TAMIL NADU FARMERS' SUICIDES AND SUDDEN DEATHS -A Fact Finding Report

Introduction

In TamilNadu, primarily in delta region, news in the media about farmers' suicides and sudden deaths shocked everyone. Initially started with one or two deaths per day, the number rose to ten. It was reported that more than 120 farmers have succumbed to suicides and sudden cardiac deaths in 2 months, primarily in the Delta Region, due to the failure of crops owing to non-availability of irrigation water from Cauvery and the failure of North East monsoon.

An age old Tamil poet once bemoaned and remarked that ,"It agonises me, whenever i see a failing crop". Farmers who have inherited this culture, today risk their lives after seeing withering of crops in front of them Nonetheless, a Minister from TamilNadu, has gone on record, saying that the farmers death were due to various family problems and other illness and not due to the failure of crops!

It was in this context, we felt the need for making a comprehensive study on the social and economic mileu of those who died and looking into the micro and macro scenario of the problems around agriculture which led to suicides and sudden deaths.

A group of social activists, organic farmers, eco activists, women rights activists, doctors, human rights and student activists of about 22 members visited the Delta region on 9th and 10th of January, 2017 and has prepared a report with our observations and considered recommendations.

The objective of the visit was to understand the causes of farmers' death by interviewing affected family members, estimate the agrarian crisis and attempt to provide recommendations to central and state government and farming community to overcome the current crisis.

All interviews are video recorded and can be seen in our You Tube Channel viz TuNo Coimbatore.

Some of the group members met on January 8 to plan the visit. We split into three groups and traveled extensively over 1500 Kilo Metres in 3 delta districts of Tanjavore, Nagapattinam and Thiruvarur. But we could reach only up to 47 of the affected families during the entire visit. All the three reports by the three teams are compiled here. We believe that this report will not only serve as a attempt to understand the reasons behind the tree crisis, but also stimulate farming, social and political movements to find solutions to overcome such crisis.

Central and state government always claim that "Agriculture is the backbone of TamilNadu and India.", "India lives in villages." If that is really true, then will it make an attempt to understand the causes of current farmers crisis and propose the changes in agricultural, environmental and public health policy? In particular, will central government will be ready to solve Cauvery water dispute?

If in case current government is not ready to respond to the crisis, then social and political movements ought strongly challenge this situation. It will be well appreciated if this report helps in this direction!

G.THIRUNAVUKARASU, Coordinator, Fact finding Team, Tanjavur, 11.02.17

Fact finding Team's observations:

In order to find facts behind farmers' suicides / sudden deaths, a team under leadership of Mr. Thirunavukarasu traveled to Tanjavur, Thiruvarur, Nagapattinam, Ariyalore and Pudukkottai districts in delta region. A group of social activists, organic farmers, eco activists, women rights- activists, doctors, human rights and student activists visited the Delta region on 9th and 10th of January, 2017. Team members split into three groups and met the relatives of the affected families in delta districts of Tanjavur, Thiruvarur and Nagapattinam.

- 1. List of farmers whom fact finding team visited is attached in Annexure 1.
- 2. Fact finding team developed a questionnaire in order to understand the socio-economic details of the interviewed farmers. Questionnaire is attached in Annexure.□
- 3. The farmers who have died have either committed suicide, or died of heart attack after shock due to crop failure.
- 4. Majority of the farmers who have died, were small and marginal farmers who have less than 3 acres of land. They owned the farm or rented on lease the farmlands of the others.
- 5. Majority of the farmers who expired were of the scheduled castes □.
- 6. Most of the farmers who expired, received high interest loans from private money lenders, micro finance and cooperative organizations. It also included jewel loans. Interest rates ranged from 26% to 120%. Very few got loans from the nationalised banks.
- 7. All those who committed suicide, were under sheer stress after crop failure followed by guilt and shame of not able to return debt. In a way, crop failure and indebtedness and exorbitant interest rates were prime stimulators for the suicides.
- 8. Fact finding team found that in no case, personal or family situation was responsible for farmers' suicides.
- 9. Those who died of heart attack, also might have died due to the above reasons. It might also due to older age, but fact finding team thinks that there is high chance that farmers developed heart attack due to severe distress, since there was no past history of cardiac illness or risk factors. (Cardiologist Dr. Bharat Selvam, a team member of the fact finding committee, has proved with the medical research evidence that severe distress is the main risk factor for sudden cardiac death. His research report is attached in Annexure 2)
- 10. Non availability of Cauvery water and the failure of north east monsoon has affected farmers life adversely. Initially with little flow of water, farmers started sowing seeds and even planted crops. But after Karnataka stopped releasing water from Cauvery River citing low rainfall, crops started drying up.
- 11. Deep wells and tube wells could support only small fraction of crops. Ground water levels have fallen down below 200 feet in many places in delta region. This may be the consequence of non availability of Cauvery water, which was only source of ground water in delta region.
- 12. Even those farmers who have less than 2 acres of land, had debt of not less than one lakh rupees.

