Board has constituted a technical expert committee with the following terms of reference.

i). The Committee shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process of mor molagai units.

ii). The Committee shall assess the damages caused by the discharge from the mor molagai units for a reasonable sum keeping in view of the fact that they are small cottage industries.

Accordingly, the Committee inspected the Mor Molagai units, petitioners lands and the surrounding areas in Boliarmmanur village on 02.02.2019 and submitted a report. The Committee report was submitted to this Hon'ble Principal Bench.

4. It is respectfully submitted that this Hon'ble Principal Bench in its order dated 27.02.2019 among others has directed the Tamil Nadu Pollution Control Board as follows:

"To ensure that the order dated 17.09.2018 is complied with in its letter and spirit and all the questions raised by the Committee in its report dealt with expeditiously. To reemphasize we once again direct them to suggest:

i. Scientific method to be adopted for disposal of the remnants; ii. Assess the damage caused by the discharge from the units which would bring its ambit loss to environment, land and water, as well as to the agriculture."

5. It is respectfully submitted that in order to comply with the Hon'ble Principal Bench direction in its letter and spirit, one more Technical Expert Member (i.e) Dr. B. Jeyaraman, Former Under Secretary, Loss of Ecology (Prevention and Payment of Compensation) Authority, Chennai was included in the Committee vide TNPCB proceeding No. TNPCB/LAW/LA- II/NGT/043618/2013, dated 02.03.2018. The committee has inspected the area on 06.03.2019 and 07.03.2019 and submitted its report. The Committee report is submitted as annexure.

6. It is respectfully submitted that with respect to (i) Measures to be adopted for scientific disposal of the remnants of solid residue, the following are submitted:

The average quantity of waste salt generated by each unit is around 0.25kg/15days (scraped salt from solar evaporation pan). This salt is collected and packed in polyethylene bags and stored in closed shed in their premises. Each bag can contain of 1.23 cu.ft salt which is about 50 kgs in weight. Accordingly if the unit is operated for eight years, it will generate around 50 kg of salt (one bag of salt). All the units have provided closed shed of capacity 226 cu.ft for the storage of scrapped wastes salts. Hence, they can store the waste salt for several years in the shed, which can be monitored by the officials of TNPCB in their regular inspection.

As per the committee report, there are 130 mor molagai units in Bolihammanur area having accumulated quantity of 6557.5 kg of waste salt (mainly sodium chloride)

7. It is respectfully submitted that in Tamil Nadu, Textile Dyeing industries and the Tannery industries have provided Zero Liquid Discharge plants for the treatment of trade effluent. These plants generate huge quantity of mixed salts mainly sodium chloride recovered from the treatment process. At present these salts are stored in the industries and Common Effluent Treatment Plant (CETP) premises. TNPCB is taking various steps to find out scientific method for disposal of these salts.

i. In August 2017, an Expert Committee was constituted by TNPCB with members including from IIT Madras, National Institute of Ocean Technology, Central Ground Water Board, Institute of Water Studies to explore the possibility of disposing the salt by three options (i) Reuse of residual salt in Textile Tannery sectors, (ii). Disposal of salt into deep sea, (iii). Disposal of salt in Secured

Land fill. The committee has suggested for recovery of salt for industrial use through treatment.

ii. In September 2017, CSIR - Central Salt & Marine Chemicals Research Institute (CSMCRI), Bhavangar, Gujarat was engaged by TNPCB to carry out a scientific study for the recovery of sodium chloride and sodium sulphate. The study involves washing of the salt so as to upgrade the quality of salt (sodium chloride) and separation of sodium sulphate. The sodium chloride salt obtained will be used in the chlor alkali unit as main raw material. CSMCRI has conducted the study. Series of meeting with Chlor Alkali units and CSMCRI was conducted. The last meeting was conducted on 19.03.2019. In the meeting CSMCRI has submitted its study result. The sodium chloride salt recovered has met almost all the specifications as required by the Chlor Alkali units except aluminium and manganese. In order to meet the required quality, the chlor alkali units are requested to make a pilot scale study by mixing of washed salt (purified salt as per CSMCRI study) with regular salt for brine solution preparation and submit a report. The study is in progress. Once the washed salt meet the requirement, the accumulated salt can be processed and used in the chlor alkali units.

iii. CPCB vide letter No. B- 33014/7/2017-18/1PC-11, dated 03.08.2017 has permitted TNPCB to take trial run for "Recovery of salt for Industrial Use through Treatment of Waste Salts from Textile Processing Industries through Salt Pans". Based on the above, M/s. Arunachala Enterprises, S.F. No 128/30.etc Ahara Vadomhanur Village at Vadaranyam taluk. Nagapattinam District, Tamilnadu was permitted to conduct a trial run for recovery of industrial salt by way of dilution and filtration, crystallization process. (i.e). The salt is mixed with ground / sea water in the collection cum mixing tank. The salt solution is prepared upto 1,00,000 mg/L TDS concentration level. Coagulant is added to settle the impurities as sludge. The supernatant from the collection tank is pumped for further treatment through series of cartridge filters. The outlet of cartridge filter is further treated in the membrane filtration system. The permeate from membrane filtration is stored in salt pan for solar evaporation to get dried salt. This salt is used as industrial grade salt. Now the unit is taking trial run and the final results are awaited.

8. It is respectfully submitted that on successful completion of trial studies and after getting the approval from CPCB, TNPCB will be able to direct the industries to dispose the salt for the beneficial use through the approved treatment process. In such case, the salt accumulated in the Mor Molagai units can also be disposed for beneficial uses. Until then, being a very meager quantity, they can store the salt in a closed shed and it shall be monitored by TNPCB officials periodically.

9. It is respectfully submitted that with respect to (ii) Assessment of damage caused by the discharge from the units the following are submitted:

The Committee has inspected the Mor Molagai units, petitioners land and the surrounding areas on 06.03.2019 and 07.03.2019 in the presence of revenue officials, petitioners and TNPCB officials. It is respectfully submitted that this Hon'ble Tribunal in its order dated 17.9.2018 has directed the Board to assess the damages caused to the individual applicants due to discharge from the units. The Hon'ble Tribunal has also directed that the damages may be assessed for a reasonable sum

keeping in view of the fact that manufacturing units are small cottage industries. Accordingly, the committee has carried out inspection and arrived compensation to the following six applicant's land.

i). Thiru P.V. Subramanian, Slo. P. Vellachamy, Arasamarathupatti, Neelamalaikottai Post, Dindigul. ii). Thiru G. Kanthasamy, Slo. Govindapa Gounder, Arasamarathupatti, Neelamalaikottai Post, Dindigul. iii). Thiru N. Selvaraj, Slo. China Nachimuthu, Bramanayagapuram, Neelamalaikottai Post, Dindigul. iv). Thiru N. Sivaji, Slo. Nadunachimuthu, Bramanayagapuram, Neelamalaikottai Post, Dindigul. v). Thiru \$. Selvaraj, Slo. Subbiya Gounder, Bramanayagapuram, Neelamalaikottai Post, Dindigul. vi). Thiru N. Sakthivel, Slo. Periyannachimuthu, Bramanayagapuram, Neelamalaikottai Post, Dindigul During the inspection, the extent of damage was assessed. The Committee has collected soil samples and well water samples in the petitioner's land and the surrounding areas, water and soil samples in unpolluted areas also. Based on sampling sites, the boundary was fixed for the affected lands with reference to distance of 500 metres, 1000 metres and 1500 metres and five Kilometres from the location of industries. The Committee also collected rain fall data, crop cultivated in that area, yield of the crops etc. After detailed study and analysis of data, the committee submitted its report.

10. It is respectfully submitted that, as the history of the case, one of the applicant Thiru P.V. Subramanian has made representation in the meeting of the agriculture grievance meeting held at Dindigul Collector office on 21.02.2012 regarding pollution of the Mor Molagai units and deterioration of their agricultural lands. Considering this, and nature of the mor molagai units as a cottage industries, the committee has assessed the damage caused and the compensation payable for the past ten years period to the six applicants as follows:

Yield loss compensation payable for all petitioners S.No. Name Compensation payable for 10 one year (in Rupees) years (in Rupees) 1 P.V. 65,370/- 6,53,700/-

Subramanian 2 G. Kanthasamy 35,828/- 3,58,280/-

3 N. Selvaraj 1,17,475 11,68,990/-

4 N. Sivaji Coconut 57,584/- 5,75,840/- 7,99,022/-

		Teak wood 2,23,182/- *	2,23,182/- *
5.	S. Selvaraj	21,594/-	2,15,940/-
6.	N. Sakthivel	67,966/-	6,79,660/-
	Total	5,88,999/-	38,75,592/-

\* The Teak Wood yield loss value will not vary for five years, ten years and fifteen years multiplication. Because Teak Wood calculation already for twenty years.

The detailed working sheet for the arrival of compensation is given in the committee report. As per the committee report, there are 130 mor molagai units are in operation in Boliammanur village, Dindigul district.

Under the above circumstances, it is humbly prayed that this Hon'ble National Green Tribunal (Principal Bench) may be pleased to pass such further or other orders as it may deem fit and proper in the facts and circumstances of this case and thus render justice."

36. This Tribunal had considered the report on 22.04.2019 and adjourned the case to 20.05.2019 for filing objections (if any) to the report by the applicant and others.

37. The 8th Respondent filed objection to the report of the committee, dated 27.02.2019 and they have pointed out certain irregularities in the committee report. They also questioned the values taken for the analysis of soil and water and the assessment regarding its impact. They also mentioned that in Pg. 51 of the report, the tabulation in respect of soil taken from the properties of the applicant and one Karupan and it was mentioned in the report that the soil taken from the applicant's land was contaminated while the soil taken from the property of the above said Karupan was mentioned as unpolluted. All these lands are situated very nearby. They have not explained the reason as to why such a discrepancy happened in the analysis report in respect of two properties which were situated nearby. They also stated that the yield and assessment of compensation made in respect of each applicant was excessive and without any basis. Considering the turnover and profit account of the Mormilagai manufacturers, the quantum of compensation is excessive and the details of the yield etc. taken from the applicants land was without any basis and all imaginary.

38. The Tamil Nadu Pollution Control Board also filed another report received by e-mail dated 17.08.2019 which reads as follows:-

"COMPLIANCE REPORT FILED ON BEHALF OF THE 3RD & 4TH RESPONDENTS  
- TAMIL NADU POLLUTION CONTROL BOARD.

I, R. Rajamanickam, son of P.M.Ramasamy, aged about 54 years, having office at No.76, Anna Salai, Guindy, Chennai-32, do hereby solemnly affirm and sincerely state as follows:

1. I am the Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai and I am filing this status report on behalf of the 3rd & 4th Respondents Board and as such I am well acquainted with the facts of the case as per records.

2. It is respectfully submitted that this Hon'ble Principal Bench has disposed this application on 17.09.2018 with the following directions to Tamil Nadu Pollution Control Board:

"i. The Pollution Control Board shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process.

ii. The damages to the individual applicants caused by the discharge from the units may be assessed by the Tamil Nadu Pollution Control Board for a reasonable sum keeping in view the fact that manufacturing units are small cottage industries, and paid to them. The Tamil Nadu Pollution Control Board shall be at liberty to seek assistance of experts from other recognized independent institutions for this purpose".

3. It is respectively submitted that based on the directions of this Hon'ble Principal Bench, the Tamil Nadu Pollution Control Board has constituted a technical expert committee with the following terms of reference.

i). The Committee shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process of mor molagai units.

ii). The Committee shall assess the damages caused by the discharge from the mor molagai units for a reasonable sum keeping in view of the fact that they are small cottage industries.

