

Detailed Report of the National Level Science Seminar
Environmental Issues: Current Scenario from the View Point of Scientific Studies
by
Science Seminar Organizing Committee, 2018-19

INTRODUCTION:

The most unique feature of Earth is the existence of life, and the most extraordinary feature of life is its diversity. For the existence of life on earth the most important is to have a clean and healthy environment. Biodiversity is important for maintaining balance of the ecosystem in the form of combating pollution, restoring nutrients, protecting water sources and stabilizing climate or we can simply say that it is crucial for the well being of life on earth. Biologists now suggest that we are now approaching to the sixth mass extinction, given the rate of *biodiversity loss* mostly as a consequence of anthropogenic impacts.

Article 48A of the Indian Constitution unequivocally declares that “the State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country”. Further, Article 51A states that it is a fundamental duty of every citizen of India “to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures”. According to these constitutional provisions, the Environment Protection Act of 1986 authorizes the Government of India to protect and improve the environment, control and reduce pollution from all sources, and regulate the establishment and operation of industries on the basis of environmental hazards. India is one among many nations that have continuously sought to protect their environment through the enactment of legislation and regulations. Yet environmental degradation through indiscriminate exploitation of natural resources due to anthropogenic development activities has brought life on earth almost on the brink of extinction.

Conventional notion of development is synonymous with the modernization of agrarian activities, rapid industrial expansion, increased investment in transport and communication, energy and other infrastructure. All these, while promoting economic growth have also engendered environmental pollution depending upon the technological choices and resource management options taken by the national policymakers and individual decision units. Large scale industrialization and rapid population growth is threatening the earth’s green wealth due to the emission of both local and global pollutants like green house gases, sulfur dioxide, lead, non-biodegradable polymeric materials, synthetic chemicals, heavy metals, oil spills, etc. Emission of hazardous gases, aerosols, chlorofluorocarbons and particulate matters from vehicles, household appliances, power plants, etc. are polluting the earth’s atmosphere resulting in ozone depletion, increased ultraviolet radiation and global warming. The impacts of this pollution on social, economic and environmental framework of nations have been severe. Therefore, immediate mitigation and adaptation strategies are called for to at least curb, if not reverse, this trend of environmental degradation.

A holistic development strategy involves the simultaneous upscaling of all other economic sectors beside industry. Unsustainable development trends have increased threat of natural hazards like floods, droughts, and cyclones while simultaneously endangering nature dependent livelihood options, threatening global food security, destroying ecosystems, increasing the risk of fatal diseases like cancer, malaria, etc. and propagating poverty. Recognizing the criticality of the scenario, the first Earth Summit at Rio de Janeiro in 1992 adopted the blueprint for wide ranging actions promoting environmentally sustainable development. The summit set the tone for several subsequent national and international conventions and seminars which analyze, debate and draft strategies to curb environmental degradation.

OBJECTIVES

Environmental degradation is caused in a variety of ways, predominantly by human activities, however natural events can also result in the deterioration of environment. We live in a world where the natural resources are limited. Our daily lives are linked with our surroundings and inevitably affects them. Our dependence on 'Mother Nature' is so great that we cannot continue to live without protecting the Earth's environmental resources. Today we are more crowded, more consuming and more connected. Growing population, higher standard of living and misuse of resources put increasing pressure on our environment. Our uncontrollable greed is continuously creating unexpected consequences that are hard to reverse.