- 13. Non availability of water required for irrigation of delta region from Cauvery river is an important reason for crop failure. Although Cauvery water has not been available consistently for many years, situation was worsened this year because of the failure of the monsoon.
- 14. It has been more than 30 years since Tanjavur, known as rice bowl of TamilNadu, has not generated crop for more than 3 planting seasons. It has been more than 20 years since it has not generated crop yield more than 2 planting seasons. But it is first time when Tanjavur could not produce crop yeild for even 1 planting season.
- 15. Minimum support prices for agricultural farm produce is nothing but a farce committed on the farmers. When compared to other sectoral products, farm produce was fixed at very low prices. Farmers get nearly one fourth of their expenditure for their produce. In Annexure 3, Mr. Thirunavukarasu, an engineer and an agricultural researcher present his data on average expenditure for paddy cultivation and income of the farmers.
- 16. Since Cauvery river water is not allowed to reach the sea through its natural path, sea water has seeped into the coastal land. Because of this, ground water has become salty and is least potable. It is surprising to see that tubewells have been installed and license has been given for mineral water business in this despairing situation. (Near Karaikal in Nagapattinum district, there are four mineral water companies which are currently in operation!)
- 17. Because of low water availability, not only farmers have been affected but also the farm laborers. Demonetization has worsened the crisis further as laborers didn't find work, since farm owners could not even pay for their wages owing to shortage of cash.
- 18. Since water bodies are not maintained storage of water further depleted and thus affecting their farming. Local management of water bodies and irrigation is not fully functional.
- 19. As field dried up, National Rural Employment Guarantee Act's (NREGA) 100 days work program is helping farmers to some extent.
- 20. But wages for NREGA work were not deposited in bank accounts for many months. It feels hard to document here that people confessed, "But forTamilNadu government's free rice scheme, delta would have seen more suicides."
- 21. Compensation announced by state government was based on central government's disaster management guidelines. It was not estimated by taking into account of the actual losses incurred by the farmers.
- 22. If this condition continues, farmers said that they have no other option but to quit farming.
- 23. Unlimited levels of mining by sand mafia has worsened the groundwater level.
- 24. When TN government was planning to install two tube wells for research in Arulmozhi Thevan Alattur region of Nagapattinam district, a person named Velumani attempted to set himself on fire demanding drinking water for water stressed villages. Following this incident, district administration announced that whenever there is scarcity for drinking water in the region, water will be distributed from test wells. But administration has not made any arrangements for this facility.
- 25. In short, farmers are affected by multiple factors such as non availability of irrigation sources, depleting ground water, inadequate price for the produce, demonetization etc.
- 26. Majority of farmers affected in delta region are tenant farmers i.e. leasing in other people's farmlands, including temple lands. In unplanned setup of Indian agricultural market, these farmers have to face all difficulties. Tenant farmers are responsible to make all capital investment such as purchasing of seeds, planting costs, ploughing equipments costs etc. On contrary, they are deprived of the benefits provided by government to farmers including credit, other farm inputs & subsidies,

crop insurance and drought relief compensation as they do not hold the dejure lease hold rights. It is so because most of the rental agreements are informal agreements which push tenant farmers to pay the fixed rent irrespective of crop yield which leads to bankruptcy. Majority of the farmers who died were small/marginal farmers with least lands of their own.