Accordingly, the Committee inspected the Mor Molagai units, petitioners lands and the surrounding areas in Boliarmmanur village on 02.02.2019 and submitted a report. The Committee report was submitted to this Hon'ble Principal Bench.

4. It is respectfully submitted that this Hon'ble Principal Bench in its order dated 27.02.2019 among others has directed the Tamil Nadu Pollution Control Board as follows:

"To ensure that the order dated 17.09.2018 is complied with in its letter and spirit and all the questions raised by the Committee in its report dealt with expeditiously. To reemphasize we once again direct them to suggest:

i. Scientific method to be adopted for disposal of the remnants; ii. Assess the damage caused by the discharge from the units which would bring its ambit loss to environment, land and water, as well as to the agriculture."

5. It is respectfully submitted that in order to comply with the Hon'ble Principal Bench direction in its letter and spirit, one more Technical Expert Member (i.e) Dr. B. Jeyaraman, Former Under Secretary, Loss of Ecology. (Prevention and Payment of Compensation) Authority, Chennai was included in the Committee vide TNPCB proceeding No. TNPCB/LAW/LA- III/NGT/043618/2013, dated 02.03.2018. The committee has inspected the area on 06.03.2019 and 07.03.2019 and submitted its report. The Committee report is submitted as annexure.

6. It is respectfully submitted that with respect to (i) Measures to be adopted for scientific disposal of the remnants of solid residue, the following are submitted:

The average quantity of waste salt generated by each unit is around 0.25kg/15days (scrapped salt from solar evaporation pan). This salt is collected and packed in polyethylene bags and stored in closed shed in their premises. Each bag can contain of 1.23 cu.ft salt which is about 50 kgs in weight. Accordingly if the unit is operated for eight years, it will generate around 50 kg of salt (one bag of salt). All the units have provided closed shed of capacity 226 cu.ft for the storage of scrapped wastes salts. Hence, they can store the waste salt for several years in the shed, which can be monitored by the officials of TNPCB in their regular inspection.

As per the committee report, there are 130 mor molagai units in Bolihammanur area having accumulated quantity of 6557.5 kg of waste salt (mainly sodium chloride).

7. It is respectfully submitted that in Tamil Nadu, Textile Dyeing industries and the Tannery industries have provided Zero Liquid Discharge plants for the treatment of trade effluent. These plants generate huge quantity of mixed salts mainly sodium chloride recovered from the treatment process. At present these salts are stored in the industries and Common Effluent Treatment Plant (CETP) premises. TNPCB is taking various steps to find out scientific method for disposal of these salts.

i. In August 2017, an Expert Committee was constituted by TNPCB with members including from IIT Madras, National Institute of Ocean Technology, Central Ground Water Board, Institute of Water Studies to explore the possibility of disposing the salt by three options (i) Reuse of residual salt in Textile / Tannery sectors, (ii). Disposal of salt into deep sea, (iii). Disposal of salt in Secured Land fill. The committee has suggested for recovery of salt for industrial use through treatment ii. In September 2017, CSIR - Central Salt & Marine Chemicals Research Institute (CSMCRI), Bhavangar, Gujarat was engaged by TNPCB to carry out a scientific study for the recovery of sodium chloride and sodium sulphate. The study involves washing of the salt so as to upgrade the quality of salt (sodium chloride) and separation of sodium sulphate. The sodium chloride salt obtained will be used in the chlor alkali unit as main raw material. CSMCRI has conducted the study. Series of meeting with Chlor Alkali units and CSMCRI was conducted. The last meeting was conducted on 19.03.2019. In the meeting CSMCRI has submitted its study result. The sodium chloride salt recovered has met almost all the specifications as required by the Chlor Alkali units except aluminium and manganese. In order to meet the required quality, the chlor alkali units are requested to make a pilot scale study by mixing of washed salt (purified salt as per CSMCRI study) with regular salt for brine solution preparation and submit a report. The study is in progress. Once the washed salt meet the requirement, the accumulated salt can be processed and used in the chlor alkali units.

ii. CPCB vide letter No. B- 33014/7/2017-18/IPC-II, dated 03.08.2017 has permitted TNPCB to take trial run for "Recovery of salt for Industrial Use through Treatment of Waste Salts from Textile Processing Industries through Salt Pans". Based on the above, M/s. Arunachala Enterprises, S.F. No 128/30.etc Ahara Nagapattinam Kadammanur Village at Vadaranyam taluk, District, Tamil Nadu was permitted to conduct a trial run for recovery of industrial salt by way of dilution and filtration, crystallization process. (i.e). The salt is mixed with ground / sea water in the collection cum mixing



tank. The salt solution is prepared upto 1,00,000 mg/L TDS concentration level. Coagulant is added to settle the impurities as sludge. The supernatant from the collection tank is pumped for further treatment through series of cartridge filters. The outlet of cartridge filter is further treated in the membrane filtration system. The permeate from membrane filtration is stored in salt pan for solar evaporation to get dried salt. This salt is used as industrial grade salt. Now the unit is taking trial run and the final results are awaited.

8. It is respectfully submitted that on successful completion of trial studies and after getting the approval from CPCB, TNPCB will be able to direct the industries to dispose the salt for the beneficial use through the approved treatment process. In such case, the salt accumulated in the Mor Molagai units can also be disposed for beneficial uses. Until then, being a vey meager quantity, they can store the salt in a closed shed and it shall be monitored by TNPCB officials periodically.

9. It is respectfully submitted that with respect to (ii) Assessment of damage caused by the discharge from the units the following are submitted:

The Committee has inspected the Mor Molagai units, petitioners land and the surrounding areas on 06.03.2019 and 07.03.2019 in the presence of revenue officials, petitioners and TNPCB officials. It is respectfully submitted that this Hon'ble Tribunal in its order dated 17.9.2018 has directed the Board to assess the damages caused to the individual applicants due to discharge from the units. The Hon'ble Tribunal has also directed that the damages may be assessed for a reasonable sum keeping in view of the fact that manufacturing units are small cottage industries. Accordingly, the committee has carried out inspection and arrived compensation to the following six applicant's land.

i). Thiru P.V. Subramanian, S/. P. Vellachamy, Arasamarathupatti, Neelamalaikottai Post, Dindigul.

ii). Thiru G. Kanthasamy, S/o. Govindapa Gounder, Arasamarathupatti, Neelamalaikottai Post, Dindigul.

iii). Thiru N. Selvaraj, Slo. China Nachimuthu, Bramanayagapuram, Neelamalaikottai Post, Dindigul.

iv). Thiru N. Sivaji, Slo. Nadunachimuthu, Bramanayagapuram, Neelamalaikottai Post, Dindigul.

v). Thiru S. Selvaraj, Slo. Subbiya Gounder, Bramanayagapuram, Neelamalaikottai Post, Dindigul.

vi). Thiru N. Sakthivel, Slo. Periyanchimuthu, Bramanayagapuram, Neelamalaikottai Post, Dindigul During the inspection, the extent of damage was assessed. The Committee has collected soil samples and well water samples in the

petitioner's land and the surrounding areas, water and soil samples in unpolluted areas also. Based on sampling sites, the boundary was fixed for the affected lands with reference to distance of 500 metres, 1000 metres and 1500 metres and five Kilometres from the location of industries. The Committee also collected rain fall data, crop cultivated in that area, yield of the crops etc. After detailed study and analysis of data, the committee submitted its report.

10. It is respectfully submitted that, as the history of the case, one of the applicant Thiru P.V. Subramanian has made representation in the meeting of the agriculture grievance meeting held at Dindigul Collector office on 21.02.2012 regarding pollution of the Mor Molagai units and deterioration of their agricultural lands. Considering this, and nature of the mor molagai units as a cottage industries, the committee has assessed the damage caused and the compensation payable for the past ten years period to the six applicants as follows:

\* The Teak Wood yield loss value will not vary for five years, ten years and fifteen years multiplication. Because Teak Wood calculation already for twenty years.

The detailed working sheet for the arrival of compensation is given in the committee report. As per the committee report, there are 130 mor molagai units are in operation in Boliammanur village, Dindigul district Under the above circumstances, it is humbly prayed that this Hon'ble National Green Tribunal (Principal Bench) may be pleased to pass such further or other orders as it may deem fit and proper in the facts and circumstances of this case and thus render justice."

39. The applicant had produced an independent report prepared by Prof. Dr. K.K. Krishna Moorthy signed by the expert on 14.08.2019 which reads as follows:-

"Report on the damages done and the compensation claimed due the usage of the effluent obtained in the process of making "MorMilagai"

in the District of Dindigul.

The effluent coming out of the units making mormilagai in the District of Dindigul causes the following damages to the soil into which the effluent is let in:

Physical Properties:

The physical properties of the soil given below are affected badly:

1. Pore Space (clogging takes place)
2. Soil aeration
3. Water/ Moisture holding capacity of the soil

4. Permeability of water and nutrients
5. Structure is damaged and the crumb formation is affected
6. It is difficult for the roots to penetrate
7. Overall the structure and texture of the soil is affected resulting in the inability of the soil to support crop growth and the yields declined considerably.

Chemical Properties:

1. The pH of the soil attains salinity and over a period of time alkalinity going up to 8 to 9; at this pH crop growth is stunted and the yields decline
2. The EC of the soil (Electrical conductivity) goes beyond 4 to 5mmhos leading to salinity (while the normal and ideal EC is less than 2mmhos affecting the availability of nutrients to the crop
3. The sodium content of the soil becomes high leading to alkalinity which again curbs the growth of crops
4. The C : N ratio becomes very wide to the extent of 50:1 while the normal and ideal ration is only 12:1. This affects nutrient absorption by the plants and limits crop growth

Biological Properties:

Because of the effect of the pollutants, the microbial load consisting of very many beneficial microbes like Ammonifier, Nitrosomonas, Nitrobacter, Azotobacter, etc., have been annihilated. Thus, the nutrient availability and uptake by the plants are hampered. Further, the C:N Ratio, the optimal being 12:1 has widened to the abnormal level of 50:1. The index of good soil fertility is the optimum level of cation exchange and anion exchange capacity which are very much upset under the polluted conditions.

In order to reclaim the soil and bring to the original, normal fertility of the soil, the following actions have to be taken.

1. Sowing of green manure crops like Sunhemp, Daincha, Kolinji, Pilli pesara, cowpea, green gram, black gram, horse gram, etc., has to be done; allowed to grow till flowering stage and incorporated into the soil thoroughly. This practice of sowing and ploughing of green manures have to be repeated atleast three times a year
2. Gypsum (Calcium sulphate) has to be applied @ 2.5 tons/acre and incorporated well into the soil.

3. Proper and adequate drainage has to be arranged so that the wash water containing harmful elements like Sodium and pollutants are washed away completely. At this stage, the pH and EC of the soil have to be measured and if they are optimal, crops could be grown.

In order to implement the above said practices and procedures, an amount of Rs. 7500/- (Rupees Seven Thousand Five Hundred only) has to be spent by the owner of the land. This includes the cost of green manures, ploughing, cost of gypsum and labour for incorporating it."

40. Respondents No.3 & 4/Tamil Nadu Pollution Control Board filed a compliance report dated Nil, received on 18.10.2019 which reads as follows:-

**"COMPLIANCE REPORT FILED ON BEHALF OF THE 3RD & 4TH RESPONDENTS  
- TAMIL NADU POLLUTION CONTROL BOARD.**

I, R. Ramasubbu, son of V. Ramasamy, aged about 567 years, having office at No.76, Anna Salai, Guindy, Chennai-32, do hereby solemnly affirm and sincerely state as follows:

1. I am the Joint Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai and I am filing this compliance report on behalf of the 3rd & 4th Respondents Board and as such I am well acquainted with the facts of the case as per records.

