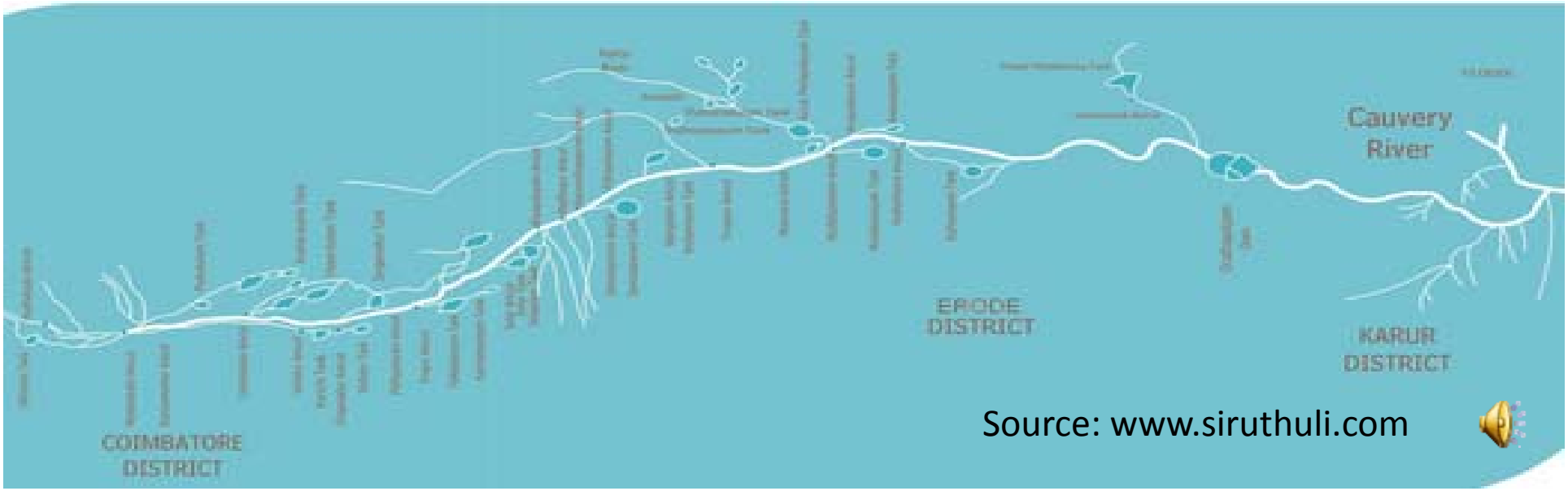
Noyyal River Pollution excreta happens!!!!

T. Mohan

LOCATION

- The Noyyal River, a tributary of the river Cauvery rises from the Vellingiri hills in the Western Ghats in Tamil Nadu, southeastern India and drains into the Cauvery River.

- The Noyyal flows through the districts of Coimbatore, Erode and Karur and the urban centres of Coimbatore and Tiruppur, in western Tamilnadu



Source: www.siruthuli.com

CHARACTERISTICS

Source : Rainwaterharvesting.org on 28th February 2013


Source : Daily post

The river's basin is 180 km (110 mi) long and 25 km (16 mi) wide and covers a total area of 3,500 km² (1,400 sq mi).

Cultivated land in the basin amounts to 1,800 km²while the population density is 120 people per km² in the countryside, and 1000 people per km² in the cities.

The area is known for its scanty rainfall and the development of the Noyyal River Tanks System to hold any overflow from the rains plus the water of the Northeast and Southwest monsoon season was ecologically important.

The 173 km long tributary of the Cauvery River fills 32 interconnected tanks during its course.


Source : Penmai.com

INDUSTRIAL DEVELOPMENT


Source : Rediff.com

During the post liberalization period of the Indian economy, the cotton and textile and garment industries grew swiftly and by the 1990s accounted for a major share of Indian exports

Compendium of Textile Statistics, 1999.

The percentage of textiles in the total exports from India increased and accountedfor 14% of the national industrial production and about 4% of GDP by 1999

Ministry of textiles, 1999.

