INECC – SCINDeA – FCFC

Seminar on "Influence of Climate Change on Ecology"

Date	**:**	**04/09/2010**
Venue	**:**	**Breeze Hotel, Chennai**
Resource person	**:**	**Mr Walter Mendoza, Dr Sudha Padmanaba, Dr Kumanan, Prof. Sundaram, Dr C. Thomson Jacob, Dr Nammalwar, Thiru A. Thandeeswaran**
Participants	**:**	**45**

Introduction

The Seminar started with registration at 9:30 am at Hotel Breeze, Chennai.

Mrs Ivy Nagarajan was invited to moderate the proceedings of the seminar. She welcomed the participants and set the tone for the Seminar. She invited Dr Sheila Benjamin, FCFC South Region Convenor to welcome the gathering and explain the day's programme.

Dr Sheila Benjamin then welcomed the participants and stated the objectives of this Seminar. She also gave a background to the regional round table programs that were held in the last 2 years and the different climate change issues that were focused upon.

In recent years she said there have been extreme weather changes all over the world which have impacted the poor and marginalized sections of society whose vulnerability has now increased. In the South East Asia region the intensity and frequency of weather related events like drought, excessive heat, cyclones, and severe floods .have increased. The global warming debates are conducted nationally and internationally to make policy to protect the vulnerable of the society. The degradation of the wetland areas and usage of pesticide in agriculture also produces excessive of methane which was also one factor for global warming and climate change. It becomes necessary that activists, government and NGOs should take up the responsibilities to protect the atmosphere.

Session 1

Dr Walter Mendoza of INECC and who is also the Director of CED in Bangalore made a presentation on" From Bali to Cancum."

He initiated the discussion on 2 degrees C and 350 ppm which are crucial to reducing global warming and the right temperature of planet earth. He also explained what the United Nations Framework Convention on Climate Change (UNFCCC) is about and that 191 countries have ratified the Convention. It is a Framework for intergovernmental efforts to gather and share information greenhouse gas emissions, national policies and best practices, launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, cooperate in preparing for adaptation to the impacts of climate change including the provision of financial and technological support to developing countries.

Coming to the Kyoto Protocol he said is a legally binding agreement under which industrialized countries will have reduce their collective emissions of greenhouse gases by 5.2% compared to the year 1990 that has been calculated as an average over the five-year commitment period of 2008-12. Over 80% of CO2 emissions in the atmosphere for the last 150 years have come from richer countries.

He then highlighted that human beings are part of the problem due to

- urbanization
- high transaction costs
- excessive mobility
- high consumption
- conduits of the top-down approach

H also said that at the same time we can be part of the solution as well by

- dealing with our own carbon footprint
- respect for the dignity of local capabilities
- be the intersection facilitating the cross flow of information, knowledge and other resources
- urban resource: decentralized, democratized
- let us be part of the Solution with conviction, commitment and compassion

At the end of Mr Walter Mendosa's presentation several concerns were raised and discussed in detail.

Session 2

In the second session Dr Sudha Padmanaba senior CDM specialist presented her paper on "Agriculture and Low Carbon path in the context of Climate Change" will provide a framework of agriculture practices that leads to low carbon path.

Climate change she said is accepted by the scientific community as a real and present threat to our livelihood. A large scale reduction in greenhouse gas emissions will be required across its many sources in our diverse economy. This can largely be done by increasing the amount of CO2 removed from the atmosphere and sequestered in terrestrial ecosystems. Therein lies the opportunity for the owners and managers of farmlands and forests to participate in the solution. Farmers can remove CO2 from the atmosphere and sequester it as soil carbon and biomass by changing agricultural practices to reduce greenhouse gases. And if farmers can be compensated for their actions to reduce emissions or sequester GHG, they can benefit economically from these efforts. Bringing farmers and foresters to the table shows great promise for mitigating climate change. It is a promising project for the small and larger farmers but proper methodologies are yet to be developed to calculate the amount of carbon dioxide emissions.

She then defined CDM as a flexible mechanism under the Kyoto Protocol and its usage in agriculture and its related field. There are about 1000 CDM projects in India and about 3000 projects around the globe she said. Dr. Sudha briefly described the CDM process.

Through the Fair Climate Network Dr. Sudha said a coalition of 5 NGOs from Tamilnadu, Karnataka and Andhra Pradesh are involved in a low carbon farming project.