2. It is respectfully submitted that this Hon'ble Principal Bench has disposed this application on 17.09.2018, with the following directions to Tamil Nadu Pollution Control Board:

"i. The Pollution Control Board shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process.

ii. The damages to the individual applicants caused by the discharge from the units may be assessed by the Tamil Nadu Pollution Control Board for a reasonable sum keeping in view the fact that manufacturing units are small cottage industries, and paid to them. The Tamil Nadu Pollution Control Board shall be at liberty to seek assistance of experts from other recognized independent institutions for this purpose".

3. It is respectively submitted that based on the directions of this Hon'ble Principal Bench, the Tamil Nadu Pollution Control Board has constituted a technical expert committee vide proceeding dated 19.12.2018 with the following terms of reference.

i). The Committee shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process of mor molagai units.

ii). The Committee shall assess the damages caused by the discharge from the mor molagai units for a reasonable sum keeping in view of the fact that they are small cottage industries.

Accordingly, the Committee inspected the Mor Molagai units, petitioners lands and the surrounding areas in Boliarmmanur village, Dindigul west Taluk, Dindigul district on 02.02.2019 and submitted a report. The Committee report was submitted to this Hon'ble Principal Bench.

4. It is respectfully submitted that this Hon'ble Principal Bench in its order dated 27.02.2019 among others has directed the Tamil Nadu Pollution Control Board as follows:

"To ensure that the order dated 17.09.2018 is complied with in its letter and spirit and all the questions raised by the Committee in its report dealt with expeditiously. To reemphasize we once again direct them to suggest:

i. Scientific method to be adopted for disposal of the remnants; ii. Assess the damage caused by the discharge from the units which would bring its ambit loss to environment, land and water, as well as to the agriculture.

iii. To suggest a plan of remediation of the environmental damage caused".

5. It is respectfully submitted that in order to comply with the Hon'ble Principal Bench direction in its letter and spirit, one more Technical Expert Member (i.e) Former Under Secretary, Loss of Ecology (Prevention and Payment of Compensation) Authority, Chennai was included in the Committee vide TNPCB proceeding No. TNPCB/LAW/LA-

III/NGT/043618/2013, dated 02.03.2018. The committee has inspected the area on 06.03.2019 and 07.03.2019 and submitted its report. The Committee report was submitted to this Hon'ble Tribunal.

6. It is respectfully submitted that the Hon'ble Tribunal during the hearing on 19.8.2019, has directed the respondent Board to file an action plan with detailed report based on the Joint Committee report. In this connection the following are submitted.

Earlier, the Technical Expert Committee constituted by the Board has carried out a detailed study and submitted a report in March 2019 titled 'Assessment of the damage caused by the discharge from the Mor Milagai units which would bring its ambit loss to environment, land and water as well as to the agriculture yield loss in connection with Hon'ble NGT order dated 27.02.2019 in O.A. No. 517 /2018 with regard to petition filed by the petitioners Boliarmmanur village, Dindigul west Taluk, Dindigul District, as stated in para (5) above. The NGT order has three parts Part-1 : Scientific method to be adopted for disposal of the remnants.

7. It is respectfully submitted that as per the committee report, the remnants from the mor milagai units are scrapped salt from solar evaporation pans. It is now collected and packed in polyethylene bags and stored in closed shed by each unit. The stock in each unit varies from 18 kgs to 400 kgs. The overall stock put together is about 6557.5 kgs. The salt sample was analyzed in a NABL

Accredited laboratory at Chennai and found that the salt is non-hazardous nature. Since the salt is non hazardous nature, it can be used for any industrial grade beneficial use. Therefore, the Mor Milagai units has proposed to send the entire quantity of accumulated salt to M/s. Arunachalla Enterprises, Vedaranyam, Nagapattinum District for recovery of industrial grade salt within one month. Copy of the undertaking given by the units is submitted herewith as Annexure - I. Once the accumulated salt is disposed, the regular generation of salt will be collected in polyethylene bags, stored in closed shed and will be sent to the above said unit for recovery of industrial grade salt use. Hence there will not be any impact to the environment. This shall be monitored by TNPCB.

Part-II: Assess the damage caused and payment of compensation to the applicants The Committee has made assessment for six applicants land who have made petition before this Hon'ble Tribunal and given the report as follows. The compensation is worked out for 10 years period.

\* The Teak Wood yield loss value will not vary for five years, ten years and fifteen years multiplication. Because Teak Wood calculation already for twenty years.

As per the committee report, there are 130 mor milagai units in operation in Boliammanur village area. The above amount of Rs. 38,75,592/- is to be apportioned to all these 130 units, based on the consented capacity and the number days of operation. Therefore the Board vide letter dated 17.09.2019 has requested the committee to apportion the amount of Rs. 38,75,592/- to the 130 units so as to collect the same on polluter pay principle. Based on that the committee has apportioned the amount to the 130 units and submitted a report. The amount payable varies from Rs. 569/- to Rs. 2,73,064/- which depends on consented capacity and number days in operation. The Committee report is submitted herewith as Annexure - II. The Committee report contains the amount payable by each unit.

#### Collection and dispersion of the amount

8. It is respectfully submitted that the committee has suggested the following ways and means for collection and dispersion of the compensation amount. The committee has referred the orders passed by the Hon'ble Supreme Court of India in W.P (Civil) No. 914 of 1991 filed by the Vellore Citizen Forum Vs Union of India & Others against the pollution caused by the tanneries in Vellore District. The Hon'ble Apex Court in the judgment delivered on August 28, 1996 laid down the 'Precautionary Principle and the 'Polluter Pays Principle' as essential features of Sustainable Development. Based on the orders of the Hon'ble Apex court, the Ministry of Environment and Forest, Government of India vide notification S.O. No. 671(E), dated 30.9.1996 has constituted Loss of Ecology (Prevention and Payment of Compensation) Authority, 1996, to assess the loss of the ecology and environment in the affected areas and also identify the individual and families who have suffered because of the pollution and assess the compensation to be paid to the said individuals and families. In the said notification the MoEF has given the modalities for assessing the loss of ecology and environment, collection from the polluters and payment to the affected farmers and people. In the said notification it is mentioned interalia that 'The statement shall be forwarded to the Collector / District Magistrates of the area concerned who shall recover the amount from the polluters, if necessary as arrears of land revenue and shall disburse the compensation awarded by the Authority

to the affected persons and families'.

Since there is already a precedent for collection of amount from the polluter and payment to the affected people through the District Collector, the committee has suggested that in this mor milagai case also, the responsibility of collection and payment of compensation shall be assigned to the District Collector.

- i) The District Collector shall recover the amount from the Mor Milagai units, if necessary, as arrears of land revenue. He shall disburse the compensation awarded by the Committee to the affected agriculturists.
- ii) The District Collector may be requested not to wait for recovery of the total amount. If compensation amount is not collected in one lump sum, the amount collected can be given to the affected farmers in stages, for example at 25%, 50%, 75% and 100% (or maximum expected) of recovery.
- iii) The District Collector may be requested to verify the identity of the petitioners / farmers before disbursement is made as per the compensation amount arrived to the individual farmers.
- iv) The District Collector may be requested to complete the process of recovery of compensation amount and its disbursement to the affected individuals within a period of six months.
- v) The District Collector may report to TNPCB on evasion or refusal to pay the compensation amount, so that TNPCB may take necessary action for issue of closure orders to those units. Such contingency arise after lapse of six months. In addition to this, the District Collector may initiate action for recovery of the amount as arrears of land revenue.

Part-III: Plan for remediation of the environmental damage caused With respect to remediation of the environmental damage caused by the mor milagai units, it is respectfully submitted that as per the directions of the TNPCB, all the units have provided elevated solar evaporation pan to dispose the remnants/waste water. The salt scooped is collected in polyethylene bags and get stored in closed shed. The salt is a non-hazardous nature. Hence it can be used as industrial grade salt after purification. The units have assured that the present accumulated salt of 6557.5 kg will be disposed within a period of one month. The regular generation of salt will be collected and disposed for the beneficial use. This will be monitored by TNPCB.

With respect to reclamation of soil, the committee has reported that the soil quality of the area was not damaged. So the reclamation of the soil does not arise. As the all the consented units have provided elevated solar evaporation pan for disposal of waste water, there is no further possible discharge of waste water on land. Thus ground water pollution will be arrested. However, the committee suggested to monitor the water quality in the affected area continuously. The committee identified six testing spots for monitoring purpose. As there will not be any discharge of waste water on land in future, the natural rain water recharge into the ground will improve the ground water quality of this surrounding area. The committee suggested for regular monitoring of the Mor Milagai

industries by TNPCB for compliance to control any further discharge of the effluent from the industries.

Under the above circumstances, it is humbly prayed that this Hon'ble National Green Tribunal (Principal Bench) may be pleased to pass such further or other orders as it may deem fit and proper in the facts and circumstances of this case and thus render justice."

41. The Joint Committee also filed an additional report dated Nil, received on 18.10.2019 which reads as follows:-

"REPORT SUBMITTED BY THE COMMITTEE AS PER THE DIRECTIONS OF THE HON'BLE NATIONAL GREEN TRIBUNAL The Hon'ble NGT vide its order dated: 27.02.2019 in O.A.No.517/2018 (earlier OA No:410/2013 (SZ) filed by Thiru.P.V.Subramanian and others against Mor Milagai units issued the following directions

1. Scientific method to be adopted for disposal of the remnants.
2. Assess the damage caused by the discharge from the units which would bring its ambit loss to environment land and water, as well as to the agriculture.

Further the Hon'ble NGT in the above order has directed to suggest a plan of remediation of the environmental damage caused.

Based on that, TNPCB formed a committee with experts and issued terms of reference of the committee, which is as follows.

1. The Committee shall workout an appropriate measure for scientific disposal of the remnants of solid residue accruing in manufacturing process of mor milagai units.
2. The Committee shall assess the damages caused by the discharge from the mor milagai units for a reasonable sum keeping in view of the fact that they are small cottage industries.

In connection with terms of reference the committee already submitted a report on 29.03.2019 and filed in Original Application No. 517/2018 (Earlier O.A.No. 410/2013(SZ)).

In addition to that TNPCB letter dated 17.09.2019 requested the committee as follows

1. To apportion the amount Rs. 38,75,592/- to the 130 units so as to collect the same on polluter pay principle.



2. To furnish plan for remediation of the environmental damage caused to by the mor milagai units In this connection the committee prepared an additional report for above direction as follows

1. Methodology adopted for the apportion the amount Rs.38,75,592/ to the 130 units so as to collect the same on polluter pay principles.

There is a precedence that of The Hon'ble Supreme Court in its judgment on Vellore Citizens Welfare Forum files on August 12, 1991 a petition W.P@ 914 of 1991 before the Hon'ble Supreme Court of India under Article 32 of the constitution for issuance of a writ mandamus or any other writ, order or directions for the protection of thousands of innocents lives, suffering from serious air and water pollution being caused by enormous discharge of untreated effluents by the tanneries into agricultural files, road sides, waterways and open lands in north Arcot District (Vellore), Tamilnadu. The judgment delivered on August 28, 1996 laid down the 'Precautionary Principle' and the 'polluter Pays Principle' as essential features of Sustainable Development.

The 'Precautionary Principle' is defined, therein, as follows:

- i. Environmental measures -- by the State Government and the statutory Authorities - must anticipate, prevent and attack the causes of Environmental degradation.
- ii. Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- iii. The "Onus of proof" is on the actor or the developer/industrialist to show that his action is environmentally benign.