Recommendations of fact finding team:

- 1. Although TN government has declared theb State as the one drought affected due to monsoon failure, compensation offered is not according to the ground reality. In delta region, for paddy cultivators compensation of at least Rs.25000 per acre should be given (Annexure 3).
- 2. Families of farmers who died of suicide or sudden death due to unprecedented crop failure and indebtedness, should be given compensation of at least Rs.25 Lac per family.
- **3.** Cauvery water remains life line of the farmers in the delta region. Hence central government should immediately set up Cauvery Management Board and the Regulatory Authority. There is urgent need to implement the Supreme Court's judgment that certain amount of water required by TamilNadu from Cauvery should be made available on a weekly basis.
- **4.** Dues of farm laborers should be cleared for 100 days they worked under NREGA. Moreover, the present employment offered under NREGA has to be enhanced to 200 days.
- **5.** The work offered by NREGA should be used for building structures for watershed management. It will also give more benefits if laborers are asked to work in the farms of small and marginal farmers.
- **6.** State government should intervene to get compensation for those who insured their crops. Government should waive off all the loans borrowed from different organizations by the farmers who died of suicide /sudden death. If state could help all farmers by waiving off all types of debts, it would alleviate the stress on the farmers, economically.
- 7. All lease agreements should be made formal, and tenant farmers should be given access to the benefits including farm credit, loans from banks, insurance and compensation for crop damage. Tenant farmers, who have contributed for the development if the delta region, should be included in the management of water bodies and irrigation. Legal action should be taken to assure land rights to support the tenant farmers immediately. States should take over the maintenance cost of all temples in delta region and temple lands should be distributed to the tenant farmers.
- 8. Tenant farmers and farm laborers should be given access to the management of irrigation systems. Irrigated systems should be rejuvinated to ensure collective right to utilize water.
- 9. As pay for central government employees is compensated with the rise in inflation, minimum support price for farm produce should also be compensated taking inflation into account .
- 10. Region specific instructions should be given by weather forecast and agricultural institutions.
- 11. State could install, if feasible, the community wells or bore/tube wells in areas where there is scarcity of water for drinking and farm use.
- 12. State should withdraw license issued to mineral water units which exploit groundwater in the delta region.
- 13. Sand mining activity in Cauvery river should be banned in order to protect ground water.
- 14. State should make facilities available to ensure availability of seeds, equipment and technology for local drought resistant varieties of crops.
- 15. State should provide fodder for cattle and livestock in drought affected regions.

- 16. State should take steps to reduce use of chemical fertilizers which affects soil, water and environmental resources. Make policy to promote organic farming which requires low capital and sustainable solution.
- 17. Budget allorganic or low input sustainable farming should be given more funds than highly intensive and expensive chemical farming.
- 18. Rearing of birds and livestock should be encouraged to boost farmer's livelihood. Free locally bred cattle should be given to farmers as it was given previously by state government. Local cattle breeds should be promoted. In all the villages, community grazing land for cattle should be made available. Cauvery delta region should be announced as Protected Agriculture Zone. State should take steps to ensure factors necessary for downstream farming such as uninterrupted irrigation, watershed management structures, environment friendly farming, right for farmers to decide farm price for themselves, fixed wages for farm laborers available at all seasons etc.
- 19. Special concessions for farmers for purchasing seeds etc and incentives for farmers who practice organic farming etc with Gram Sabhas.
- 20. Measures should be taken for availability of Cauvery water so that by June 12 2017, Metur dam's water is released. We have to ensure participation of farmers and related organizations for continuous protest. But it has to be remembered that only protests will not give final solution to issue.
- 21. If Cauvery water is not made available in TamilNadu, there are no ways to reduce farmers suicide / sudden death due to distress.
- 22. KThis fact finding committee strongly recommends termination of methane gas extraction project in delta region, which pollutes TamilNadu environment and destroys land and water resources.
- 23. Central government, as a long term strategy should take over estates like 'Green desert' in western ghats and change the region into evergreen forests to ensure adequate rainfall in India.