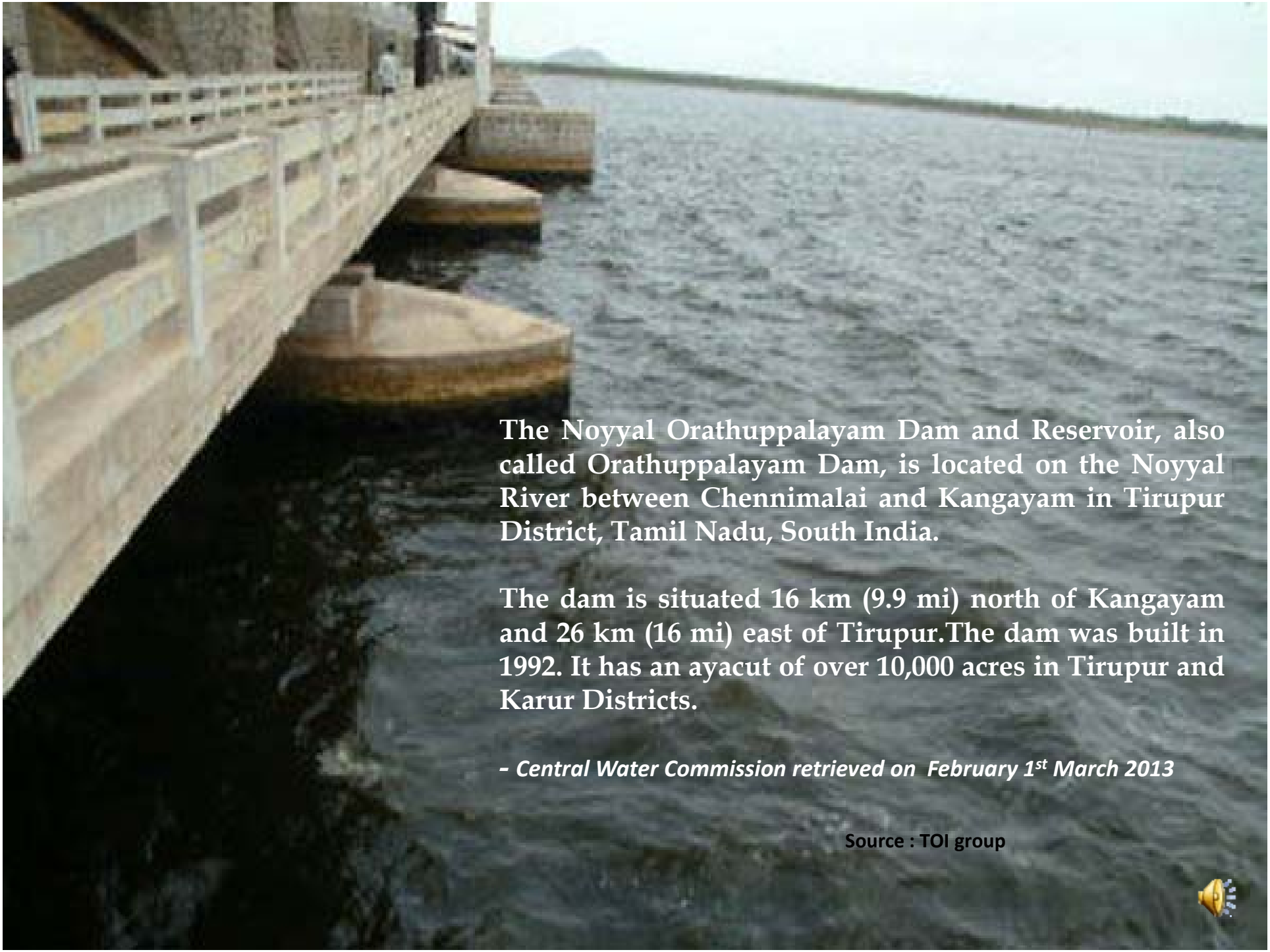
Tirupur, a major knitwear centre in India, had more than 9000 small-scale units **producing one-third of the total apparel exports from India.**

By 2005, there were more than 729 bleaching and dyeing units in Tirupur


Source : Rediff.com

"Tirupur's textile industry uses bleaching liquids, soda ash, caustic soda, sulphuric acid, hydrochloric acid, sodium peroxide, and various dyes and chemicals for its dyeing and bleaching processes. Other harmful substances include a number of dyes, many based on benzidine structures or heavy metals, both known to be toxic Most of these chemicals are not retained in the finished hosiery goods, but are discharged as wastewater. The wastewater is acidic, smells terrible and contains dissolved solids, which increase the biological and chemical oxygen demand in water. With no freshwater available for dilution the groundwater from Coimbatore and Tiruppur is no longer suited for irrigation."