The 'Polluter Pays Principle' was explained by quoting from another judgment of the Hon'ble Supreme Court in Indian Council for Enviro- legal Action Vs. Union of India J.T. 1996(2) 196 to mean that a person carrying on hazardous or inherently dangerous Activities is liable to make good the loss caused to any other person by his activity irrespective of the fact whether he took reasonable care while carrying on his activity. Polluting industries are "absolutely liable to compensate for the harm caused by them to villagers in the affected areas, to the soil and to the underground water and hence they are bound to take all necessary measures to remove sludge and other pollutants lying in the affected areas". Further, absolute liability for harm to the environment was interpreted not only to compensate the victims of pollution but also the cost of restoring the environmental degradation.

Remediation of the damaged environment is part of the process of "Sustainable Development" and as such the polluter is liable to pay the cost to the individual

suffers as well as the cost of reversing the damaged ecology. Based on that case a central government issued a notification in S.O. 671(E) regarding the polluter pays principle in this notification, guidelines were issued as follows.

A statement in annexure - I shows the yield loss compensation payable for agriculturist. The environmental damage in terms of Rupees monetized and apportioned for each industry based on their equivalent production is given in annexure -- II.

II. Committee Suggested methods for recovery of compensation from the polluters and disbursement of amount to the affected farmers as below.

1) The statements in annexure - I showing the yield loss compensation payable for agriculturist and the statements in annexure -

II showing the name and address of the each polluter and the total amount of compensation payable, may be forwarded to the District Collector / District Magistrate of the area concerned. The District Collector / District magistrate shall recover the amount from the polluters, if necessary, as arrears of land revenue. He shall disburse the compensation awarded by the Committee to the affected agriculturists.

ii) The District Collector may be requested not to wait for recovery of the total amount from the polluting industries for payment of compensation. If compensation amount is not collected in one lump sum. The collected compensation can be given to the affected farmers. in stages, for example at 25%, 50%, 75% and 100% (or maximum expected) of recovery.

iii) The District Collector, before disbursement, may be requested to have the identity of the individuals once again verified before disbursement is made.

iv) The District Collector may be requested to complete the process of recovery of compensation 'amount and its disbursement to the affected individuals within a period of six months. The District Collector may report evasion or refusal to pay the compensation to the TNPCB for necessary closure orders, should such contingency arise after lapse of six months. This is in addition to initiation of action by the District Collector for recovery of the amount as arrears of land revenue.

III. Committee suggested for plan for remediation for environmental damage cost by the mor milagai industries.

1. As per production details furnished by 130 Mor Milagai units, accumulated quantities of waste salt is 6557.5 kg (mainly sodium chloride).

TNPCB tested the waste salt constitution and found out that there is no presence of hazardous chemicals. It contains sodium chloride only. M/s. Arunachala Enterprises (TNPCB approved recycler) S.F.No. 128/30 etc. Ahara kadambanur Village at Vedaranyam Taluk, Nagapattinam

District has agreed to dispose the waste salt generated from Mor Milagai units in a scientific manner. For disposal, M/s. Arunchala Enterprises claimed a cost of Rs.3,00,000/-. Based on that Tamilnadu

2. Pollution Control Board directed the mor Milagai Industries to dispose the accumulated salt through M/s. Arunachala Enterprises, and the Mor Milagai Industries have also agreed to bear the cost of treatment. For that, the 130 Mor Milagai industries furnished an affidavit (enclosed). TNPCB has taken the efforts to apportion the Rs. 3,00,000 based on the, waste salt generated by the each industry. The apportionment cost of each industry's statement is given in annexure III. This amount may be treated as restoration fine of ecology of the polluted area.

4. Regarding reclamation of polluted soil the committee already reported that the soil quality of the area was not damaged. So the reclamation of the soil does not arise.

5. As the units have provided solar evaporation pan for disposal of waste water there is no further possible discharge of waste water on land. Thus ground water pollution will be arrested. However, the committee suggested to monitor the water quality in the affected area continuously. The committee identified 6 testing spots (As enclosed in the map) for monitoring purpose. As there will not be any discharge of waste water in future, natural rain water recharge into the ground will improve the ground water quality.

The committee suggested for regular monitoring of the Mor Milagai industries by TNPCB for compliance to control any further discharge of the effluent from the industries."

42. They also annexed a table showing the yield loss compensation payable to the applicants and also the prorated payable by each unit along with the report as Annexure - 1 and 2.

43. The matter was taken up on 12.12.2019 and after considering the submissions made by the learned counsel appearing for the applicants regarding the mitigation measures provided are not sufficient, this Tribunal had directed the Joint Committee to consider the following things:-

1) Whether the remedial measures provided for drying the remnant salt that has been left out after manufacturing of Mormilagai is sufficient?

2) Whether the quantity of remnant of the product has been completely removed and any further steps taken for continuous removal of the same to a safer place?

3) Whether the soil and water quality has been improved, if not, what is the remedial measures to be taken for restoring the damage caused to the soil as well as groundwater and the amount required for remedial measures and also assess the environmental compensation taking into these aspects including the damage caused to the soil and water, loss service to ecology and cost required for restoration of the same.

44. Thereafter, parties were given liberty to file their suggestions before the Joint Committee and the applicants were also directed to submit a probable or possible solution so as to reach the finality of the situation within a reasonable time.

45. The Joint Committee was directed to collect the samples during monsoon season and also after the monsoon season to ascertain the water as well as soil quality and directed them to submit a report within a period of 3 months and the case was posted to 29.04.2020 for that purpose. Thereafter, the matter has been adjourned from time to time at the request of the Joint Committee.

46. As per order dated 16.09.2020, this Tribunal had directed the State Government to come with a concrete guideline/policy, as it is seen from the earlier reports and the submission as to how the remnant salt left out after manufacture of Mormilagai can be safely disposed of without causing any damage to the environment.

47. The matter was again taken up on 20.10.2020, this Tribunal had received the report submitted by the Joint Committee prepared during October 2020, received on 20.10.2020 which reads as follows:-

"The Hon'ble NGT vide Order date: 12.12.2019 in OA No.410 of 2013 has directed as follows:

1. Whether the remedial measures provided for drying the remnant salt that has been left out after manufacturing of "Mor Milagai" is sufficient?
2. Whether the quantity of remnants of the product has been completely removed and any further steps taken for continuous removal of the same to safer place?
3. Whether the soil and water quality has been improved, if not, what is the remedial measures to be taken for restoring the damage caused to soil as well as ground water and the amount required for the remedial measures and also assess the environment compensation taking into these aspects including the damage caused to soil and water, loss of service to ecology and cost required for restoration of the same.

I. The Committee submits its reply to the first direction ("Whether the remedial measures provided for drying the remnant salt that has been left out after manufacturing of" Mor Milagai "is sufficient?") Of the Hon'ble National Green Tribunal as below:

1. The Committee noted that the Mor Milagai units have provided solar evaporation pans to evaporate the waste water arising out of Mor Milagai manufacturing are found to be intact.
2. The Committee also observed that some of the Mor Milagai units were not operated because of the COVID Pandemic.

3. The waste water containing remnant salt was found to be dried in the solar evaporation pan and hence the water content in the effluent is totally evaporated and only salt remains.

4. As the effluent is converted in to salt and collected and sent for disposal, there is no further possibility of effluent directly discharging on land. Hence the solar evaporation pans provided were found to be sufficient.

II. The Committee submits its reply to the second direction ("Whether the quantity of remnants of the product has been completely removed and any further steps taken for continuous removal of the same to safer place?") Of the Hon'ble National Green Tribunal as below:

1. The Mor Milagai unit wise generation of salt and disposal were obtained from the industries by TNPC Board officials and tabulated. From the Table it is observed that all the salt collected from the solar evaporation pan were disposed through M/s.Arunachala Enterprises (approved transporter of waste from Industries by TNPCB) to a facility at Ahara Kadambanur village in Vedaranyam Taluk, Nagapattinam District for treatment.

2. The details of salt generated and disposed by Mor Milagai units are given in Table - 1 which is enclosed as Annexure - 1 which shows that the salt generated upto 30.09.2019 is 6557.5 kg This quantity of salt was disposed on 07.11.2019 and again an accumulated quantity of 330 kg was also collected and disposed as done earlier.

3. The subsequent salt generation was mentioned as nil due to two reasons: (i) due to non operation of some Mor Milagai units in the pandemic situation (ii) the effluent disposed in the solar evaporation pan is yet to dry completely to become salt for disposal.

4. The District Environmental Engineer, TNPC Board a Member of this Committee was asked to ensure disposal of further generation of salt as practiced now continuously in future too.

III. The Committee submits its reply to the third direction (Whether the soil and water quality. has been improved, if not, what is the remedial measures to be taken for restoring the damage caused to soil as well as ground water and the amount required for the remedial measures and also assess the environment compensation taking into these aspects including the damage caused to soil and water, loss of service to ecology and cost required for restoration of the same ") of the Hon'ble National Green Tribunal as below:

1. Water samples and the soil samples were collected by TNPC Board Officials and sent for analysis to find out whether soil and water quality has improved comparing to previous year samples collected during 2019.

2. From the Report of Analysis it is found that the Total Dissolved Solids (TDS) which is a proportion of Electrical Conductivity (EC) which influences the plant growth has lowered.

3. The water samples collected and analyzed in the year 2019-2020 when compared, showed that there is a reduction of Total Dissolved Solids (TDS) which may be because of stoppage of effluent on land by the mor milagai units and subsequent rainfalls in the current year. The rain fall data collected from the Department of Economics and Statistics to assess the rainfall pattern is enclosed vide Annexure - II.

4. The Committee also observed that coconut trees are grown in the questionable area were found to be healthy.

5. Some of the photographs taken in the area showing the trees status is shown below in Annexure - III.

**CONCLUSION** As per the three direction of the Hon'ble NGT in its order dated 12.12.2019 of OANo 410 of 2013 the committee thoroughly examined water and the soil within a radius of 5 km and soil quality analysis carried out are compared with the values in the years 2019 and 2020 and the inference drawn is indicated as Bar charts as well as Graphs. The ROA, Contour map and Rainfall data used for this study are enclosed vide Annexures.

From the study it is clearly understood that:

- a) The remedial measures provided by the Mor Milagai units for drying remnant salt is sufficient.
- b) The quantity of salt produced sofar was disposed and the fresh salt yet to dry need to be disposed.
- c) The soil and water quality were found to have improved by comparing the ROA of last year with the current year ROA. Pictorial representation as bar charts, Graph and the values of ROA are given as Annexures. As the soil and water quality are found to be improving there is no need for levy of any further Environmental Compensation.

**Recommendation of the Committee:**

- i. The District Environmental Engineer a member of the Committee should take up routine inspections to ascertain the proper operation of the sol evaporation pan intended to dispose the waste water containing remnant salt in future also.
- ii. The District Environmental Engineer a member of the Committee should monitor the Mor Milagai units to regularly for the proper collection and disposal of the dried salt from the solar evaporation pans by the units.

iii. The District Environmental Engineer a member of the Committee shall advise the Mor Milagai units to provide rain water harvesting pits in the lowest sloppy area in the unit for recharge of rain water for improvement of quality of ground water.

iv. The District Environmental Engineer a member of the Committee shall also monitor the ground water and soil samples for atleast once in a year for further period of three years so as to assess the improvement of water and soil quality."

48. They also produced some annexure containing table regarding the salt generated and disposed of by Mormilagai units and rainfall data and certain photographs showing the growth of Coconut trees and other plants, comparative water analysis reports and other reports along with the Joint Committee report.