Session 3

Dr J Logamanya Tilak, Lecturer, Department of Zoology, Madras Christian College, Tambaram made a presentation on "Wet Lands & Climate Change"

He defined wetlands as shallow ecosystems in which the land surface is saturated or submerged at least part of the year. Wetlands are further classified into three main categories such as,

- Inland Wetlands
- Coastal Wetlands
- Man-made wetlands

Based on the vegetation wetlands are also called Swamps, Marshes or Marshaldns, Bogs and Fens. They are temporary or permanent habitats to a wealth of species of plants, fish and wildlife and also acts as a natural water purifier system. At present, many wetland species have become threatened and endangered because of their dependence on a particular type of wetland ecosystem, which has become seriously degraded or destroyed.

Presently, in India wetlands are considered as dumping zones in rural and urban centers. The wetland plays a role in climate change and the restoration of wetlands following the destruction through climate change is going to be costly.

There were several concerns raised on how to sensitize the urban and rural communities on the need to protect wetlands. It has been suggested that college & school students could be used be highlight the value of wetlands.

Session 4

The afternoon session was led by Dr Kumanan Head of the Department of Bio-technology, Tamil Nadu Veterinary and Animal Sciences Universityon "Animal Husbandry & Emissions – how it contributes to greenhouse gases, Mitigation factors"

The concern over environmental effects of livestock production in India he, said is of relatively recent origin. On one hand there is a concern that changing climatic conditions will severely affect the livelihoods which are based on natural resources like agriculture and animal husbandry. Promotion of sustainable agriculture and livestock rearing will be vital to ensure that the impact of climate change is minimized in on the communities. This will involve rearing of animals which are more sturdy, heat tolerant, disease resistant and relatively adaptable to the adverse conditions. In such a situation he said some of the indigenous breeds will be able to cope much better than the cross breeds. Thus Dr. Kumanan brought out very clearly the role of animal husbandry in

contributing to global warming and climate change Cattle he said are the largest producers of methane which is a greenhouse gas and contribute to global warming.

On the other hand, livestock is being seen as one of the culprits of environmental degradation. Large ruminants are being accused of releasing large quantities of methane emissions. Dr. Kumanan said that environmentalists are of the opinion that goats have a aggressive grazing habit which causes severe damage to vegetation and accelerate desertification. But small ruminants can improve soil and vegetation cover as well as help in dispersing seeds through their hooves and manure. Although blamed for negatively impacting environment, livestock will continue to remain as a livelihood option for the majority of the poor on India. The solution he said lies in promoting adequate measures to ensure sustainable development without causing damage to the environment.

Session 5

Session 5 was a panel discussion on "Need for integrated State Policies in relation to Adaptation and Mitigation Measurers in Coastal and Wetland areas"

Prof. D Sundaram Member of Tamil Nadu Backward Classes commission, was the Chairperson of this session. The co-panelists were

He explained that there about 40 percent of the world's population lives within 100km of the coast -- about 2.2 billion. Coastal zones also support a range of livelihoods and economic sectors including fisheries and marine activities.

Climate change will have a diverse set of impacts on coastal zones due to warming temperatures, changing precipitation, and sea-level rise. He brought out clearly that how coastal zone impacted,

- Increased levels of inundation and storm flooding, which could threaten agriculture
- Coastal infrastructure and Accelerated erosion of beaches, cliffs and wetlands.
- Sea-level rise leading to seawater intrusion into fresh groundwater.
- encroachment of tidal waters into estuaries and river systems impacting fragile,
- Coastal ecosystems and human livelihoods.

He identified that social responsibility in three dimensions:

- Mitigation
- Sovereignty.
- Fairness in the Face of Unfairness:

There is a need for collective climate change action groups- namely Local Community, Governance and NGOs. These have a scope for generating literature pertaining to the vulnerability and adaptation of fisheries, livelihoods and regional economies. Current literature

from coastal zone management can provide information about vulnerabilities to *current* climatic conditions -- a prerequisite policy into future climate changes.

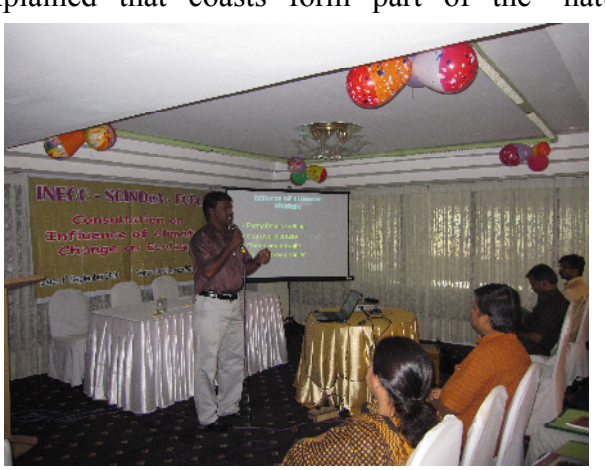
Dr Nammalvar brought out "how climate change impacts on coastal marine ecosystems and their fishery resources and human population along the Tamil Nadu coast, India." The climate change has a direct impact on the performance of the global player "Ocean" as well as on the risks in coastal zones, ecosystems, living coastal marine fishery resources and human population.