– Centre for Science and Environment via Rainwaterharvesting.org

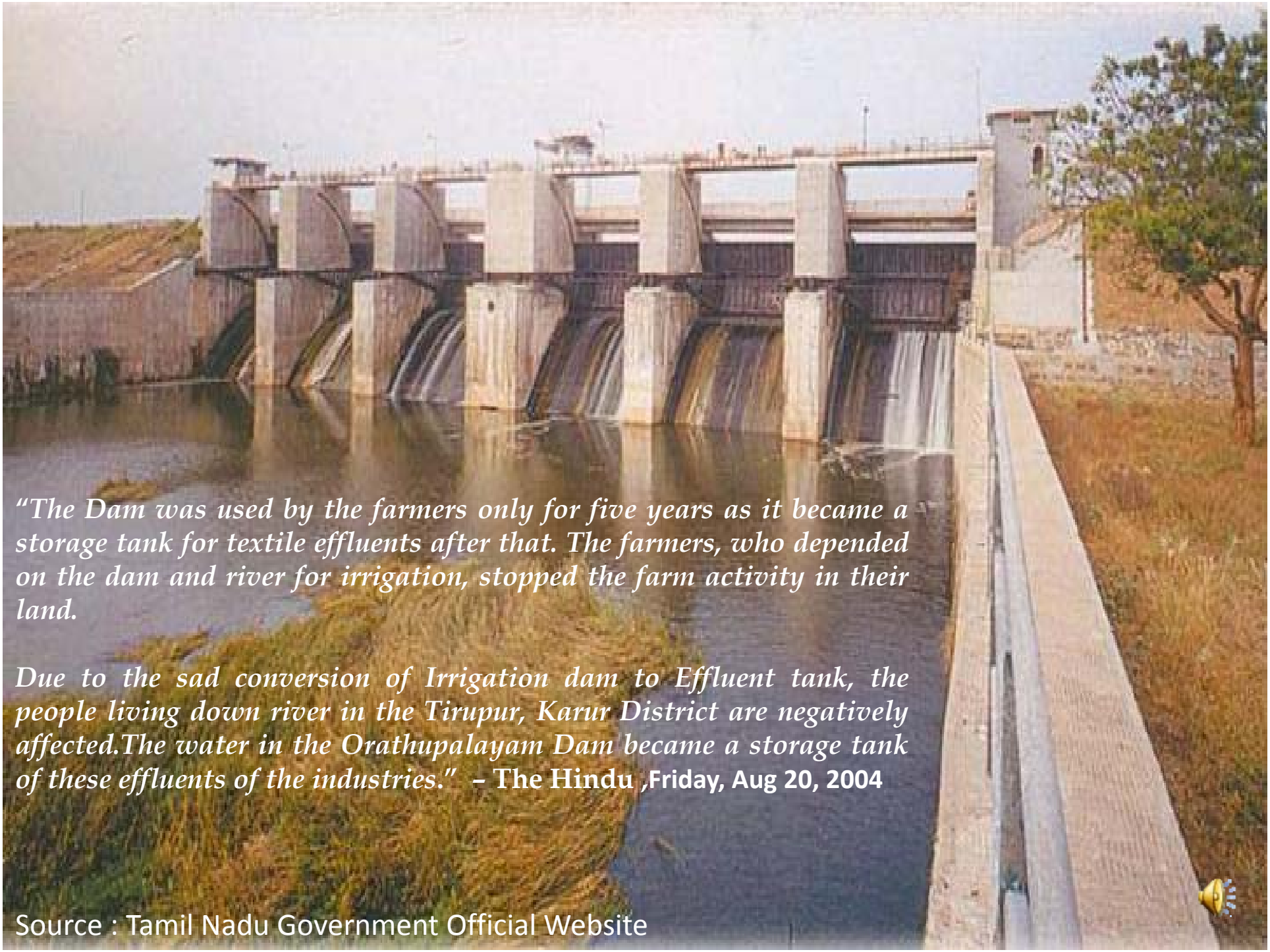


The Noyyal Orathuppalayam Dam and Reservoir, also called Orathuppalayam Dam, is located on the Noyyal River between Chennimalai and Kangayam in Tirupur District, Tamil Nadu, South India.

The dam is situated 16 km (9.9 mi) north of Kangayam and 26 km (16 mi) east of Tirupur.The dam was built in 1992. It has an ayacut of over 10,000 acres in Tirupur and Karur Districts.

- Central Water Commission retrieved on February 1st March 2013

Source : TOI group



"The Dam was used by the farmers only for five years as it became a storage tank for textile effluents after that. The farmers, who depended on the dam and river for irrigation, stopped the farm activity in their land.

Due to the sad conversion of Irrigation dam to Effluent tank, the people living down river in the Tirupur, Karur District are negatively affected.The water in the Orathupalayam Dam became a storage tank of these effluents of the industries." **– The Hindu ,Friday, Aug 20, 2004**

Source : Tamil Nadu Government Official Website

Impact Analysis

On the basis of studies carried out by Government Departments include Central Ground Water Board 1983, 1993, and 1999, Tamil Nadu Water Supply and Drainage Board 1999, 2001, and 1995-2001 and the Public Works Department 2002-03.,2005-2007,2011., Loss of ecology (prevention & payments of compensation) authority report, 2003

Source: The Hindu Media Group, 2002

GROUND WATER

MADRAS SCHOOL OF ECONOMICS, WORKING PAPER 2007

- ✓ **Open wells and bore wells in and around Tiruppur and the downstream stretch of Noyyal exhibit high levels of TDS (most areas > 3000 mg/l and some places even up to 11,000 mg/l) and chloride (generally > 2000 mg/l and certain areas upto 5000 mg/l) due to industrial pollution.**

- ✓ **Scientific studies pointed to a a high possibility in increase in pollution concentration in ground water in the near future if effluent discharge by textile processing units continues.**

- ✓ **High concentration of heavy metals in ground water including zinc, chromium, copper, and cadmium was reported**

Source : Audubon Magazine

✓**Studies revealed that open and bore wells located around 4 kms radius of Orathapalayam reservoir are highly polluted with high TDS level and concentration of various salts.**

✓**The studies also show that the available ground water is not suitable for domestic, industrial or irrigation use.**

SURFACE WATER

✓Earlier studies indicated that pollution concentration in Noyyal river was low till the river reached Tiruppur but increased considerably in Tiruppur area, due to textile effluent discharge, and continues downstream up to Orathapalayam. But after Orathapalayam studies indicated that was some improvement in river water quality.

✓Studies indicated that the existing moderate flow in Noyyal was not sufficient for diluting the pollutants and for several months in a year the only flow in the river was sewage and industrial effluent .

✓ By the mid 1990s, the Orathapalayam reservoir and system tanks had been badly affected by industrial pollution.

✓High alkalinity, chloride, electrical conductivity, iron, phosphate and BOD in the water at Orathapalayam reservoir.

✓River and reservoir were not fit for aquatic organisms including fish.