49. After considering the above report, this Tribunal had posted the case for filing objections (if any) to the report and also directed the State Government to come with a proposal as to how the residue salt collected after the process of manufacture of Mormilagai can be dealt with in a scientific manner instead of storing the same for a longer period as has been observed in the earlier report.

50. The matter was taken up on 23.12.2020, and this Tribunal had considered the report submitted by the Joint Committee dated Nil, prepared during December 2020 and extracted in Para (3) of the order which reads as follows:-

"The Hon'ble NGT vide order dated: 28.10.2020 in O.A.No 410 of 2013 has directed the following:

1. To conduct the water as well as soil analysis in the neighboring areas, after the peak monsoon is over and submit a report regarding the same. If contamination still continues then they are directed to give their recommendations for remediation of these aspects as well as to how this can be dealt with and the grievance of the applicant can be addressed.

2. To take steps to mitigate the circumstances and disposal of remnant salt left out after manufacturing of Mor Milagai in a scientific manner and also issue necessary guidelines regarding the same.

3. To consider these aspects and come with a concrete proposal as to how this can be scientifically disposed without causing any damage to the environment.

I. The Committee submits its reply to the first direction "To conduct the water as well as soil analysis in the neighboring areas, after the peak monsoon is over and submit a report regarding the same". If contamination still continues then they are directed to give their recommendations for remediation of these aspects as well as to how this can be dealt with and the grievance of the applicant can be addressed of Hon'ble

National Green Tribunal as follows:

The Committee noted that TNPC Board has collected soil and water samples on 02.12.2020 and sent for analysis. Report is awaited. The committee advised TNPC Board to collect water as well as soil in neighboring areas after peak monsoon is over. TNPC Board has also accepted to collect water as well as soil samples during post monsoon period of April & May 2021 and submit the report of analysis for taking further recommendation if warranted.

II. The Committee submits its reply to the second direction " To take steps to mitigate the circumstances and disposal of remnant salt left out after manufacturing of Mor Milagai in a scientific manner and also issue necessary guidelines regarding the same" of Hon'ble National Green Tribunal as follows:

1. The Committee observed that the MorMilagai units have provided solar evaporation pan to evaporate the waste water arising out of Mor milagai manufacturing process hence the waste water was found to be dried and the remnant salt is collected and stored.

2. The remnant salt collected is sent for disposal to common facility, where the salt is treated and converted into useful products as the salt is nonhazardous as per the report enclosed.

TNPC Board has authorized a common facility located at Vedharanyam to collect the remnant salt generated from the various type of Industries located in Tamil Nadu for recovery of salt through salt pans. The following guidelines are followed by Mor Milagai units.

a. All Mor Milagai units should construct elevated solar Evaporation Pan of adequate size prescribed by TNPC Board and maintain it properly.

b. Mor Milagai unit shall dry all the waste water arising from the manufacturing process in the solar evaporation pan such that the waste water is converted into salt by evaporation.

c. The Mor Milagai units shall collect the dried salts from solar evaporation pan as and when dried and pack it in leak proof polythene bag.

d. The Mor Milagai units shall store the polythene bags containing salt in closed shed to avoid any leaching.

e. The Mor Milagai units shall maintain records for the quantity of salt collected, stored and disposed through the common facility.



f. Mor Mialgai units shall dispose the dried remnant salt to TNPC Board authorized common facility without accumulation beyond 200 kg.

g. MorMilagai units either individually or commonly dispose the remnant salt to the common facility.

h. TNPC Board and SrirampuramTown Panchayat shall monitor the dried remnants for proper disposal regularly by verifying records maintained by the Mor Milagai units as well as physically verifying the intact storage of salt collected.

III. The Committee submits its reply to third direction "To consider these aspects and come with a concrete proposal as to how this can be scientifically disposed without causing any damage to the environment" of Hon'ble NGT.

1. The Production quantity, waste water & salt generation details are furnished as follows:

Product		
MorMilagai	600 Kg/Month	300 Kg/15 days
Raw Material		
i. Green	2000 Kg/Month	1000 Kg/15 days
Chilli		
ii. Salt	200 Kg/Month	100 Kg/15 days
iii. Curd	600 L/Month	300 L/15 days
iv. Water	800 L/Month	400 L/15 days
Trade Effluent		
	80 L/Month	40 L/15 days
Solid Waste		
i. Waste salt	0.50 Kg/Month	0.25 Kg/15 days
from SEP		
ii. Salt From Drying Yard	10 Kg/Month	5kg/15 days
iii. Waste Chilli	5 Kg/Month	2.50 kg/15 days

From the above details, it is evident that maximum of 10.5 kg of salt is generated per month from each unit. For a period of one year about 126 kg of salt will be generated on an average from each unit.

2. At present the Mor Milagai units are storing the remnant salt in polythene bags. These are kept in closed shed /building. Mor Milagai units disposes the salt through TNPC Board authorized common facility.
3. The present method of disposal itself is a scientific mode of processing the waste salt. The salt is converted again to crystal salt by the common facility. It is further sent for different useful purposes.
4. The present practice of disposal of remnants through solar evaporation pan is found satisfactory.

Conclusion:

As per the three direction of the Hon'ble NGT in its order dated:28.10.2020 of O.A.No 410 of 2013,the committee thoroughly examined details and concluded the following:

1. Soil and well water samples are collected from all applicants premises and sent for analysis during monsoon period and shall be collected during post monsoon also.
2. Remnant salt generated are stored in premises of Mor milagai units and instructed through TNPC Board for safe disposal through common facility where it is purified and crystallized so that it can be reused in other industries. Till the remnants are disposed it should be safely stored inside the premises.
3. The disposal of remnant salt through common facility shall be made mandatory for every industry  
Recommendation of the Committee:
  1. The DEE a member of the committee shall collect water & soil samples in post monsoon period to comply with the direction and also to assess the condition of water and soil quality.
  2. The DEE a member of Committee should monitor the Mor Milagai units and ensure proper storage of remnant salts as well as by Srirampuram Town Panchayat.
  3. All the Mor Milagai units shall dispose the remnant Salts only through common facility such that no damage is caused to environment."

51. Since they wanted some more time to conduct the soil as well as water analysis after the monsoon period as well, time was granted and the case was posted to 22.04.2021 for that purpose.

52. Thereafter, the Joint Committee filed a report dated Nil, prepared during April 2021 and e-filed on 26.04.2021 which reads as follows:-

"The Hon'ble NGT vide order dated: 23.12.2020 in O.A.No 410 of 2013 has directed as follows:

"It is seen from the report that they want some more time to comply with the directions of this Tribunal to conduct soil as well as the water analysis, after post monsoon period as well and issued the direction that if any damage to ground water and soil remedial measures for the restoration of the damage caused to the environment in this matter."

Based on that, the committee collected the petitioner's well water samples after the post monsoon period and pre monsoon period and compared results are submitted.

#### RAIN FALL DATA:

Another important factor contributing for the quality of the ground water is rainfall data. The pattern of the rainfall for the year 2001 to 2020 is furnished below for the Dindigul District for various seasons RAINFALL DATA FOR THE YEAR 2001 TO 2020 Source: Department of Economics and Statistics.

TIME SERIES DATA OF RAIN FALL BY SEASONS (LAST YEARS) 2001 - 2020 South West North East Winter Hot Weather Total °A. Monsoon Monsoon Season Season Deviation Actual Normal Actual Normal Actual Normal Actual Normal Actual ( + or - or Normal (mm) (mm) (mm) ( mm ) ( mm ) ( mm ) ( mm ) =) From ( mm ) ( mm ) (mm) Normal 1 2001-02 270.8 197.8 432.4 305.7 50.8 52.7 174.2 71.99 928.2 628.1 -32 2 2002-03 270.8 147.4 432.4 428.4 50.8 6.98 174.2 207.1 928.2 789.8 -15 3 2003-04 251.4 297.3 399.2 396.6 33 --- 148 238.9 831.6 932.8 12.2 4 2004-05 251.4 373.3 399.2 430.5 33 34.3 148 286.1 831.6 1124.2 35.2 5 2005-06 251.4 247.5 399.2 741.2 33 18.4 148 191.3 831.6 1198.4 44.1 6 2006-07 251.4 2251.1 399.2 425 33 9.5 148 91.5 831.6 751.1 -9.7 7 2007-08 251.4 233.4 399.2 590.2 33 38.5 148 298.5 831.6 1160.6 39.6 8 2008-09 251.4 349.8 399.2 439.7 33 6.9 148 114.9 831.6 911.3 9.6 9 2009-10 251.4 209.9 399.2 468.6 33 4.2 148 137.3 831.6 820.2 -1.4 10 2010-11 251.4 286 399.2 768.4 33 37.4 148 170.7 831.6 1262.5 51.8 11 2011-12 295.4 180 436.4 617.1 30.9 0.3 168 140.4 930.7 940.5 - 1. 1 12 2012-13 295.4 175.9 436.4 317 30.9 33.9 168 102.7 930.7 629.5 -32.4 13 2013-14 295.4 174.8 436.4 219.7 30.9 7.3 168 240.3 930.7 642.1 -28.8 Observation:

The average rain fall in Dindigul District is 812 mm annually but, the previous year the rainfall data is 635.9mm. This rainfall is lower (-31.7% Deviation from normal) by comparing to the annual average rainfall. For the present year the rain fall is 735mm (-24.9% Deviation from normal)which is higher than the last year.

COMPARISON OF REPORT OF ANALYSIS WATER SAMPLES FOR THE YEAR 2019-2021 On perusal of water quality from the comparison report it is evident that, from 2019-2021 the pollutant level decreases from the year 2019-2021.

THE GRAPHICAL REPRESENTATION OF TDS LEVEL OF THE COMPLAINANTS WELL WATER FROM YEAR 2019-2021 IN PREMONSOON AND AFTER POST MONSOON PERIOD IS PRODUCED BELOW.

THE GRAPHICAL REPRESENTATION OF TDS LEVEL FROM YEAR 2019-2021 IN PRE MONSOON AND AFTER POST MONSOON PERIOD TDS (mg/lit) - Year 2019 - Blue color (after Post monsoon ranges - 11284 ranges - 4220) TDS (mg/lit) - Year 2020 - Brown color (Pre monsoon ranges - 12972 ranges - 5576) TDS (mg/lit) - Year 2021 - Green color (after Post monsoon ranges - 6710 ranges - 2050) Observations In the year of 2019 after post monsoon period 'the TDS ranges to 0284mg/lit to 4220 mg/lit the same wells in the year of 2021 after post monsoon period is reduced 4220 mg/lit to 2050 mg/lit. From this it is observed that year wise, the TDS levels are decreasing from 2019-2021 due to natural recharge of ground water.

SOIL SAMPLES ANALYSIS REPORT OF PETIONER'S LAND FOR THE YEAR 2019-2021 IN PRE MONSOON AND AFTER POST MONSOON PERIOD Soil sample 1st foot - Year 2019 - Blue color (EC (ds/m) ranges - 0.326 ranges - 0.216) Soil sample 1st foot - Year 2020- Brown color (EC (ds/m) ranges - 0.314 ranges - 0.185) Soil sample 1st foot - Year 2021 - Green color (EC (ds/m) ranges - 0.195 ranges - 0.063) Soil sample 2nd foot - Year 2019 - Blue color (EC (ds/m) ranges - 0.326 ranges - 0.225) Soil sample 2nd foot - Year 2020- Brown color (EC (ds/m) ranges - 0.331 ranges - 0.152) Soil sample 2nd foot - Year 2021 - Green color (EC (ds/m) ranges - 0.222 ranges - 0.084) Soil sample 3rd foot - Year 2019 - Blue color (EC (ds/m) ranges - 0.319 ranges - 0.2) Soil sample 3rd foot -- Year 2020- Brown color (EC (ds/m) ranges - 0.318 ranges - 0.165) Soil sample 3rd foot -- Year 2021 - Green color (EC (ds/m) ranges - 0.189 ranges - 0.072) Observations:

In the year of 2019 in the depth of 1st foot soil sample taken from complainant shows (EC (ds/m) ranges - 0.326 ranges - 0.216) The same land, in the year of 2021, at the depth of 1st foot soil sample taken from complainants area shows after post monsoon (EC (ds/m) ranges - 0.195 ranges - 0.063) On comparison of above results the soil EC values are decreased and soil quality improves over time.