Γ	Name	Ag	Caste	District	Place	Cause of	Land	Land	Debt	Contact
		e				death	owned	lease		
							(Acres	(Acres		
))		
1	1. Vijayakumar	51	S.T	Thiruvarur	Venganthan kusi	Suicide	0.5	1.5	35000	978777872
									0	9
2	2. D.Ashokan	56	Ambalakkara	Thiruvarur	Pudukudi	Heart	6		44500	978738860
			r			attack			0	3
	3 V.Kannan	42	I.Nadar	Nagai	Thirupugalur	Heart		6	19500	848956694

						attack			0	1
4	Kaliyaperumal	67	Agamudai	Nagai	Orkudi	Heart		2	12000	809856254
			thevar			attack			0	9
5	Veeramani	30	Arundadiyar	Nagai	Keelvellur	Heart	1		12000	876083798
				-		attack			0	0
6	Saroja	69	Padaiyacchi	Nagai	Kadambara	Heart	2		84000	978774148
					vazhkkai	attack				0
7	Thirumavalava	48	Saiv pillai	Nagai	Polagam	Heart	11		85000	994269272
	n					attack				0
8	Vadamalai	85	Padaiyacchi	Thiruvarur	Puttakalur	Heartattac	3.5		12500	934580819
						k			0	8
9	Nataraja konar	75	Konar	Thiruvarur	ThirukaLar	Heart	2	3	16000	986578824
						attack			0	7
1	Uttirapati	75	Pallar	Thiruvarur	Pandukudi	Heart		4.5	12000	
0						attack			0	
1	Azhagesan	36	S.T	Thiruvarur	Adhicchapuram	Heart		2	50000	
1						attack				
1	A.Ramasamy	68	Thevar	Tanjavur	Avudai	Heart	5		70000	904754964
2					Nachiyarpuram	attack			0	0
1	Govindaraj	67	Moopanar	Ariyalur	Vilzhuppamkurich	Heart	1		10000	975181807
3					i	attack			0	1
1	Thangaiyyan	55	Moopanar	Ariyalur	Ottakovil	Heart	3		18000	
4						attack			0	
1	Masilamani	50	Ambalakarar	Pudhukotta	Pattukottai	Suicide		4	20000	
5				i					0	
1	Ponnuswamy	67	Pillai	Pattukottai	Alattur	Heart		3	15000	
6						attack			0	
1	Govindhan	83		Ariyalur	Vilzhuppamkurich		2,5		10000	
7					i	attack			0	
1	Kannuswamy	65	Kallar	Tanjavur	Attivetti	Heart	2		13000	
8						attack			0	
1	Murugananda	40	Pallar	Tanjavur	Alakudi	Heart		1	20000	
9	m					attack			0	
2	Ramaiaah	50		Ariyalur	Senatipathi	Heart	3		15000	
0						attack			0	
2	Aravindan	24	Kallar	Tanjavur	Gudimattur	Suicide		6.5		944376380
1									0	3

Annexure -2

<u>Medical research evidence related to Farmers death</u> Severe distress, cardiac arrest and TamilNadu farmers' sudden death

Recent sudden deaths among farmers in TamilNadu: is it mainly due to severe distress cardiac arrest?

Yes. It is.

Sudden death occurs mainly due to cardiac arrest:

Sudden death is defined as unexpected death occurring within 1 hour to otherwise normal person without external violence. Farmers death reported recently in TamilNadu are sudden deaths.

According to available scientific evidence, 88% sudden death are due to cardiac cause. 80% are due to cardiac collapse.

Could sudden cardiac death happen because of distress or sheer shock?

According to research evidence, events causing emotional distress such as natural disasters, major accidents in industries, terrorist attack, Sports competitions increases risk of hospital admission with heart attacks.

(e.g)Sudden cardiac deaths were increased dramitically post Northridge earthquake in 1994 in Los Angels region. Study published in New England journal of medicine (3) which looked at sudden heart disease death in the weeks before and after the earthquake, suggested that 41 percent of all sudden cardiac death was due to a stressful event. There were 24 observed sudden cardiac deaths on the day of the earthquake, far above the daily average of 4.6 the preceding week

Similarly during Gulf War, there was increase in heart attacks and sudden death.

What causes heart attack?