✓Except for the rainy season when there is some dilution, the surface water became unfit for irrigation and could not obviously used for drinking water or for livestock rearing.

ZONE WISE ANALYSIS

Zone I is the upper reach of the basin from the origin of the river, which is free from pollution since there is no industry and few human settlements.

Zone II is the next stretch where Coimbatore city is located. Large quantities of sewage along with industrial effluents are discharged into the river. The ecosystem degradation is significant in this stretch, but the effluents are not felt downstream because most of the pollutants have settled in the large tank at Sulur outside of Coimbatore. The river is relatively less polluted as it enters the town of Tiruppur.

Zone III, where Tiruppur town is located is the most polluted stretch of the river.From Tiruppur large quantities of textile effluents are discharged intothe land and river. Most of the effluents collect at the Orathapalayamreservoir downstream of Tiruppur.

Zone IV is from Orthapalayam to the confluence point with the Cauvery. The pollution impact in Zone IV is not serious when compared to Zones II and III

LIST OF VILLLAGES AFFECTED BY TIRUPPUR CLUSTER OF TEXTILE INDUSTRIES

Class I	Class II	Class III	Class IV	Class V
EC<1.5mS/cm	EC1.5 to 3 mS/cm	EC 3+ to 5.25 mS/cm	EC5.25+ to 7.5 mS/cm	EC More than 7.5 mS/cm
District: Coimbatore; Taluk: Tiruppur				
Iduvai Muttanpalayam Nachipalayam	Chettipalayam Nallur Thottipalayam	Mangalam Mannarai Mudalipalayam Neriperuchal Tiruppur	Andipalayam Veerapandi	None
Avinashi Taluk				
None	None	Kaniampundi Pudupalayam	None	None
District: Erode ; Taluk : Kangeyam				
Mangalapatti Nathakadaiyur* Mullaipuram Parancherivazhi* Nallroad*	Kiranur Marudurai Muthur Cherinamuthur Udhayam	Ganapati palyam Pallayakottai Kuttaipalayam Vellamapalayam Maravapalayam	None	Kathangani Thambureddipalayam
Perundurai Taluk				
Kuppachipalayam* Murugangattoluvu	Basuvapatti Ekkatampalayam Punjaipallatoluvu Elaigramam Lanjaipallatoluvu Punchaiuttukuli Rakkiyapalayam Vaddukampalayam	Agrahara Kattanganni Morattupalayam	Agrahara periyapalayam Pallavarayanpalayam Sarkar Kathanganni	Anaipalayam Kodumanal Oruthupalyam Sarkar Periappalyam

Source : Assessment of the loss to ecology and environment in the affected areas Report, Anna University & CSE, 2003

Erode Taluk Class I	Class II	Class III	Class IV	Class V
Arachchalur Avadaiyaparai* Chinnasamundram Ichiapalyam* Nagamanakkanpalayam Kodumudi Sivagiri	Vadiullamangalam Kollankoil	Iyyampalyam Elunuttumangalam Devikiammapuram Anjur	Kongudampalayam Murungayampalaym	None
District: Karur **Karur Taluk**				
Kongupalayam **Aravakuruchi Taluk**	Vettamangalam	Punjaipugalur Thirukkottuthurai Punjaithottakurichi Attur Manmangalam Kadaperi Punjaikadambukurichi Minnampalli Kupachipalyam Panchamadevi (The above ten villages are in the ayacut area of Muttur Authupalyam reservoir receiving flow from the Orathupalyam Dam)	None	None
Mettupalyam Punnam	Anjur Karulai (Karaveli)	Thukkachi Tennilai (West) Kuppam Athipalyam	Munnur Tennilai (East)	None

Note : 1. Villages falling under class II, class III, class IV and class V are affected villages.

2. Number of villages studied are 88 out of which 68 are affected villages.

* Collector Erode has also sent list of agricultural land owners in these six villages for the Authority's consideration But the Authority noted that these villages fall in class I, unaffected class.

Menotised loss of ecology in villages affected by Tirupur industrial cluster in terms of loss in agricultural productivity

Item	Revenue Loss per year in Affected Village – Average for 1997 – 2001 (Rs)											
	Coimbatore *				Erode **				Karur ***			
	Class II	Class III	Class IV	Class V	Class II	Class III	Class IV	Class V	Class II	Class III	Class IV	Class V
Gross Revenue loss (Rs/ha)	300	1400	5800	9300	900	4600	14400	21400	900	4600	14400	21400
Area of Affected village (Ha)	7008	9461	3002	Nil	11508	13016	4887	6153	5996	20040	4875	Nil
Cultivated area of affected villages (Ha)	1663	4204	913	Nil	7274	6312	3175	2685	1364	6130	109	Nil
Agricultural Productivity Loss (million Rupees)	0.4989	5.8856	5.2954	Nil	6.5466	29.0352	45.7200	57.4590	1.2276	28.1980	1.5696	Nil
Total (Rs.)	**1,16,79,900**				**13,87,60,800**				**3,09,95,200**			
Grand Total (Rs.)	**18,14,35,900**											

Class II : 1.5 to 3 mS/cm; Class III : 3 to 5.25 mS/cm; Class IV : 5.25 to 7.5 mS/cm; Class V : > 7.5 mS/cm;