In the year of 2019 at the depth of 2nd foot soil sample taken from complainant shows (EC (ds/m) ranges - 0.326 ranges - 0.225) The same land, in the year of 2021, at the depth of 2nd foot soil sample taken from complainant shows after post monsoon (EC (ds/m) ranges - 0.222 ranges - 0.084) On comparison of above results the soil EC values are decreased and soil quality improves over time.

In the year of 2019 at the depth of 3rd feet soil samples taken from complainants area shows (EC (ds/m) ranges - 0.319 ranges - 0.200) The same land, in the year of 2021, at the depth of 3rdfeet soil sample taken from complainant shows after post monsoon (EC (ds/m) ranges - 0.189 ranges - 0.072) On comparison of above results the soil EC values have decreased and soil quality improves over time.

**CONCLUSION** The committee observed remnant salt generated are stored in polythene bags kept in the impervious platform premises of Mormilagai units and instructed through TNPC Board for safe disposal through common facility where it is purified and crystallized so that it can be reused in other industries. Till theremanants are disposed it should be safely stored inside the premises.The disposal of remanant salt through common facility shall be made mandatory for every industry It is clearly understood from the above results that the well water and soil quality in the petitioner's land improves due to recharge of rain water into the ground water. The pollution levels are considerably decreasing after post monsoon. So there is no necessity of remediation of damage of ground water and soil. Because of natural remediation occurs due to the rain water recharge in the ground water after post monsoon period.

The result shows the discharge of leach out from remnant salt is completely stopped. Therefore the TDS level in well water in the petitioner's wells shows a decrease of TDS level in well water. The EC values for the soil samples also decreases.

The committee already suggested TNPCB and local body for strict monitoring of Mormilagai units for the disposal of remnant salts and also leach out arising from remnant salts to be monitored by putting piezometric wells in and around the Mormilagai units. Any violation if noticed from the above monitoring method the TNPCB along with local body shall take severe action on the erring industries to avoid further pollution in future."

53. The 8th Respondent filed objection to the same wherein, they have stated that the stored remnant salt were taken by the M/s. Arunachala Enterprises, a private organization that was permitted by the Tamil Nadu Pollution Control Board to take the salts for disposal and issued receipt for the amount of salt taken by them. It is also mentioned that the remnant salts stored in a dark closed shed were disposed of once in a year as per the guidance of the Tamil Nadu Pollution Control Board.

54. The Joint Committee also filed another report prepared during July 2021, e-filed on 12.07.2021 which reads as follows:-

"Report of the Committee submitted to the Honorable National Green Tribunal in the order Dated 03.06.2021 and 25.06.2021 in original application No.410 of 2013 (SZ) In order dated: 03.06.2021 and 25.06.2021 the Honorable National Green Tribunal raised the following questions and directed to implement the same.

1. The Honorable National Green Tribunal directed "to produce hard copy and soft copy of the report of Analysis of Soil as well as water samples for coming to the conclusion mentioned by them in the report".

Reply: In the earlier order dated: 23.12.2020 in O.A. No 410 of 2013 committee report was submitted on April 2021. In this report a comparative statement of ROA of well water samples and also soil analysis for the year 2019, 2020, 2021 were tabulated in the report. As per direction of the Honorable National Green Tribunal the ROA of soil as well as water samples (for arriving to a conclusion), the hard copy is annexed. A copy of the report of analysis hard copy and soft copy were also sent to the council for necessary information.

2. As directed by the Honorable National Green Tribunal to find out similar type of industries doing it on a large scale or manufacturing of eateries with salt are disposing their remnant salt left out in such manufacturing process and whether any industrial units are in habit of receiving such salts for their industrial purposes.

Reply: Eateries industries coming under this type i.e using salt as one of the raw material, with best of knowledge known is only pickle industries, which is using lesser salt. Pickle industry do not dispose salt, the salt will go along with the product. Other than eateries, Textile industries generate huge quantity of salt. For disposal of waste salt from textile industries, Tamil Nadu Pollution Control Board identified (with the help of experts) an agency called M/s. Arunachala Enterprises. This unit M/s. Arunachala Enterprises for disposal of waste salt was approved by the experts, it was also scrutinized and approved by Central Pollution Control Board vide letter F.No.B-29016/(G-97)21/WM II/AR/dated:11.06.2021 for treatment and disposal of waste salt in scientific manner.

As per the direction of the Honorable National Green Tribunal in gth para Tamil Nadu Pollution Control Board already arrived a proposal of disposal of remnant salt through Ms. Arunachala Enterprises scientifically. The process of treatment remnant / waste salt is detailed below:

The details of process of remnant/ waste salts by M/s. Arunachala Enterprises:

The remnant / waste salt is brought to the site through secured transportation system. The received salt is stored in the salt storage shed. This salt is then mixed with ground water or sea water in the collection cum mixing tank. A paddle type mixer is provided in this tank to mix the salt, water and the chemicals added in the tank. The salt solution is prepared upto 1,00,000 mg/lit. TDS value. The Collection cum mixing tank is constructed with hopper bottom so as to enable the settling of sludge and to take up for further treatment.

In this collection cum mixing tank, required dosage of coagulating chemicals like flocci, floc2 and poly electrolytes are added. After dosing, Mixing and settling the chemical sludge will be settled at the bottom of the tank. The supernatant from the collection tank will be pumped for filtration.

The permeate from the membrane filtration system is collected in the permeate collection tank and the reject is collected in reject collection tank. The collected reject is sent back to collection cum mixing tank and the dried sludge is disposed off through cement industries for co processing. The permeate will be sent to salt ponds for further concentration and to get normal salt by natural crystallization by evaporation. The solution will be dried through sunlight and scooped to get salt. The dried salt will be only sodium chloride with about 99% purity. It will be sold to market as industrial salt. Hence the supernatant solution is converted to salt.

The residue generated from the membrane filtration system after recovery of salt solution will be sent to another salt pan for further concentration and to get the mixed salt by natural evaporation and crystallization. This dried mixed salt will be scooped and will be sold to market as a second grade industrial salt for further beneficial use.

3. As directed by the Honorable National Green Tribunal in order dated 25.06.2021 "the State Government has to find out a means/way forward as to how this can be remedied by providing certain guidelines as to how remnant salts which are left out as residue in the manufacturing process of Mor Milagai units".

The Pollution Control Board is also directed to come with a concrete proposal regarding this aspect, as being a regulator, they must also have some duty to suggest the scientific method as to how this will have to be dealt with.

Reply: At present the mor milagai units are storing the remnant salt in polythene bags. These are kept in closed shed/building. Tamil Nadu Pollution Control Board suggested the mor milagai units to dispose the remnant to the agency called M/s. Arunachala Enterprises. This unit recovers industrial grade salt from the waste salt/remnants generated from textile manufacturing processing industries. Central Pollution Control Board has prepared SOP (standard Operating Procedures) and check list of minimal requisites facility for "Utilisation of waste salt generated from CETPs/ETP of textile manufacturing processing industries for recovery of salts for industrial use" After necessary facilities has been installed by M/s. Arunachala Enterprises, Tamil Nadu Pollution Control Board has granted authorization for recovery of industrial grade salt from waste salt/remnant salt. Hence all mor milagai units shall use this available facility for recovery and reuse of industrial grade salt from their remnants.

Already mor milagai units have disposed the remnant salt of 6557.5 kg as on 07.11.2019 to M/s. Arunachala Enterprises. The details have already submitted in the Honorable National Green Tribunal vide report in October 2020.

Treatment and disposal of remnant salt through the above recovery facility is only available method at present.

4. As directed by the Honorable National Green Tribunal in order dated 25.06.2021. "The question to be considered is amount of compensation payable and the remedial measures (if any) to be taken. For complying with the direction issued by this Tribunal the following reply furnished".

Reply: The amount of compensation payable and the remedial measures is already arrived by the committee and report is submitted to the honourable National Green Tribunal in connection with order dated 27.02.2019 in March 2019.

Conclusion:

As per the direction of the Honorable National Green Tribunal the following were implemented (1)ROA in soft and hard copy were filed through e-filing in the form of Searchable PDF/OCR supportable PDF and not in the form of Image PDF along with necessary hard copies to be produced as per Rules.

(2) The remnant salt cleared from Mor milagai site and treatment system by M/s. Arunachala Enterprises is detailed i.e the sludge generated during the treatment process is used for co processing in cement industries and the recovered salt of good grade and second grade from the remnant salt is sold out for beneficial use in industries.

(3) All mor milagai units shall store the remnant salt in polythene bags which are to be kept in a closed shed in safe manner. This shall be monitored by Tamil Nadu Pollution Control Board and concerned local body.

(4) The Committee suggested that all the mor milagai units shall use this facility M/s. Arunachala Enterprises for disposal of remnants following due procedures with necessary permission from Tamil Nadu Pollution Control Board.

Report submitted to Honorable National Green Tribunal."

55. Heard the counsel appearing for the applicants, counsel appearing for the 8th Respondent, State Pollution Control Board and other State Departments.

56. The learned counsel appearing for the applicants argued that it will be seen from the various reports submitted by the Joint Committee appointed by this Tribunal and also by the State Pollution Control Board that since long time even prior to the filing of the application in 2013, Mormilagai manufacture was conducted by several units and they were disposing the residue salt on the ground which resulted in soil as well as water pollution. It will be seen from the reports that the salinity in water as well as soil has increased in the neighboring villages where the applicants are doing agricultural activities and on account of the pollution caused, yield from their properties have been affected considerably and the reports submitted by an Expert Mr. Krishnamoorthy produced by the applicant will go to show that the nature of impact of soil with more salinity on agricultural products. Further, the Joint Committee had taken only a shorter period, though it is a continuing



damage and even in the latest report produced also will go to show that the remediation process has not been completed and some improvement has happened on account of the natural remediation due to heavy rain during monsoon and other natural remedial process that is being undertaken by the nature. So, the quantum of compensation assessed is much less. Further, even the remedial measures provided as directed by the Pollution Control Board, on seeing the design of drying pans, will go to show that it will not serve the purpose, as there is likelihood of dripping of the saline water into the ground affecting the groundwater as well as soil continuously in future as well. So, some methodology will have to be adopted by the State Pollution Control Board for remedying the situation permanently and that will have to be undertaken by the Mormilagai units. Since Mormilagai units are represented by their association viz., the 8th Respondent, there is no necessity to implead all the Mormilagai units for the purpose of directing them to pay the compensation, as the committee had bifurcated the amount payable by each unit taking into account the quantity of salt that is being used by them and that will be binding on them and they were also aware of the fact that such case was pending. Further, once the amount is collected, that can be directed to be paid either through the District Collector or by the State Pollution Control Board. Even as regards the disposal aspect is concerned, certain scientific methods will have to be adopted by the State Pollution Control Board and that will have to be implemented by the Mormilagai units, as keeping the remnant salt for a longer period on ground even in a shed will have an adverse impact on environment.