A heart attack happens if the flow of oxygen-rich blood to a section of heart muscle is suddenly blocked and the heart can't get oxygen, glucose, lactate. It is a condition in which cholesterol accumulates inside of the coronary arteries which supply oxygen-rich blood to heart as a plaque. The buildup of plaque occurs very slowly over many years. Eventually, an area of plaque can rupture (break open) inside of an artery. This causes a blood clot to form on the plaque's surface. If the clot becomes large enough, it can mostly or completely block blood flow through a coronary artery. If the blockage isn't treated quickly, the portion of heart muscle fed by the artery begins to die and causes heart attack sometimes resulting into death.

How emotional distress /sheer shock can result in heart attack?

Emotional shock or distress stimulates reflux neurons of nervous system and stimulates Adrenaline gland to secrete increased amount of noradrenaline hormone resulting in,

- increase in heart rate
- Increase in blood pressure
- Increases vaso-constriction (causes arteries to shrink in size)
- aggregates platelets for increased clotting
- aggravates arrhythmia (irregular heart beat)

These changes increase the oxygen demand and cause decreased blood flow to arteries supplying blood to heart muscle. This thickens the muscles and causes plaque to rupture causing heart attack. This fact is described in cardiology text books.

The farmers who suffered sudden death, died within few minutes after chest pain. This kind of sudden death can occur most probably due to heart attack. Some of the them collapsed to death after seeing their standing crops wither in fields.

Hence farmers died due to heart attack caused by sheer shock and despair due to crop failure owing to non availability of Cauvery.

REFERENCES:

- 1. HARRISON'S PRINCIPLES OF INTERNAL MEDICINE, 16th Edition, Volume II, Page 1618.
- 2. BRAUNWALD'S HEART DISEASE (A TEXTBOOK OF CARDIOVASCULAR MEDICINE), TENTH EDITION, VOLUME 2, Pages 1876, 77, 78.
- 3. Jonathan Leor, M.D., W. Kenneth Poole, Ph.D., and Robert A. Kloner, M.D., Ph.D. Sudden Cardiac Death Triggered by an Earthquake. N Engl J Med 1996; 334:413-419□

 $\label{eq:condition} \textbf{Dr. Bharati Selvan}, \textbf{M.D., D.M (Cardiology),}$

Cardiologist, Bharathi heart hospital, 36, Manukur road, Mannarkudi, 614001.

Mobile: 9443585675

Email Id: selvanilara57@gmail.com

Expenditure for one acre cultivation					
Expenses	Estimated expenditure				
Labour expenditure for cultivating one acre	19908				
Chemical fertilizer	7250				
Insecticide/weedicide expenses	3370				
Initial capital / construction expenses	59292				
Total expenses	89280				

Annexure 3

Selling Price for paddy crop yeild per acre

Paddy crop yield per acre is 1800 Kg	
1 Kg paddy compressing price	49.90
Selling price @120% 1 kg	59.88

R

One quintal price for paddy	5988
Price for 1800 kg paddy (1 acre crop yield)	107784

Details on expenditure for one acre cultivation for paddy $\operatorname{crop}\Box$

	Quantity required	Cost per litre/kilo	Total cost
15 days after planting-insecticide cost			
Monocrotophos ¼ litre	0.25	600	150
Carbendazim ¼ kilo	0.25	500	125
Carbohydrochloride ¼ litre	0.25	1120	125
Indofil M 45 ¼ kilo	0.H	1080	270
Weedicide 3-4 days after planting			
Revit ½ litre per acre	0.5	950	475
15-20 th day weedicide			
Nominee gold 100 ml	0.1	10000	1000
Rice star	0.5	1700	850
Total expenses for insecticide/weedicide			3370
Labor wages for cultivating one acre paddy field			
	No of laborers	Wages per	Total
		laborers	
Ploughing expense by tractor	2	1250	2500
Labor for to peel ridge grove (2 persons)	2	363	726
Labor cost for applying fertilizers	4	363	1452
extorting seedlings wages	1	2000	2000
Tea/snacks	8	13	104
Planting – 17 women laborers	17	150	2250
Tea / snacks	17	13	726
Harvesting @ 7 measures per person for 15 laborers – total 315 kg @15/kg			4725
Wages for transporting to market	2	363	726
Rent for 2 vehicles	2	250	500
Total			19908.00