* covered in Tirupur and Avinashi taluks; ** covered in Perundurai, Erod and Kangayam; *** covered in Karur and Aravakurichi taluks

"Around28,596 farmers located in 68 villages in seven taluks in the Noyyal River Basin are severely affected bye Tripur Industrial clusters"

-Assessment of the loss to ecology and environment in the affected areas Report, Anna University & CSE, 2003

POLLUTION LOAD GENERATED BY TIRUPPUR TEXTILE PROCESSING UNITS FROM 1980 to 2003 IN NOYYAL RIVER BASIN

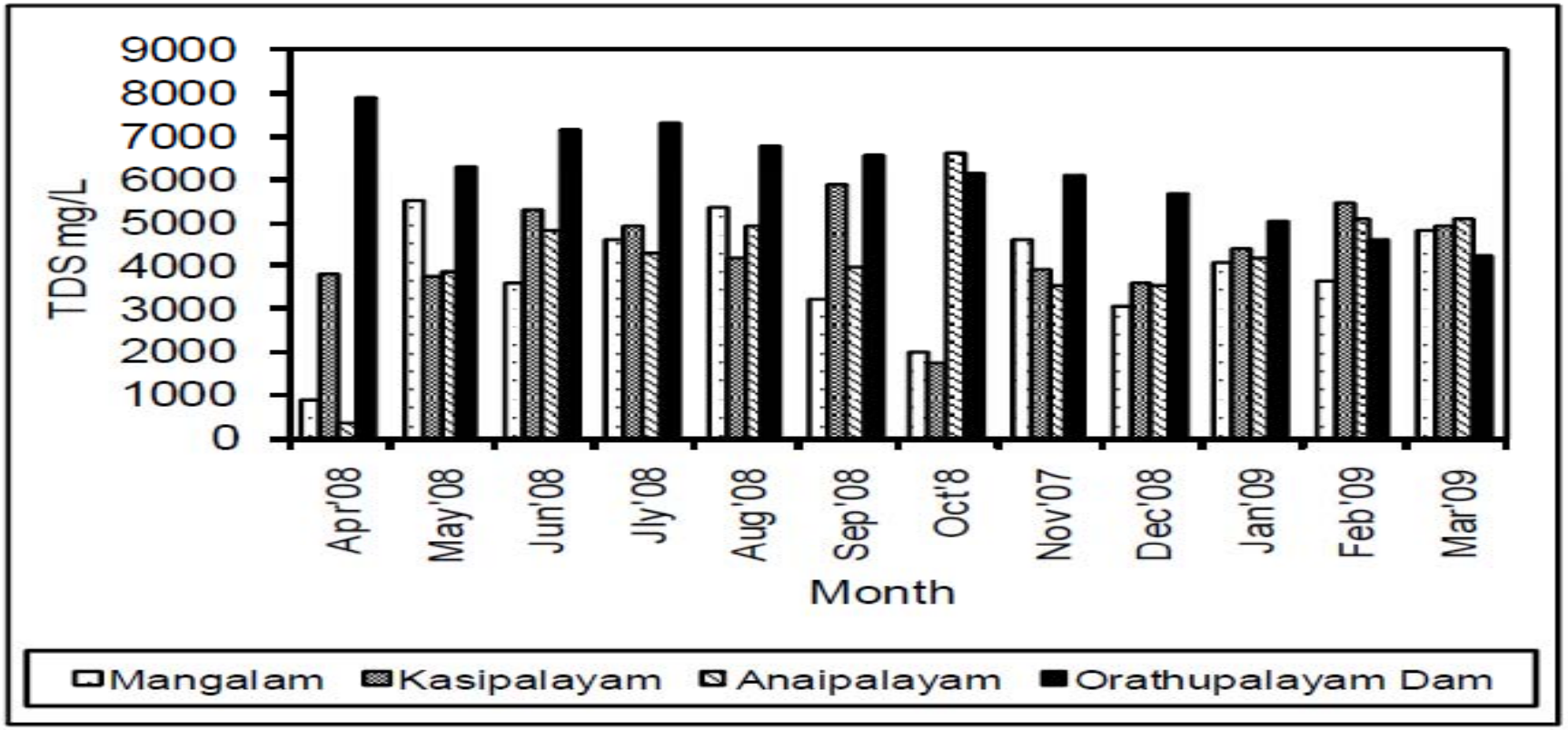
(Quantity in Tonnes / Year)

Period	TDS	CHLORIDE	SULPHATE	TSS	COD	BOD	OIL&GREASE
1980-2003	2877066.17	1585933.8	161726.82	110928.95	104944.33	31990.55	1633.95

Note: TDS – Total dissolved solids
TSS – Total Suspended Solids
COD – Chemical Oxygen Demand
BOD – Biochemical Oxygen Demand

From 1980 to 2002, the cumulative TDS load discharged by the Tiruppur units alone is estimated to be 2.87 million tonnes.). Around 80 per cent of the pollution load has accumulated in the Tiruppur area. Rainfall (annual average of 617 mm) has only a marginal effect in reducing the severity of the impact.