57. The learned counsel appearing for the Tamil Nadu Pollution Control Board argued that they are all tiny cottage units involved in manufacture of Mormilagai in a native process without any mechanical process. The directions given by the State Pollution Control Board have been complied by them and on account of the improvements made in the manufacturing process and collection of the residue salt, lot of improvement has happened in the soil as well as water quality which is evident from the reports submitted before this Tribunal. The State Pollution Control Board is prepared to abide by any direction issued by this Tribunal and whenever certain methodology is evolved for this purpose, the same will be directed to be implemented by the Mormilagai manufacturing units by giving necessary directions.

58. The learned counsel appearing for the 8th Respondent association argued that they were only 138 members in the association and they were looking after the affairs of the units and the units have fulfilled the directions issued by the State Pollution Control Board and whatever further directions issued by the Pollution Control Board to prevent even any possible pollution, then that will be implemented by them. During the course of hearing, he had also submitted that he was informed by the President of the Association that the members have dissolved the association and as such, the society cannot take up any responsibility any more.

59. The learned counsel appearing for the State Departments submitted that they will abide by any direction issued by this Tribunal and all steps will be taken to implement the directions issued by this Tribunal to protect environment vis-à-vis the interest of the small cottage units earning their livelihood by involving themselves in the Mormilagai manufacturing process and also to protect interest of the village people who are said to be affected by the alleged pollution.

60. We have considered the submissions made by the learned counsel appearing for the parties and also perused the documents on record and other submissions made by the parties.

61. The points that arise for consideration are:-

- (i) Whether on account of the manufacturing process of Mormilagai by the units represented by the 8th Respondent Association have resulted in any pollution?
- (ii) Whether the action taken by the Tamil Nadu Pollution Control Board is sufficient, if not, what is the nature of further directions to be issued in this regard?
- (iii) Whether any damage has been caused to the environment on account of the alleged act of pollution caused by the Mormilagai manufacturing units?
- (iv) What is the quantum of compensation payable to the applicants for the loss said to have been suffered by them on account of the alleged polluting activity of the Mormilagai units, if so, what is the quantum of compensation to which each applicant is entitled to?
- (v) What are all the further directions, if any, to be issued by the Tribunal applying the "Precautionary Principle" to protect the environment and prevent future damage being caused to the environment on account of the activities of the Mormilagai units?

POINTS:-

62. The grievance in this application is regarding the pollution caused on account of the operation of Mormilagai units in the process of their manufacturing. According to the applicants, they were discharging the residue salt in the ground which affected the ground water quality and made it unfit for human consumption and also affected the fertility of the land due to high level of salinity in the water and soil. The applicants claimed compensation for the damage caused to their properties.

Originally there were six applicants, of which, the 4th Applicant died and his legal representatives were impleaded as additional Applicants No.7 to 10 as per order in M.A. No.269 of 2016 dated 30.01.2017 and thereafter, Respondents No.9 to 28 were impleaded as per order in M.A. Nos.270 to 289 of 2016 dated 15.12.2016 and they are some of the Mormilagai manufacturing units who were originally part of 8th Respondent Association, subsequently dropped out of the same and wanted to contest the case independently.

63. It is seen from the various reports obtained either through the State Pollution Control Board or through the Joint Committee appointed by this Tribunal (which were already extracted above and as such, we are not extracting the same to avoid repetition), it will be seen that that there was large scale damage caused to the soil as well as water and the water has become unfit for human consumption.

64. It is also seen from the various reports submitted that the State Pollution Control Board had earlier issued directions to the Mormilagai manufacturing units and most of them have adopted the methodology suggested by them, as instead of discharging the remnant salt into the ground directly, the same was dried in an elevated solar pan and dried salt was collected and stored in plastic bags and the same is being given to M/s. Arunachalla Enterprises, a waste disposal facility dealing with the disposal of such salts in a scientific manner and it is also seen from the directions issued, the same will have to be removed once it reached the quantity of 200 Kg and the 8th Respondent Association has filed their objection to the Joint Committee report that they are strictly following the directions issued by the Tamil Nadu Pollution Control Board.

65. So, it is clear from this that the contention of the respondents representing Mormilagai manufacturing units Association as well as individual Mormilagai units which have been impleaded that there is no pollution caused on account of their activity cannot be accepted. So, it can be safely concluded that the activity of the Mormilagai manufacturing units has affected the environment including the water quality and some damage has been caused to the soil, affecting the fertility and they are liable to pay compensation for the damage caused to the environment and also to some extent damage has been caused to the property of the applicants, affecting the fertility of the land resulting in reduction in income.

66. Further, it is seen from the report submitted by the Joint Committee received on 20.10.2020 that the remedial measures provided by the Mormilagai manufacturing units for drying the remnant salt is sufficient and they have also given the following conclusion and recommendations:-

"CONCLUSION As per the three direction of the Hon'ble NGT in its order dated 12.12.2019 of O.A. No. 410 of 2013 the committee thoroughly examined water and the soil within a radius of 5 km and soil quality analysis carried out are compared with the values in the years 2019 and 2020 and the inference drawn is indicated as Bar charts as well as Graphs. The ROA, Contour map and Rainfall data used for this study are enclosed vide Annexures.

From the study it is clearly understood that:

- a) The remedial measures provided by the Mor Milagai units for drying remnant salt is sufficient.
- b) The quantity of salt produced so far was disposed and the fresh salt yet to dry need to be disposed.
- c) The soil and water quality were found to have improved by comparing the ROA of last year with the current year ROA. Pictorial representation as bar charts, Graph and the values of ROA are given as Annexures. As the soil and water quality are found to be improving there is no need for levy of any further Environmental Compensation.

Recommendation of the Committee:

- i. The District Environmental Engineer a member of the Committee should take up routine inspections to ascertain the proper operation of the sol evaporation pan intended to dispose the waste water containing remnant salt in future also.
- ii. The District Environmental Engineer a member of the Committee should monitor the Mor Milagai units to regularly for the proper collection and disposal of the dried salt from the solar evaporation pans by the units.
- iii. The District Environmental Engineer a member of the Committee shall advise the Mor Milagai units to provide rain water harvesting pits in the lowest sloppy area in the unit for recharge of rain water for improvement of quality of ground water.
- iv. The District Environmental Engineer a member of the Committee shall also monitor the ground water and soil samples for atleast once in a year for further period of three years so as to assess the improvement of water and soil quality."

67. Though additional Respondents No.09 to 28 were impleaded in their individual capacity, they have not filed any independent statement.

Though there were about 153 units, subsequently some of the units were closed on account of non-compliance of the directions issued and it appears that 138 units have affectively engaged in manufacturing of Mormilagai.

68. It is seen from the report that some improvements occurred due to the remedial measures taken and the quality of soil and water has been improved, though there was presence of salinity in the water quality. The report of the committee also shows that though there was certain damage caused to the yield earlier, subsequently there was improvement in the yield due to reduction of salinity in the water. The applicants had raised their objection to the report stating that the report does not reflect the real status of the water quality.

69. The applicants also produced a report prepared by Prof. Dr. K.K. Krishnamurthy to rely on the quantum of compensation fixed. The applicant also produced the document to show that they are having land in that area and also to show that they are actively cultivating in that land.

It is seen from the above said document that Dr. K.K. Krishnamurthy had assessed the compensation in respect of the 4th Applicant/Sivaji as Rs.33,08,850/- including remediation charges taking the loss for 10 years.

Similarly, for the 2nd Applicant/K. Kandhasamy - Rs.12,16,800/-, 6th Applicant/N. Sakthivel - Rs.35,13,375/-, 5th Applicant/S. Selvaraj -

Rs.13,16,250/-, 3rd Applicant/N. Selvaraj - Rs.17,87,500/-, 1st Applicant/Subramanian - Rs.47,26,35/- whereas, the Joint Committee appointed by this Tribunal had assessed the total compensation payable by all the 130 units as Rs.38,75,592/- evidenced by Annexure - I, calculating

the compensation for each applicant and also given the payment details to be made by each unit depending upon their production capacity as Annexure - II (produced along with Joint Committee report dated 18.10.2019). But quite unfortunately, the details of the calculations were not mentioned as to how this amount was arrived by them. Moreover, he has estimated the yield loss to be 80%, whereas the Joint Committee arrived at the yield loss as 30% only.

70. It was mentioned in the report submitted by the State Pollution Control Board that for the purpose of assessment of damage and fixing the compensation, they wanted to collect the crop pattern, crop area, yield, loss of revenue details from the Revenue Department for the past 25 years (as Mormilagai units were said to be in operation for about 25 years so that the loss of agriculture, year wise can be taken to arrive at a conclusion).

Further, the data on soil characteristics especially soil pH, salinity (soil Electrical Conductivity [EC]) and alkalinity (i.e. Sodidity that is percentage of exchangeable Sodium ESP content in soil) present in the soil and the extent of the area where variation or increase historically is needed to assess the extent of damage caused to the soil health from Agriculture Department. Rainfall data for the past 25 years since it is also a parameter of assessing agricultural productivity is needed from the Public Works Department. Any baseline data of groundwater prior to setting up of the Mormilagai units and subsequent groundwater quality change data is needed to assess the extent of damage caused to the groundwater and data is to be provided by TWAD Board and PWD, Groundwater Department.

So, they mentioned that after getting these details only they may be able to assess the compensation.

71. Further, it is seen from the report of the Joint Committee that the report of the analysis of effluents of Mormilagai units provided by the State Pollution Control Board shows the Chloride/TDS ratio is 0.5. The same ratio is observed in the polluted water in the wells. They came to the conclusion that a reach out of effluents of Mormilagai units has degraded the surrounding well of the affected applicants. It was also mentioned in the report that the soil report shows that there is no necessity for reclamation of soil of the applicants' land, as it was not affected. They have also given the table showing the various yield progression of various cultivation and according to the applicants' land, it was planted with Coconut, teak wood, cholam and mango. As per the data collected from the Agriculture Department, the yields for the year 2005 - 06 to 2015 - 16 are not uniform. The yield loss was taken as around 30% of the total yield and it was multiplied by 10 and the amount was arrived at.

72. It may be mentioned here that even if the Limitation Act is made applicable, parties are entitled to claim only for the loss of income for only three years or compensation for loss income only for 3 years. But as regards the National Green Tribunal is concerned, their limitation for claiming compensation is five years and if that be the case, they may be entitled for compensation at the maximum of 5 years and not more than that. They also taken the timber value etc. but in fact, there was no loss occurred to the timber and whatever amount they may get, they are entitled to get that amount. So, that should not have been added as part of the loss of income.

73. Further, while disposing of the matter, this Tribunal had observed that the damage caused to the individual applicant on account of discharge of residue salt and water into the ground directly by the units may be assessed by the Tamil Nadu Pollution Control Board for a reasonable sum, keeping in view of the fact that the manufacturing units are small cottage industries and also considering their capacity to pay the amount. That gives an indication that the paying capacity of the unit will also have to be taken note of while assessing the compensation. This aspect has not been considered by the Expert engaged by the applicants or by the Joint Committee while fixing the quantum of compensation payable. But after assessing the total compensation, they have apportioned the liability between 130 units on the basis of their manufacturing capacity.

Manufacturing capacity is different from, what is the total profit they are getting and how much they can contribute for payment of compensation which will ascertain the paying capacity of the each unit. Such an exercise has not been made by the committee or by the Expert who was engaged by the applicants to assess the damage and as such, we are not inclined to accept the report of the Joint Committee or the report of the Expert prepared at the instance of the applicants on the question of fixation of compensation by them, but we are adopting an independent method for this purpose.