The impact of environmental pollution and loss of biodiversity can be far reaching and severe. It is important to recognize and assimilate the sources and impacts of pollution, and understand the alternatives available to reduce human and ecological vulnerability to the same. Knowledge dissemination has been identified as an important initial strategy to make people conscious of the significance of any critical scenario. In this context, the Faculty of Sciences, A. B. N. Seal College, Cooch Behar, West Bengal will be organizing a National Level Seminar to throw focus on all aspects related to environmental degradation, biodiversity loss and climate change. The objective of this seminar is to aware participants about the causes and effects of environmental degradation. Through expert discourses, paper presentations and interactive sessions, the seminar aims to acquaint the participants about the mechanisms to check various forms of environmental pollution and biodiversity destruction. It is our intent to build at least some level of consciousness among the target audience of students and faculty on such an important burning issue as environmental protection. The major and minor themes are as follows:

Major theme: 1. Biodiversity management

- Minor theme: 1. Biodiversity management vis-à-vis industrialization
2. The role of traditional knowledge on Biodiversity utilization.
 3. Biodiversity and agriculture

Major theme: 2. Pollution: its status and management

- Minor theme: 1. Trends in development of eco-friendly technologies

2. Environmental status in relation to agro based industries
3. Eco-tourism and environmental ethics
4. Integrated pollution management

Major theme: 3. Climate change and global warming

Minor theme: 1. Climatic alteration in relation to the environmental components

2. Global warming and its effects in recent days.

Major theme: 4. Socio-political scenario regarding the environmental issues

Minor theme: 1. Environmental Movements

2. Environmental laws and logistics

Programme Description:

On 19th February, at around 09.45 a.m. our respected Officer-in-Charge, A.B. N. Seal College, Conveners and members of the National Level Science Seminar Organizing Committee in presence of our 'Chief Guest' Professor (Dr.) M. K. Durga Prasad, Former Vice-Chancellor, Krishna University, Machilipatnam, Andhra Pradesh along with other distinguished Speakers had inaugurate the Seminar by lighting of the holy 'Diya' at 'Vidyasagar Sabhagriha' of 'Satabhisha' building, A. B. N. Seal College, Cooch Behar.

The Conveners of this National Level Science Seminar delivered Welcome Address. Dr. Jibanananda Jana, Advisor of this Seminar, Prof. M. K. Durga Prasad, Hon'ble Chief Guest, and Dr. Bimal Kumar Saha, respected Officer-in-Charge of A. B. N. Seal College addressed the audience and scientific community. An excellent 'Keynote Address' on *Lake Kolleru* was delivered by Professor (Dr.) M. K. Durga Prasad, Former Vice-Chancellor, Krishna University, Machilipatnam, Andhra Pradesh. The session was chaired by Prof. Debabrata Lahiri, Director, IQAC, A.B.N. Seal College.

Plenary Lectures I & II were delivered by Prof. (Dr.) Tarit Roy Choudhury, Dept. of Environmental Science, Jadavpur University, W.B. and Dr. Kaushik K. Pradhan, Dept. of Agriculture, Uttar Banga Krishi Viswabidyalaya, W.B. respectively on 19th February, 2019. Prof. Roy Choudhury talked on *Ground Water Arsenic Contamination in West Bengal & Its Various Mitigation Strategies*. The Sessions were chaired by Dr. Prabir Banerjee, Associate Professor & Head, Dept. of Physics and Dr. Jibanananda Jana, Associate Professor, Dept. of Chemistry.

On the following day, i.e. on the 20th February, Dr. Amit Kumar Ghosh, Scientist – F, Birbal Sahni Institute of Paleosciences, Lucknow, U.P. delivered the first Talk (i.e. Plenary Lecture III) on *Climatic Variability and Monsoonal Intensity of the Past with Special Emphasis on Andaman & Nicobar Islands* chaired by Prof. M. K. Durga Prasad. And finally, Plenary Lecture IV was delivered by Prof. Apurba Ratan Ghosh, Dept. of Environmental science, The University of Burdwan, W.B. Prof. Ghosh explained in detail the *Various Mitigation Strategies of Carbon Removal*. Dr. Samir Kumar Samanta, Associate Professor & Head, Dept. of Geography acted as the Chair-Person of this Lecture.