Source : Assessment of the loss to ecology and environment in the affected areas Report, Anna University & CSE, 2003



Treated effluents samples were collected every month from the out let of 7 operational CETPs from April 2008 to March 2009. At the same time Noyyal river water samples were collected at three locations (i.e). Mangalam (2 km upstream of Tiruppur), Kasipalayam (5km down stream of Tiruppur) and Anaipalayam (20 km down stream of Tiruppur). Similarly at Orathupalayam dam (32 km down stream of Tiruppur) also water samples was collected in the same period

-Journal of Environmental Research And Development Vol. 5 No. 3, January-March 2011

IMPACT ON AGRICULTURE

– Compensating the Loss of Ecosystem Services Due to Pollution in Noyyal River Basin, Tamil Nadu **Paul P. Appasamy,2003**

About 123 ha of cultivable land have become uncultivable by soil pollution.

The water from Noyyal polluted villages is found to have high concentrations of electrical conductivity (EC) which is the main indicator of irrigation of water quality.

Using GIS the total cultivatable area in the pollution affected zone was estimated to be 1,46,389 acres, of which 36,139 acres (24.7 per cent) could be classified as injurious, 53,938 acres (36.8 per cent) as critical and 56,312 acres (38.5 per cent) as normal for cultivation

Farmer Nachimuthu Gounder is now a shepherd because his land has turned barren

The area located on both sides of the Noyyal between Tiruppur and Orathapalayam (located in Tiruppur, Perundurai and Kangayam taluks) was identified as the area affected by textile effluents from Tiruppur and analysis was carried out for irrigated and unirrigated areas

NOYYAL RIVER – A LEGAL JOURNEY

W.P.No.1649 of 1996 filed by Mr.P.R.Kuppusamy, advocate, as the President of Karur Taluk Noyyal Canal Agriculturists Association praying for directions to the PCB to take action against polluting dyeing and bleaching units polluting the Noyyal river by discharging their trade effluents directly or indirectly into the river and further take steps to clean up the river of its present pollution.

06.03.1997:

By orders of the High Court, time was granted to complete the construction of individual Effluent Treatment Plants by the end of April 1997 and the construction of Common Effluent Treatment Plants by 10.06.1997.

If the units failed to set up the individual ETP or the CETP within the time prescribed and obtain consent, the TNPCB and the District Collector, Coimbatore District were directed to ensure the units did not continue to operate and were sealed and TNPCB shall not consider their application for consent until further orders.

11/2/1998 :

Joint memo filed by the parties to the effect that the units connected to Common Effluent Treatment Plant presently under the construction would complete and commission the plants on or before 11.05.1998

The bleaching and dyeing units agreed to the constitution of Flying Squads by the Pollution Control Board (PCB)for the purpose of entry and inspection and gathering of samples without any prior notice to ensure that the effluent treatment plants were functioning and meet the standards set by the Board. The PCB was to monitor the functioning of the effluent treatment plants by constituting Flying Squads.

Industry agreed to pay the costs of clean up of the Orathupalayam Dam as and when the estimates were drawn up and finalised by the PCB.

26/2/1998

W.P.No.1649 of 1996 was disposed of in terms of the said joint memo. It was also made clear that in default thereof, it was for the Pollution Control Board to take appropriate steps. The Pollution Control Board also undertook to implement the Pollution Laws in accordance with law. It was observed that the industries have been allowed only as an interim measure to continue for three months and if they fail to obtain consent within three months the Pollution Control Board is directed to implement the Pollution Control and Environmental laws forthwith.

12.08.1998

The TNPCB had requested the PWD to prepare an estimate for cleaning up of the Orathupalayam dam.

08.01.1999

The appeal filed by industry before the Hon'ble Supreme Court was disposed of with a direction to the petitioner to go before the Hon'ble High Court to ventilate their grievances.

21.03.2001

Chief Engineer, Water Resources Organization, Pollachi Region furnishes estimate for desilting the chemicals in the water spread area of Noyyal Orathupalayam reservoir – Estimated at Rs.12.50 crores

2001-2003

Repeated communications dated 7.9.2001, 19.12.2001, 5.4.2002, 26.5.2002, 1.7.2002, 14.8.2003 and 22.10.2003 had been sent by the TNPCB to the industry to deposit Rs.12.50 crores for cleaning up of the Orathupalaym dam.

The allegations of the farmers were that:

1998 to 2003

➢Inspite of the final orders passed on 29.02.1998, based on the joint memo filed by the parties no steps had been taken to implement the said orders.

The allegations of the farmers were that:

➢No steps had been taken by the industrial units to install the necessary equipments or machineries to treat the polluted trade effluents in their units and obtain consent on or before 11.05.1998, after satisfying the standards prescribed by the Pollution Control Board, inspite of their specific undertakings made in the joint memo dated 11.02.1998.

➢The Pollution Control Board had also failed to implement the Pollution Control and Environmental laws, inspite of the specific directions issued by the Hon'ble High Court in the orders dated 29.02.1998, for reasons best known to themselves.

➢On the other hand, the Pollution Control Board had issued consent to the units, even though they had not completed and commissioned the necessary and required treatment systems to meet the standards prescribed by the Board, in violation of their own undertakings and the orders dated 29.02.1998 passed by the Hon'ble High Court.