74. So under such circumstances, instead of applying that principle, we feel that loss of income can be assessed as Rs.10,000/- per Hectare per year and the period can be taken as five years and the amount of compensation can be reassessed on that basis. If the calculation is made on the above basis, then each applicant will be entitled to the following amount as compensation for their loss of income:-

Total extent of Sl. Name of the the Nature of Amount Calculation No. person property  
cultivation payable (in Hectares) 1 P.V.Subramanian/ 4.78.50 Cholan 10,000 x 1  
Applicant st and 4.78.50 x 5 Rs.2,39,250/-

2	G. Kandhasamy/ 2 Applicant nd	1.88.50	Coconut Coconut and Cholan	10,000 x 1.88.50 x 5	Rs.94,250/-
3	N. Selvaraj/ 3 Applicant rd	5.04.00	Mango, Coconut and Cholan	10,000 x 5.04.00 x 5	Rs.2,52,000/-
4	N. Sivaji (Died)/ 4 Applicant th	3.30.50	Teak wood and coconut	10,000 x 3.30.50 x 5	Rs.1,65,250/-

The amount payable to the 4th Applicant will be payable to his legal heirs who have been impleaded as additional Applicants No. 7 to 10 equally.

5 S. Selvaraj/ 1.348 Coconut 10,000 x Rs.67,400/-

6	N. Saktivel/ 6th Applicant	3.47.50	Coconut and Cholam	10,000 3.47.50 x 5	x Rs.1,73,750/-
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75. The applicants are entitled to get the above amount as compensation.

Though individual units were not parties to the proceeding, the Association representing most of the units was impleaded as 8th Respondent and they were defending the case of the units. Apart from that, non-member units of the 8th Respondent Association were themselves impleaded as additional Respondents No.9 to 28, but they have not filed any statement. It cannot be said that the units were not aware of the pendency of this proceedings. On each occasion, when the Joint Committee as well as the State Pollution Control Board inspected and gave directions, they were aware of the proceedings and when the units were closed for not obtaining consent, they have not challenged the same as well. Since there was substantial representation of the units through their Association, even in their absence, the matter can be proceeded with.

76. Further, on the last hearing date, the learned counsel appearing for the 8 th Respondent submitted that the Association has been dissolved. But such an attitude of the units cannot be appreciated and that cannot be a ground for impleading the individual units for this purpose, especially when till the quantum of compensation has been assessed by the Joint Committee, they were actively participating through the Association. So, the Mormilagai manufacturing units (130 Nos.) which have been enumerated in the annexure attached to the Joint Committee report are liable to pay the amount to the applicants in the ratio in which the quantum of compensation earlier fixed by the Joint Committee was apportioned on the basis of the quantum of compensation fixed by this Tribunal and the District Collector as well as the Tamil Nadu Pollution Control Board has to apply that principle for the purpose of recovery of the amount from each unit. Since the applicants have not quantified the quantum of compensation in the application and not paid the Court Fee for the same as required under the National Green Tribunal Act, 2010, before paying the amount to the applicants, the District Collector is directed to deduct (1%) One percent Court Fee from the quantum of compensation payable to each applicant and then remit that amount into the account of the National Green Tribunal and the balance amount alone need to be paid to the applicants as compensation.

77. As regards the compensation payable for violation of the environmental laws is concerned, the State Pollution Control Board is directed to take appropriate steps and quantify the quantum of compensation payable by each unit applying the principles laid down by the Central Pollution Control Board (CPCB) in this regard and take steps to recover the amount from the units by initiating proceedings against them giving opportunity and recover the amount in accordance with

law.

78. Since the Joint Committee has already found that there is no necessity for remediation of the land, as there was lot of improvement in the land and the cultivation has not been affected and there was no further possibility of any contamination of the land and the pollution control mechanism provided by each unit is sufficient and adequate, there is no necessity to assess any compensation for the remediation process and direct the units to take steps for remediation as claimed in the application.

79. The apprehension of the applicants of future pollution can be removed by directing the State Pollution Control Board to have a periodical inspection and if there is any violation found, directing them to take action against the erring units will be sufficient and that will meet the ends of justice.

80. So under such circumstances, we feel that the application can be disposed of by giving the following directions:-

a. The Mormilagai manufacturing units represented by the 8th Respondent Association and also by the additional Respondents No.9 to 28 are responsible for the damage caused and they are liable to pay the compensation to the applicants.

b. The applicants are entitled to get the compensation as mentioned below which the Mormilagai units are liable to pay in the proportion as calculated by the Joint Committee depending upon their manufacturing capacity and this will have to be calculated by the State Pollution Control Board while initiating action for recovery of the amount with the help of the District Collector from the respective Mormilagai manufacturing units on the basis of the compensation awarded by this Tribunal.

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No.	Name of the person	Amount payable
1.	P.V.Subramanian/ 1st Applicant	Rs.2,39,250/- (Rupees Two Lakhs Thirty Nine Thousand Two Hundred and Fifty only)
2.	G. Kandhasamy/ 2nd Applicant	Rs.94,250/- (Rupees Ninety Four Thousand Two Hundred and Fifty only)
3.	N. Selvaraj/ 3rd Applicant	Rs.2,52,000/- (Rupees Two Lakhs Fifty Two Thousand only)
4.	N. Sivaji (Died)/ 4th Applicant	Rs.1,65,250/- (Rupees One Lakh Sixty Five Thousand Two Hundred and Fifty only)



The amount payable to the 4th Applicant will be payable to his legal heirs who have been impleaded as additional Applicants No. 7 to 10 equally.

5. S. Selvaraj/ Rs.67,400/- (Rupees Sixty Seven Thousand and 5th Applicant Four Hundred only)

6. N. Sakthivel/ Rs.1,73,750/- (Rupees One Lakh Seventy Three 6th Applicant Thousand Seven Hundred and Fifty only) c. Since the applicants have not quantified the quantum of compensation in the application and not paid the Court Fee for the same as required under the National Green Tribunal Act, 2010, before paying the amount to the applicants, the District Collector is directed to deduct (1%) One percent Court Fee from the quantum of compensation payable to each applicant and then remit that amount into the account of the National Green Tribunal and the balance amount alone need to be paid to the applicants as compensation.

d. Since the Joint Committee has found that no reclamation is required, there is no necessity to direct the Mormilagai units to pay any environmental compensation for restoration of the damage caused to the environment as claimed in the application.

e. The Mormilagai manufacturing units are directed to implement the various recommendations made by the Joint Committee in the various reports and also directed by the State Pollution Control Board in its letter and spirit.

f. The State Pollution Control Board is directed to take action against the units which were running the unit in violation of the environmental laws earlier, till they obtained the consent and license from the authorities and calculate the amount of compensation for the violation, applying the Central Pollution Control Board guidelines and take steps to recover the amount from the Mormilagai units after affording them an opportunity by giving show cause notice, getting their explanation and hearing and pass appropriate orders of imposing compensation and take steps for recovery of the amount in accordance with law.

g. The State Pollution Control Board is also directed to monitor the functioning of the units periodically and if there is any violation found, they are directed to take appropriate action against the erring units in accordance with law.

h. If there is any deficiency found in the remedial measures already provided to avoid pollution, the State Pollution Control Board is at liberty to give further directions (if any) required to the Mormilagai units to implement the same and if such a direction is given, the Mormilagai manufacturing units are directed to implement the same in its letter and spirit.

i. As regards the disposal of the residue salt is concerned, the Mormilagai manufacturing units are directed to strictly comply with the recommendations made by the Joint Committee as well as by the State Pollution Control Board in this regard and if any further scientific method is available and brought to the notice of the Pollution Control Board, then they are at liberty to implement the same

by directing the Mormilagai manufacturing units to comply with the same in its letter and spirit.

81. The points are answered accordingly.

82. In the result, this Original Application is allowed in part and disposed of with the following directions:-

(i) The Mormilagai manufacturing units represented by the 8th Respondent Association and also by the additional Respondents No.9 to 28 are responsible for the damage caused and they are liable to pay the compensation to the applicants.

(ii) The applicants are entitled to get the compensation as mentioned below which the Mormilagai units are liable to pay in the proportion as calculated by the Joint Committee depending upon their manufacturing capacity and this will have to be calculated by the State Pollution Control Board while initiating action for recovery of the amount with the help of the District Collector from the respective Mormilagai manufacturing units on the basis of the compensation awarded by this Tribunal.

Sl.

No.	Name of the person	Amount payable
1.	P.V. Subramanian/ 1st Applicant	Rs.2,39,250/- (Rupees Two Lakhs Thirty Nine Thousand Two Hundred and Fifty only)
2.	G. Kandhasamy/ 2nd Applicant	Rs.94,250/- (Rupees Ninety Four Thousand Two Hundred and Fifty only)
3.	N. Selvaraj/ 3rd Applicant	Rs.2,52,000/- (Rupees Two Lakhs Fifty Two Thousand only)
4.	N. Sivaji (Died)/ 4th Applicant	Rs.1,65,250/- (Rupees One Lakh Sixty Five Thousand Two Hundred and Fifty only)

The amount payable to the 4th Applicant will be payable to his legal heirs who have been impleaded as additional Applicants No. 7 to 10 equally.

5. S. Selvaraj/ Rs.67,400/- (Rupees Sixty Seven Thousand and 5th Applicant Four Hundred only)

6. N. Sakthivel/ Rs.1,73,750/- (Rupees One Lakh Seventy Three 6th Applicant Thousand Seven Hundred and Fifty only)

(iii) Since the applicants have not quantified the quantum of compensation in the application and not paid the Court Fee for the same as required under the National Green Tribunal Act, 2010, before paying the amount to the applicants, the District Collector is directed to deduct (1%) One percent Court Fee from the quantum of compensation payable to each applicant and then remit that amount into the account of the National Green Tribunal and the balance amount alone need to be paid to the applicants as compensation.

(iv) Since the Joint Committee has found that no reclamation is required, there is no necessity to direct the Mormilagai units to pay any environmental compensation for restoration of the damage caused to the environment as claimed in the application.

(v) The Mormilagai manufacturing units are directed to implement the various recommendations made by the Joint Committee in the various reports and also directed by the State Pollution Control Board in its letter and spirit.

(vi) The State Pollution Control Board is directed to take action against the units which were running the unit in violation of the environmental laws earlier, till they obtained the consent and license from the authorities and calculate the amount of compensation for the violation, applying the Central Pollution Control Board guidelines and take steps to recover the amount from the Mormilagai units after affording them an opportunity by giving show cause notice, getting their explanation and hearing and pass appropriate orders of imposing compensation and take steps for recovery of the amount in accordance with law.

(vii) The State Pollution Control Board is also directed to monitor the functioning of the units periodically and if there is any violation found, they are directed to take appropriate action against the erring units in accordance with law.

(viii) If there is any deficiency found in the remedial measures already provided to avoid pollution, the State Pollution Control Board is at liberty to give further directions (if any) required to the Mormilagai units to implement the same and if such a direction is given, the Mormilagai manufacturing units are directed to implement the same in its letter and spirit.

(ix) As regards the disposal of the residue salt is concerned, the Mormilagai manufacturing units are directed to strictly comply with the recommendations made by the Joint Committee as well as by the State Pollution Control Board in this regard and if any further scientific method is available and brought to the notice of the Pollution Control Board, then they are at liberty to implement the same by directing the Mormilagai manufacturing units to comply with the same in its letter and spirit.

(x) Considering the circumstances, parties are directed to bear their respective cost in the application.

(xi) The Registry is directed to communicate this order to the official respondents including the Tamil Nadu Pollution Control Board and the District Collector for their information and compliance of directions.

83. With the above observations and directions, this Original Application is disposed of.

Sd/-

Justice K. Ramakrishnan, JM Sd/-

Dr. Satyagopal Korlapati, EM O.A. No.410/2013 (SZ), 28th February 2022. Mn.