Initial capital / construction expenses

35000	15%	2625
1	5000	5000
		1167
75000	0.5	37500
	1	1 5000

Miscellaneous cost			
Farming tools/instruments depreciation for	1	1000	1000
maintenance			
Petrol cost for two wheeler @ Rs.60 per day for	100	60	6000
100 days			
House maintenance/repair cost (rs.1000 per year fo	r1	5000	5000
5 years)			
Two wheeler depreciation	1	1000	1000
		Total	Rs. 59292

Current minimum support price for paddy is Rs.1450 per quintal. But farmers get only only Rs.850-900 per quintal. This is not even quarter the selling price

In a similar way for sugarcane, the selling price is Rs. 5250 per ton. But minimum support price announced is Rs. 2850. There is huge pressure from the World Bank to reduce price for farm produce and stop incentive for agricultural inputs and free electricity. Indian subcontinent serves as a low cost goods exchange for developed countries. At the same time farmers in India are losing their capital and becoming vulnerable for debts. They have to depend on government for doing agriculture; purchasing tractor, solar pumps; and drilling bore-wells and tube wells.

Government decides growth of agriculture and small businesses and small scale industries. Farmers work hard to produce crops and became slave for government decided prices. Government loan, private loan, education loan for children, tractor loan etc. hit farmers hard. This stimulates suicide in farmers.

Annexure 4

Cauvery River Water Dispute, Rights and Justice

India has agreement with Pakisthan to share Indus river water. Similarly India has agreement to share Ganga river water with Bangladesh. These agreements are based on international laws/practices. It implies when one river flows through many countries, its water is common for all those countries. This is applicable for even downstream countries.

Rivers like Mullai Periyaru, Cauvery, Palaru originate in Kerala, Karanataka and Andhrapradesh respectively and terminate in TamilNadu. But Kerala, Karnataka and Andhrapradesh governments function as if river water is solely their right.

We have to solve Cauvery issue within limits of Indian constitution. Interstate River Water Disputes Act was framed in 1956 to resolve water disputes across states. Under this act, water management board was constituted through tribunals to resolve issues on Narmada and Krishna rivers. The issue dates back to 1892, when a litigation was filed between Madras Presidency and Mysore for □ arbitration but led to a fresh set of disputes. Later, attempts were renewed to arbitrate between the two states under the supervision of Government of India and the second agreement was signed in 1924. It remains unresolved even after more than a century. But regarding Cauvery water dispute, India has delayed to setup tribunals from 1970 to 1990. However, the tribunal was not set-up until Supreme Court took cognizance of the matter and ordered the Central government to do so in 1990. Still only after 17 years, tribunal gave final award on 5.02.2007. But the final award was not notified in official gazette immediately.

Government of India notified final award of tribunal on 19.02.2013 only after continuous protests by TamilNadu government and farmers. The Central government was mandated to constitute the Cauvery Management Board (CMB) and Cauvery Water Regulatory Authority simultaneously with the gazette

notification of the final award of the Tribunal. But it failed to do so. As a result, it remained on paper and no concrete action was taken. Supreme court constituted various committees to address TamilNadu government's petitions. They could not get 190 TMC water from Cauvery required for TamilNadu. Karnataka government also boycotted the Supreme Court's orders. When the Supreme Court ordered central government to constitute Cauvery Water Management Board within 4 days, the Prime minister Narendra Modi denied that only after consent of both houses of parliament. Whatever happened regarding Cauvery water issues for nearly more than a century was legal!!!

Tamil community is denied Cauvery water for more than one century. The Prime Minister Narendra Modi has not even clearly announced when Cauvery Water Management Board will be set up. Northeast monsoon too has failed. Water not only for agriculture, but also for drinking is also becoming scarce. In many districts, farmers are dying of heart attacks. Discontent prevails among people with concern how to sustain agriculture.

By June 12, 2017, the central government should implement tribunal's award by releasing Mettur dam's water and set up Cavery Water Management Board. The Prime Minister should act immediately inc view in view of the endangered livelihood of 7.5 crore people of Tamil Nadu.

Annexure -5

Methane extraction is synonym of destruction of agriculture and farmers' community!