Following the Plenary Lectures, there were also Technical Sessions comprising of parallel ‘Oral Presentations’ & ‘Poster Presentations’ on both days. The participants from various Colleges & Universities presented their research works in the ‘Oral Presentation Session’ in front of the scientific community. There were a total of 46 Abstracts that have come up in the Abstract Volume. The students of our College also showed a keen interest and enthusiasm through Poster Presentations. The posters were judged by a panel of 5 judges and prizes for the 1st, 2nd and 3rd positions were given.

In the ‘Valedictory Session’, the ‘Certificates of Appreciation’ were handed over to all the participants. Our Officer-in-Charge delivered a wonderful speech summarizing the overall aspect of this National Level Seminar and its importance. Prof. M.K. Durga Prasad and other dignitaries also shared their wonderful experiences of these 2 days with us. And finally, the Conveners of this National Level Seminar delivered ‘votes of Thanks’ followed by the announcement of official closing of the Seminar.

Details of resource persons and invited speakers with their addresses, and proposed contribution:

Sl No	Name and designation & educational qualification	Address	Role in the programme	Proposed title of presentation
1	M. K. Durga Prasad Former Vice Chancellor & Professor in Aquatic Biology	Krishna University Machlipatnam, Andhra Pradesh	Key note address	Wet lands of India: Emphasis on the Bio - Diversity studies and Environmental settings in Lake Kolleru, Andhra Pradesh, the biggest fresh water wet land ecosystem in India.
2	Prof. Apurba Ratan Ghosh, Professor	Department of Environmental Science, Burdwan University	Plenary Lecture	Analysis of physic – chemical characteristics and metals in water sources of chromite mining in Sukinda Valley, Odisha, India

3	Dr. Amit Kumar Ghosh, Scientist-F	Birbal Sahni Institute of Palaeosciences, Lucknow	Plenary Lecture	Climatic variability and monsoonal intensity of the past: evidence from 20 to 3 million years old sediments of Andaman and Nicobar Islands
4	Dr. Tarit Roy Choudhury, Professor	Department of Environmental Science, Jadavpur University	Plenary Lecture	Groundwater arsenic contamination in West Bengal, India: Special reference to status, distribution, food chain contamination, health effects and mitigation strategies
5	Dr. Kaushik K. Pradhan	Department of Agriculture, Uttar Banga Krishi Viswabidyalaya	Plenary Lecture	Intuitive and pluralistic exploration of the traditional knowledge base for biodiversity conservation and sustainable development

List of papers presented by participants in technical sessions:

Sl no.	Title	Author(s)	Presenter
1	WOMEN,NATURE & ECOPELAGOGY: Learnings from recent environmental movement in Balarampurvillage,Dhenkanal,Odisha	MAYURAKSHI BASU	MAYURAKSHI BASU
2	LEAD EXPOSURE AND HUMAN HAIR ANALYSIS: A REVIEW	Shreyasi Roy	Shreyasi Roy
3	The study of the correlation between physico-chemical parameters and ichthyofaunal variety at raidak river flowing through the Coochbehar district of West Bengal, India	Abhisek Saha ^{1*} , Gobinda Chandra De ² and Debashis Das ³	AbhisekSaha
4	Global warming: Natural or Anthropogenic?	Arindam Chakraborty*, RikeeDey, StutiSaxena, SubhankarPramanik, Lopamudra Roy & Amit K Ghosh	Arindam Chakraborty
5	Singlet Fission: H2 dimer model system	BasirAhamed Khan	BasirAhamed Khan
6	Biofunctionalizednanosorbent for treatment of azo dye containing effluents	Priya Banerjee *, AniruddhaMukhopadhyay and Papita Das	Priya Banerjee
7	Environmental impacts of eco-tourism in dooars Region a study of Alipurduar district, West Bengal.	Shubhabrata Roy	Shubhabrata Roy
8	Ecotourism in practices: Some reflections through SHGs in forest	Prof.MonotoshPramanik	MonotoshPra manik