16.10.2003 :

Alleging that innumerable representations made to the authorities concerned had given no result, the Noyyal Ayyacutdars' Association moved the High Court in W.P.No.29791 of 2003, praying for a writ of mandamus directing the respondents to implement the orders of this Hon'ble Court dated 26.2.98 and made in W.P.No.1649 of 1996, passed in pursuance of the joint memo filed with the consent of all the parties and in furtherance thereof direct respondents 1 to 3 to clean the river water stored at Orathupalayam dam within a stipulated time frame, with its own funds and then get the same reimbursed from the bleaching and dyeing units in Tirupur area and prevent future pollution of the Noyyal river from beginning to end. They also sought interim orders to prevent further discharge of effluent into the Noyyal.

11.11.2003

TNPCB filed its Report dated 05.11.2003 which stated :

➢87 Million Liters per day of effluent was being discharged into Noyyal river either directly or indirectly from the 729 units and that the TDS value in the effluent discharged is ranging from 3000 mg/l to 7000 mg/l

➢ The Hon'ble Supreme Court of India in its order dated 28.08.1996 in W.P.(C).No.914 of 1991 stated that the standards stipulated by the Board regarding TDS and approved by the NEERI, Nagpur shall be operative and the textile processing units in the State of Tamilnadu shall comply with the said standards.

22.09.2004

One another writ petition in W.P.N o.27540 of 2004 was filed by CARE Trust, Coimbatore praying for a writ of mandamus forbearing the Government of Tamilnadu from in any way desilting the Orathupalayam dam and subsequently direct the State Government to clean the Orathupalayam dam by advances methods like setting up ozone treatment plants and Reverse Osmosis Plants in Orathupalayam dam and direct the respondents 4 to 8 to set up Ozone Treatment Plants and Reverse Osmosis Plants in their unit.

18.10.2004

Order was passed in W.P.No.27540 of 2004 to the effect that the Government is at liberty to take appropriate steps or action to prevent further inflow of polluted water from the polluting units on Noyyal river pending further orders.

As per the said orders the TNPCB then issued show cause notices to all the 729 bleaching and dyeing units at Tirupur to achieve Zero Discharge by 31.03.2005 as suggested in the action plan.

28.03.2005:

TNPCB filed an affidavit giving details about the action taken by the Board to prevent pollution of Noyyal river and action required for cleaning up of Orathupalayam dam.

05.05.2005:

Based on the joint memo filed by the parties, the Hon'ble High Court appointed an Expert Committee consisting of six members, with the Collector, Coimbatore District as the Co-ordinator, mentioning its terms of reference to suggest ways and means to clean the Orathupalayam Dam and to prevent the pollution in the Noyyal river.

20.05.2005

As directed, the Expert Committee filed its detailed Interim Report with its recommendations. Under the heading "To prevent Pollution of the river either directly or indirectly by the polluters", the Expert Committee recommended that an independent Monitoring Committee should be appointed by the Court to review and report the progress of the assigned works by the industries, TWAD, TNPCB and PWD once in three months to the Hon'ble Court and based on the progress advice the stakeholders accordingly.

10.06.2005

A memo was filed on behalf of the industrial units agreeing to run only for limited period, namely five days in a week from Monday to Friday instead of all seven days and accordingly the Hon'ble High Court directed the units to run only for a period of five days in a week viz. Monday to Friday.

On the representations that two of the appointed members have been giving professional service to some of the units even after their appointment as members of the Expert Committee and based on the submissions made by the Advocate General, they were relived and after deliberations two other members in their place were nominated.

14.07.2005

The Hon'ble High Court expressed its displeasure on the conduct of the industrial units in not installing the Reverse Osmosis Plants as agreed to reach Zero Discharge status and recorded *"it is agonising to see that all the periodical orders passed by this Court have been consistently disobeyed".*

01.08.2005

By consent all the parties, as recommended by the Expert Committee, the Hon'ble High Court appointed a Committee comprised of 3 lawyers , to monitor the implementation of the Zero Discharge systems by the units.

19.07.2006

The PWD was directed to commence forthwith the cleaning and clearing of the river course from Tirupur upto the dam and keep the river course free of slush formed during the past over 10 years.

After several reports filed by the Expert Committee and the Monitoring Committee, the High Court passed an order on 26.12.2006 issued the following directions:
(a)The CETPs are given time upto the 31 st of July, 2007 to achieve the Zero Liquid Discharge(ZLD) of trade effluents subject to the following conditions :

(i) The concerned CETPs are directed to pay a fine on pro rata basis at the rate of six paise per litre from Ist January, 2007 to 31st March, 2007; at the rate of eight paise per litre from Ist April, 2007 to 31st May, 2007; and at the rate of ten paise per litre from 1st June, 2007 to 31st July, 2007.