Extreme events like heat waves, wind storms, and floods raise the mortality rates, while living conditions for disease agents may improve, allowing diseases to spread with regions that were not affected before. The impacts in tier turn affect human development on human communities and natural coastal marine ecosystems for instance changes in land use patterns that lead to deforestation and loose of biodiversity. These changes affect species distributions ocean productivity and timing of seasonal biological events.

It has been discussed in detail that how climate change made an impact on coastal marine ecosystems and their fishery resources and human population and what are the steps to be taken to protect coastal marine ecosystem.

Mr A.Thandeeswaran, (Sociologist, Irrigation Management Training Institute, Thiruchiraappalli) discussed on "Climate change and Water Issues Affecting Coastal Areas".

In his presentation Mr Thandeeswaran explained that coasts form part of the 'natural infrastructure' for human adaptation along with river basins and floodplains. Climate and water sustainability are twin parameters for assessing our adaptation strategies. The disintegrated development interventions have caused irreparable damage to the ecosystem in general and to the natural infrastructure for adaptation in specific. What is lacking is collective will owing to social disintegration which reflects in the disintegrated development actions by lesser collectivities opposed to each other with more or less power.



Climate change will impact water resources. It is also clear that, in many parts of the world, variability in climate conditions, next to many socio-economic and environmental developments, is already having major impacts and that such variability is increasing. Both present variability and long-term climate change impacts are most severe in the developing world, and particularly affect the poor in these regions. The shift is from a state of relative deprivation towards absolute deprivation.

The water issues affecting coastal areas are: (1) tail end institutional supply—water scarcity; alternating with the opposite (2) frequent cyclonic storm water inundation (water flooding and salination); (3) poor irrigation and drainage mechanisms; (4) aquafarming replacing mangrove forests; (5) weed infestation; (6) declining quality of ground water; (7) disasters like tsunami; (8) rising sea level compounding these impacts etc. The unexpected ecological changes associated with climate change disrupting livelihoods in coastal areas are manifold and vulnerability to such stress is often compounded by social, economic and institutional factors. Coping mechanisms are determined by socio-economic conditions of the people as individuals and collectivities and by institutional support mechanisms.

The sustainable solution, he added if attainable, would be possible only through the participatory model. The practiced models of people participation are still far away from the ideal and therefore are only capable of producing relative sustainability. Often, the ideal is compromised for the real. For instance, the elimination of 'historical accountability' clause indicates that present mistakes could be rationalized in the near future as the past ones have been self-pardoned by the developed. And that is reality he said.

At the end, participants raised several concerns regarding how this can be addressed to society and the role of the NGOs and government. It has been suggested that NGOs should take a lead to address this issues and make use of the government resources to bring awareness to protect the earth.

This consultation was closed with vote of thanks by Mr Johnson, Programme Coordinator SCINDeA.

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Consultation on Influence of Climate Change on Ecology

Date: 4th September 2010 **Venue : Hotel Breeze, Chennai**

Programme Schedule

09:30 AM – 10:00 AM	Registration of participants
10:00 AM – 10:15 AM	Welcome and Introduction to the Consultation - **Dr Sheila Benjamin** **Executive Director, SCINDeA**
10:15 AM – 11:10 AM	**Session 1** Govt. of India Climate Policy and State Policies What happened in Copenhagen & what to expect in COP 16 in Mexico - **Mr Walter Mendoza, INECC**
11:00 AM – 11:15 AM	Coffee Break
11:15 AM – 12:00 PM	**Session 2** Agriculture and Low Carbon Path. - **Dr Sudha Padmanaba, Senior CDM Specialist**
12:00 PM – 12:45 PM	**Session 3** Importance of Wetlands and threats to wetland Ecology. - **Dr Tilak, Dept. of Zoology, Madras Christian College**
01:00 PM – 02:00 PM	Lunch & Documentary Film
02:00 PM – 02:45 PM	**Session 4** Animal Husbandry & Emissions - how it contributes to greenhouse gases, Mitigation factors - **Dr. Kumanan, Head of the Department of Bio- technology , Tamil Nadu Veterinary and Animal Sciences University**
02:45 PM – 04:15 PM	**Session 5** Panel discussion on need for Integrated State Policies in relation to Adaptation and Mitigation Measures in Coastal and Wetland Areas. - **Dr Nammalwar, Gaia International Organisation, Chennai** - **Prof D.Sundaram, Member of Tamil Nadu Backward classes commission, Member Research Advisory Committee, World Bank Water Resources Research Fund, Govt of Tamil Nadu.** - **Dr C. Thomson Jacob, Expert Consultant, National Bio Diversity Authority** - **Thiru A. Thandeeswaran, Sociologist, Irrigation Management Training**
4.15 PM	Vote of thanks Tea & departure