	covered Jalpaiguri		
9	Industrial Pollution: Endangered Environment A Study in Asansol Durgapur Industrial Complex	Rajeshree Dutta	Rajeshree Dutta
10	Adventure Tourism in Sikkim-Darjeeling Himalaya and its adverse effects on Mountain Environment	Suchitra Ray	Suchitra Ray
11	CO-HABITING WITH RIVERS: THE LIVING CONDITIONS IN SOME 'CHARS' OF THE RIVERS OF KOCH BIHAR	Writuparna Chakraborty	Writuparna Chakraborty,
12	A revisit to the Forest Policy of the Maharajas of Cooch Behar Princely State within the realm of the Environmental Historiography	Prajnaparamita Sarkar	Prajnaparamita Sarkar
13	A Study of Impact of Agricultural Practices on the Biodiversity in the Crop Fields of Nadia District of West Bengal	Hemen Biswas, PrakritiRanjan Sarkar ² , Md. Wasim Akram ³	Hemen Biswas,
14	A Survey of Traditional Knowledge and Practices of Biodiversity as Medicine in the Home Gardens of Rural Murshidabad, West Bengal	Md. WasimAkram, Anikul Islam ² , PrakritiRanjan Sarkar ³ , Hemen Biswas ⁴	Md. WasimAkram
15	A Study of Fishermen's Perception of Biodiversity and Conservation in the District of South 24 Parganas, West Bengal	PrakritiRanjan Sarkar, Hemen Biswas ² , Md. Wasim Akram ³	PrakritiRanjan Sarkar
16	COSMOLOGICAL MODEL OF THE UNIVERSE AND EMERGENT UNIVERSE WITH BULK VISCOSITY IN f(R,G) GRAVITY	ParthaSarathiDebnath	ParthaSarathi Debnath
17	Climate Change, Natural Hazards and Disaster Management- The Challenges ahead	Srijit Das	Srijit Das
18	Variation of Irrigated Water Quality and Boro Cultivation of Koch Bihar District – A Geographical Appraisal, West Bengal	Dr.Bappa Sarkar , Dr.Nazrul Islam	Dr.Bappa Sarkar
19	The Ethical Aspect of Environmental Degradation- Linking the Issue with Children's Rights	Shampa Dutta,	Shampa Dutta
20	IMPACT OF U-V IRRADIATION ON ELECTROLYTES CONCENTRATION OF VITREOUS HUMOUR OF DEVELOPING CHICK EMBRYOS	Asis KumarPandit	Asis Kumar Pandit
21	Celebration of E-Day: An Initiative towards E-waste Management	Prabir Banerjee	Prabir Banerjee

22	Spatial and sub seasonal patterns of the long-term trends of rainfall over India.	PiuSaha 9932341616	PiuSaha
23	MEDICINAL PLANTS AND THEIR CONSERVATION FOR SUSTAINABLE USE	Tridib Chakraborty	Tridib Chakraborty
24	IMPACT OF THE FORESTRY PRACTICES OVER THE BIODIVERSITY AND INDIGENOUS COMMUNITY'S LIVELIHOOD PATTERNS OF NORTH BENGAL FORESTS	Sulagna Chandra	Sulagna Chandra
25	Environmental-friendly biosynthesized magnetic nanoparticles using Aloe vera extract	Biplab Kumar Mandal ^{1*} , Abhijit Biswas ² and Rahul Das ³	Biplab Kumar Mandal
26	Renewable Energy Sources and Sustainability Issues	Chayan Saha	Chayan Saha
27	Scope of renewable energy for the prevention of environmental pollution and climate change	Suchismita Maiti	Suchismita Maiti
28	IDD AND ITS PREVALENCE AMONG THE PREGNANT WOMEN OF MURSHIDABAD DISTRICT IN WEST BENGAL	SmritiratanTripathy and DakshayaniMahapatra	
29	PERFORMANCE, ENVIRONMENTAL POLLUTION AND POLLUTION CONTROL SCHEMES FOR THE AGRO BASED INDUSTRIES IN INDIA: A CRITICAL REVIEW	ParthaSarathiAich,	ParthaSarathi Aich,
30	Phylogenetic Signal of Threatening Processes among Tree frogs: the Need for clade level Conservation Planning	Debojyoti Dutta	Debojyoti Dutta
31	Antiproliferative and cytotoxic effects of leaf extracts of Clerodendrumviscosum Vent.	Gobinda C. Roy ^{1'3} , L. M. Kundu ¹ , S. Roy ¹ , R. Prasad ² , B. Koch ² , Sanjib Ray ¹	Gobinda C. Roy