(ii) The fine amount payable by the respective CETPs shall be arrived at by multiplying the fine amount i.e. six, eight or ten paise, as the case may be, by the total quantity of discharge of each Member Units of CETP as per the consent certificate or as the quantity found in the application for consent and also by the total number of working days in a month. The fine amount thus calculated shall be paid by the respective CETPs on the last date of every month. In case the CETPs or any of them commit any default in payment of fine, the Pollution Control Board shall direct closure of such defaulting CETP and the Member Units and also disconnect the power supply to such defaulting CETP and the Member Units.

iii) The CETPs or any of them on achieving Zero Liquid Discharge shall satisfy the Pollution Control Board about their ZLD status and the Pollution Control Board upon verification shall issue appropriate certificate from which date, such CETP shall not be liable to pay the fine. In any event, if the CETPs or any of them fail to achieve the ZLD on or before 31st July, 2007, the Pollution Control Board shall forthwith direct closure of such CETPs and the Member Units and also disconnect the power supply to such defaulting CETP and the Member Units.

iv) The respondents 4 to 7 herein are directed to deposit the balance sum of Rs.8.50 Crores out of Rs.12.50 Crores estimated by the P.W.D. towards the cleaning and desilting operations of the Orathapalayam dam to be carried out by the Public Works Department in two equal instalments, the first of such instalments being payable on or before 28th of February, 2007 and the second instalment to be paid on or before the 30th April, 2007.

v) The respondents 4 to 7 are directed to deposit a sum of Rs.22,99,98,548/- being the remaining of the total compensation of Rs.24,79,98,548/- awarded by the Loss of Ecology Authority in its Award dated 17.12.2004. This amount shall also be payable in two equal instalments, the first of such instalments being payable on or before the 28th of February, 2007 and the second instalment to be paid on or before the 30th of April, 2007.

vi) The respondents 4 to 7 are further directed to deposit a sum of Rs.12 crores as an ad-hoc compensation towards the estimated loss for the years 2005, 2006 and 2007. This amount shall be payable in two equal instalments, the first of such instalments being payable on or before 15th June, 2007, and the second instalment to be paid on or before 31st July, 2007.

Against this order, the industry moved the Supreme Court which ultimately disposed off the matter in October 2010, granting time to the industry to complete and operationalise Zero Liquid Discharge system in 3 months time.

Complaining of non compliance with the order of the Supreme Court, farmers again approached the High Court by filing a contempt application.

On January 29, 2011, the *Bench* directed the *Tamil Nadu* government to shut down all dyeing and bleaching units on the banks of the polluted *Noyyal* and disconnect their electricity supply, holding that no unit should be allowed to reopen and operate unless it achieves a stage of zero-discharge of untreated effluents. The court passed this decision in the course of hearing a contempt of court petition filed by the *Noyyal River Ayacutdars Protection Association*.

The contempt petition claimed that the authorities had not honoured the April 2008 orders of the*High Court*. In the petition, the association's president, A.P. Kandasamy, submitted that the court had directed the TNPCB to inspect dyeing and bleaching units in and around Tirupur and take steps to remove the excess production machinery with the assistance of the court-appointed monitoring committee, which was not carried out.

The petitioner's primary submission was that the pollution of the river had continued unabated since 2007, and units continued discharging untreated effluents without paying a fine – this despite the fact that closure orders had been issued to as many as 700 units. The report of the monitoring committee revealed that the excess machinery that the industrial units had installed had not been not removed, and this led to the increase in pollution. Despite the disconnection of electricity, some industries continued operations at night, employing generators.

The level of disobedience led the *Bench* to surmise that the facts revealed a "very gloomy picture" as to the manner in which the TNPCB had dealt with the issue. Having afforded enough opportunities to the industries to make good the damage ensuing from their activities, their non-compliance and disobedience drove the bench to order the immediate closure of all dyeing and bleaching units in the area.

Criminal prosecution was directed to be initiated against violators of the orders, and action was directed to be taken against the officers of the TNPCB for their failure to act, holding that they were fully convinced that unless stringent and deterrent action is taken by ordering an immediate closure of the units, the water of the *Noyyal* cannot be made free of the poisonous substances these units discharge, and the water will not become fit for human consumption.

In the meantime, the state government announced assistance to the industry to an extent of Rs.200 crores and the Board commenced grant of permission to recommence operations to several hundred units. Joint inspection reports filed into Court by the PCB and the Monitoring Committee team had not recommended recommencement of operations by most of these units but the Board permitted trial runs of these units which trial runs have continued for over 1 ½ years in the case of some units.

In another development the State Government at the request of the PCB issued a government order to advance a loan of Rs.75 crores to the Board for purposes of distribution of compensation to more than 500 members of the Noyyal Ayactudars Association, the Petitioner who had been waging the relentless legal battle from 2003.

Scores of petitions came to be filed before the High Court challenging this government order alleging that this was unfair discrimination as approximately 28,000+ farmers had been found affected by the LoE and that to grant compensation of Rs.75 crores to only .500 + of these farmers was intended to purchase peace with the Petitioner association.

In November 2012 the Madras high court quashed this government order and and ordered recovery of 25 crore already distributed to 360 people before it was stayed by the court.

INADEQUACY IN ALLOCATION OF RESTORATION FUNDS

'The Hindu 'newspaper on January 28th 2013 reported the inadequacy in allocation of funds for restoration of Noyyal Report

The report stated that :

'…. Inadequate fund allocation is hampering the ambitious Noyyal river system revival or restoration project and the meagre allocation of Rs. 30 lakh per annum is just proving to be insufficient even for carrying out emergency repairs to the channels and tanks.'

Further it highlights that :

'…. Even the discharged but treated sewage water had helped in ground water recharge in the tanks beyond Singanallur, till Mannarai. Total Dissolved Solids, ranging only from 700 to 1000 units in treated sewage water, could be used for agriculture and ground water recharge though not for drinking water purposes, whereas untreated water was found to be containing closer to 2000 units, which led to the spoiling of Noyyal system in Tirupur region..'

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