From southern shore of Palaru to Ramanathapuram, 500 ft to 1690 ft deep coal deposits were found. Great Eastern Energy Corporation Ltd (GEECL) won license in a biding to explore and extract methane gas and coal deposits in Mannarkudi block of Thiruvarur district in the Cauvery basin from Government of India. Petroleum extraction company ONGC also started drilling bore-wells of methane.

Methane gas is extracted from coal bed by using hydraulic fracturing. This is a dangerous process in which rock is fractured by a pressurized liquid consisting of more than 600 chemicals. Saline water is released after cracking the rocks. Saline water in the land makes it non fertile. One of the environmental effects of coal bed methane extraction is that the immense quantity of water is apumped out of the coal bed aquifers. The extracted water is typically discharged into local streams or re-injected into the ground. The removal and disposal of so much groundwater raises several concerns. The saline and sodic quality of coal bed water can have catastrophic impacts on local agriculture when discharged into local waterways. The moderate to high levels of salt in coal bed water can destroy soils and decrease crop production. The salts gather in the root base of plants, making it harder for the plants to extract water from the soil and inhibiting growth. As many farmers make use of stream and river diversion to water their crops and grazing fields, the surface discharge of coal bed water can negatively impact local agriculture. Sodic water interacts with fine soils, like clay, and resbfults in the formation of a hard crust that severely impairs water and air permeation. Sodic water can cause a sharp decrease in the growth of crops and other vegetation.

In this way, Cauvery basin is being contaminated by oil companies, making drinking water unsafe. Indian government gave permission for private companies to convert the birth land which habituate crores of people, birds, cattle, trees into graveyard.

What will happen to India's resolution to prevent global warming?

190 countries throughout the world made resolution to reduce usage of non-renewable fuels like coal, petroleum etc. which are main contributors of global warming. How can Indian government accept to extract

major land area of a state for methane and coal? What Indian government is planning to make use of imported liquid natural gas?

Methane gas extraction project, projected to have high commercial potential, is a farce!

Cauvery delta basin is one of the most fertile river basins. Its yearly income is more than Rs. 1000 crores. It is a habitat for more than 52 lakhs of population, more than 24 lakhs cattle, crores of trees and multiple organisms. With non availability of Cauvery river water, the only water source is ground water. Exploiting its extensive biodiversity for methane extraction is an uneconomical deed.

The amount of methane extracted by this process for 30-35 years can easily be done by converting cattle dung and municipal waste to generate methane. Also the byproducts fromb methane production can be used as fertilizer.

Moreover, it gives rise to suspicion that Cauvery water is not released to render the lands as uncultivable and to facilitate methane and oil producing companies, to undertake drillings for more and more methane wells.

This fact finding committee strongly opposes methane gas extraction project which pollutes the environment of TamilNadu and that destroys the land and water resources.

Team members of fact finding team on TamilNadu farmer's suicide /sudden death

Name	District	Professional Background	Mobile
Alis Bag	Nagapattinam	Organic farmer/researcher	
Chandrasekaran	Coimbatore	Social activist, PUCL	9486036196
Dr.Bharati Selvan	Mannarkudi	Cardiologist, Social activist	9443585675
Dr.Ganesan	Coimbatore	Agricultural technical expert	9092110221
Iraniyan	Nagapattinam	Environment activist	8608884534
Kalyana Sundaram	Thanjavur	Organic farmer	9952519588
Cauveri Dhanabalan	Nagapattinam	Cauvery protection committee	9443587352
Kittu	Madurai	Student movement activist	7639628704
Kumaravel	Virudhunagar	Agricultural activist	9047331240
Mohan Raj	Coimbatore	Eco and media activist	9442451783
Pamayyan	Madurai	Organic farming expert	9842048317
Panneer Selvakumar	Chennai	Media activist	9962640409
Paramasivam	Thanjavur	Farmer	9944201818
Pon Chandran	Coimbatore	Bank officer (Retd),Psychologist PUCL.	9443039630
Selvi	Chennai	Women rights activist	9080535115
Subbu mahesh	Nagapattinam	Eco activist	9486524448
Thanalakshmi	Coimbatore	Women rights activist, PUCL	8754039630
Thangapandiyan	Madurai	Social activist	7402109000
Thirunavukkarasu	Tanjavur	Engineer, organic farming researcher	9751554613
Vishnu	Nagappattinam	Environmental activist	8124312315