Account balance of National seminar on environmental Issues: Current Scenario from the view point of Scientific Studies on 19th and 20th February 2019.				
Income(in Rupees)	Rs.	Expenditure(in Rupees)	Rs.	Voucher No
Registration Fees collected	92200	Travel (Flight & railway)	46443	Sl. No. 1-14
College Fund receive	186000	Printing	14335	Sl. No. 1-15
Refund from A R Ghosh	3879	Kit & Memento committee	30144	Sl. No. 1-11
Ticket cancellation fee receive Of Dr. D P Duari	715	Invitation committee	500	Sl. No. 1
		Local transport committee	15253	Sl. No. 1-10
Total fund Receive	282794	Honorium to speakers	5000	Sl. No. 1-2
		Contingencies including special need	1290	Sl. No. 1-3
		Local hospitality(Hotel + Food)	21490	Sl. No. 1-38
		Stage & Decoration	5850	Sl. No. 1-12
		Refreshment	71058	Sl. No. 1-4
		Total Expenditure	211363	

Balance -

71431/-

(Only Seventy One
Thousands Four Hundreds
Thirty One)

[This amount was handed over to
the institute for future research &
Seminar Work]

Outcome:

Total 124 no of students and 55 faculty members from both host institution and other institution was benefited by this seminar in the following way.

- The seminar become a well utilized platform for the student, teachers and other participants to share their views on environment in presence of eminent scientists and researchers.
- The future projects of the audience will pave the way to fundamental research on environmental studies.
- The budding scientists were able to showcase their research outcomes and were fortunate to discuss the concerned topics with the legends on the specific fields.

- Both the under graduate and post graduate students, research fellows, the faculty members and other interested peoples were enriched by the visionary lectures delivered by the pioneer of the fields.
- The enriched talk and discussions on environmental studies stimulate the audience toward the green environment.
- The proceeding of the seminar reflects its holistic approach towards the nature and be helpful for future endeavour.
- The seminar light on new socio political movements which may lead to new environmental policies.
- This seminar might awake the society to step forward for green planet movement.

Photographic Glimpses of the Seminar:



Registration going on



Inaugural session



Welcome address by Convener



Address by president of two-day seminar committee



Address by advisor of the two day seminar committee & Governing body member of Acharya Brojendra Nath Seal College.



Key note address by M.K.DURGAPRASAD, Former, Vice –Chancellor, Krishna University, Machlipatnam, Andhrapradesh



Technical Session : Lecture delivered by DR. AMIT KUMAR GHOSH, Scientist-F, BirbalSahni Institute of Palaeosciences, Lucknow, U.P.



Technical Session : DR. TARIT ROY CHOUDHURY, Professor, Department of Environmental Science, Jadavpur University, West Bengal.



Falication of PROF. APURBA RATAN GHOSH,Professor, Department of Environmental Science, Burdwan University, West Bengal



Falication of DR. KAUSHIK K. PRADHAN,Department of Agriculture, Uttar BangaKrishiViswabidyalaya, West Bengal.



Poster session presented by students of Acharya Brojendra Nath Seal College



Audiences enriching themselves



Valedictory address by Convener of Two-day National Seminar Committee



Memento to encourage poster presentation