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Registration Form

Sl. No.	Name	Organisation	Designation	Signature
1.	NELSON JOSEPH.G	GKM College of Engg	Lecturer	G.N.Nelson Joseph
2.	GEORGE PANDIAN.J	Deenabandhu High School	Rtd. Teacher	J. George Pandian
3.	P.BHUPATHI	CROSS	Director	P.Bhupathi
4.	S. ANDREW KANNAPPAN	NEEDS	Director	
5.	R. Jayaprakash	SCINDeA SHICDP.	Project Manager	R. Jayaprakash
6.	PROF. V. NAGARAJAN	EXNORA Research	DIRECTOR	
7.	U. Nathesh Babu	CRANES	System Analyst	U. Nathesh Babu
8.	Sudha Padmanabha	FCN	Senior CDM specialist	Sudha
9.	Chethan T-R	FCN	Junior CDM Specialist	T.R.Chethan
10.	PREMCHANDRAN	CRENIEO	Programme	
11.	S. Ramsingh	CASA	Co-ordinator - DRR	
12.	P. Joseph Victor Raj	HOPE - INSAF	Director	P.J.V.R.

Sl. No.	Name	Organisation	Designation	Signature
13.	Mr. S. Meerasa	IPDP	P. O.	S. Meerasa
14.	Mr. S. Rajasekaran	Publications/ Forms	PRO	S. Rajasekaran
15.	Mr. Reuben James	CASA	Asst. Coordinator	Reuben
16.	Walter Mendez	INTACC		
17.	M. Ravi.	VELCI-SWAS	Programme manager.	M. Ravi.
18.	J. Nagarajan	CRENIED	Librarian	J. Nagarajan
19.	Johnson Mavelikkara	SCINDEA	P.C	Johnson
20.	R. Ravendiran	SCINDEA	programme coordinator	R. Ravendiran
21.	Mrs. Sheila Jones	CASA	OSD	Sheila Jones
22.	Dr. V. Vijay Devarasan	MCC	Asst. Professor	V. Vijay Devarasan
23.	Mrs. Irene William	Tweed	Director	Irene William
24.	Dr. N. Arumugam	MCC	Asst. Prof	Arumugam
25.	Dr. William Gnana-Sekaran	MCC	Prof & Head	William Gnana-Sekaran
26.	Mrs Premavathi Rao	CRENIED	Director (Prog & Admn)	Premavathi Rao
27.	Mr. Barthowmeo	GURUKUL	Student	Barthowmeo

Sl. No.	Name	Organisation	Designation	Signature
28.	Thomson	NBA	Exp. Consultant	[signature]
29.	K. SAMUEL	GIO	Consultant	[signature]
30.	DR. P. NAMMALWAR	GIO (NGO)	Chairman	[signature]
31.	T.D. BABU	GIO	Prog. Officer	[signature]
32.	Dr. Tilak	MCC	Asst. Prof	[signature]
33.	Mrs. Anita Tilak	SRM	Asst. Prof	[signature]
34.	A. Thandeeswaran	IMTI	Research Associate	[signature]
35.	V.V. Prakash	R.V. Society	Director	[signature]
36.	A.K. Mani	Ambalayam	Managing Trustee	[signature]
37.	Dr. G. JAGARAJ	Cvenizz	Consultant	[signature]
38.	Ebenezer Paul. V.	Seminar	Participant	[signature]
39.	D. Punitha			D. Punitha
40.	S. ASHOK KUMAR	Trust HELP	Co-ordinator	[signature]

41. P. MUTHU — Trust HELP — Managing Trustee — P. Muthu

42. Dr. K. Kumaran — MV College — Prof and Head — [signature]

43. D. Sundar — [illegible] — School of [illegible] — [signature]

44. Punerty Thandees — [signature]

45. Charlie Benjamin — [illegible]