World Earth Day

"Sustainable System to Combat Global Warming and Climate Change"

22nd April 2:00-5:00pm

The webinar was organized on "World Earth Day" on the theme on **"Sustainable System to Combat Global Warming and Climate Change"**. The webinar began at 2:00 PM, with the welcoming of the Dignitaries and guests by M. Ceremony Ms. Charu Singh, Ph.D Scholars, Amity Institute of toxicology safety and management, Amity University, Sector-125, Noida

Time	Event
April 22, 2022	**Time : 2:00 p.m. - 04:50 p.m.**
02:00 -02:10 p.m.	**Welcome of delegates**
02:10 -02:20 p.m.	**Introduction to the theme of Webinar- "World Earth Day"**
02:20- 02:30 p.m.	Amity Environmental Initiatives by **Prof. Tanu Jindal,** Group Additional Pro Vice Chancellor (R&D), Director, Amity Institute of Environmental Toxicology, Safety and Management, Amity Centre Of Antarctic Research and Studies, Amity University Uttar Pradesh
02:30 -02:40 p.m.	**Dr. D.K. Bandyopadhyay,** Chief Advisor FPO and Chairman, Amity Law Schools
02:40 - 03:00 p.m	Special address by **Dr. D. R. Pattanaik,** Scientist –F, Head, (Numerical Weather Prediction) Division, Nodal Scientist for Extended Range Forecast, India Meteorological Depart, Secretary – Indian Meteorological IMD
03:00 - 03:20 p.m.	Special address by **Dr. Rita Dhodapkar,** Principal Technical Officer and Science Secretary CSIR-NEERI, Nagpur AcSIR, Faculty
03:20 -03:40 p.m.	Special address by **Dr. S.D. Attri,** Additional Director General of Meteorology, India Meteorological Department Ministry of Earth Sciences **"Climate Change and Management Strategies"**
03:40: -04:00 p.m.	Special address by **Professor R. Baskar,** Professor in Geology, School of Sciences, Indira Gandhi National Open University
04:00 -04:20 p.m.	Special address by **Prof. Smita Chaudhry,** Dean, Life Sciences, Professor & Director Institute of Environmental Studies, Kurukshetra University, Haryana
04:20 – 04:40 p.m.	Special address by **Prof. Rajesh Dhankhar,** Professor, Department of Environmental Science, M. D. University, Rohtak
04:40 -04:50 p.m.	**Panel Discussion with Eminent Speakers (Please invite Dr. Ajit Nagpal also before questions)**
04:50 pm	**Vote of Thanks**

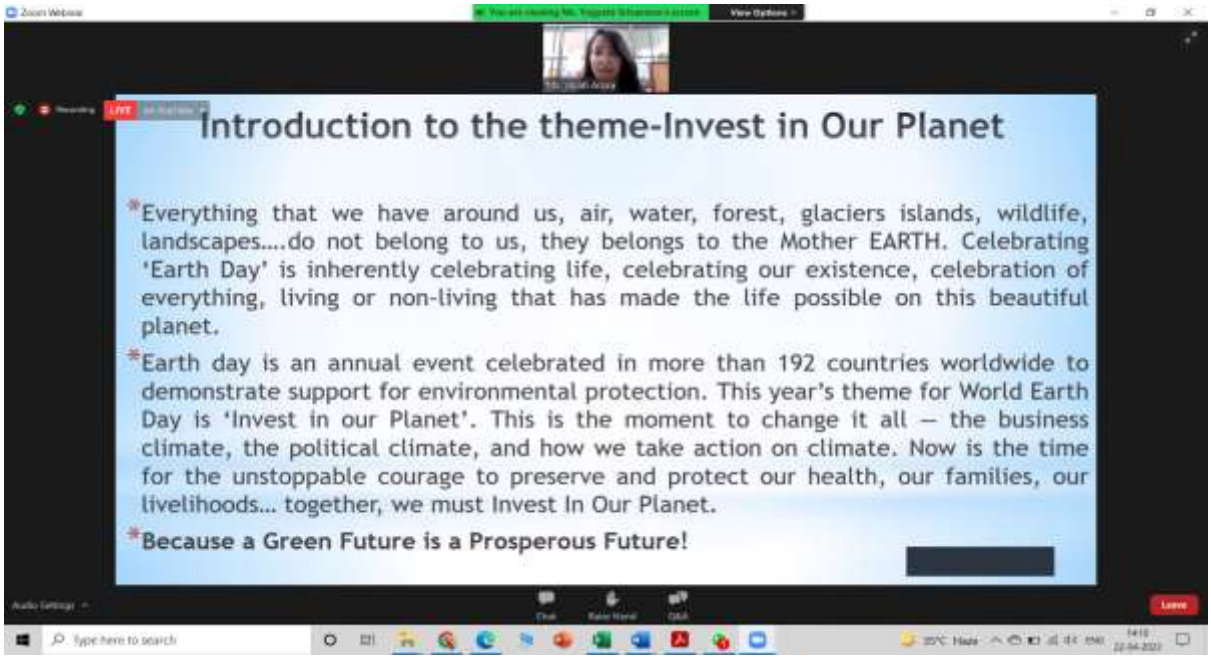
Introduction of the Amity Institutes, Environmental Initiatives and theme by Prof. Tanu Jindal:

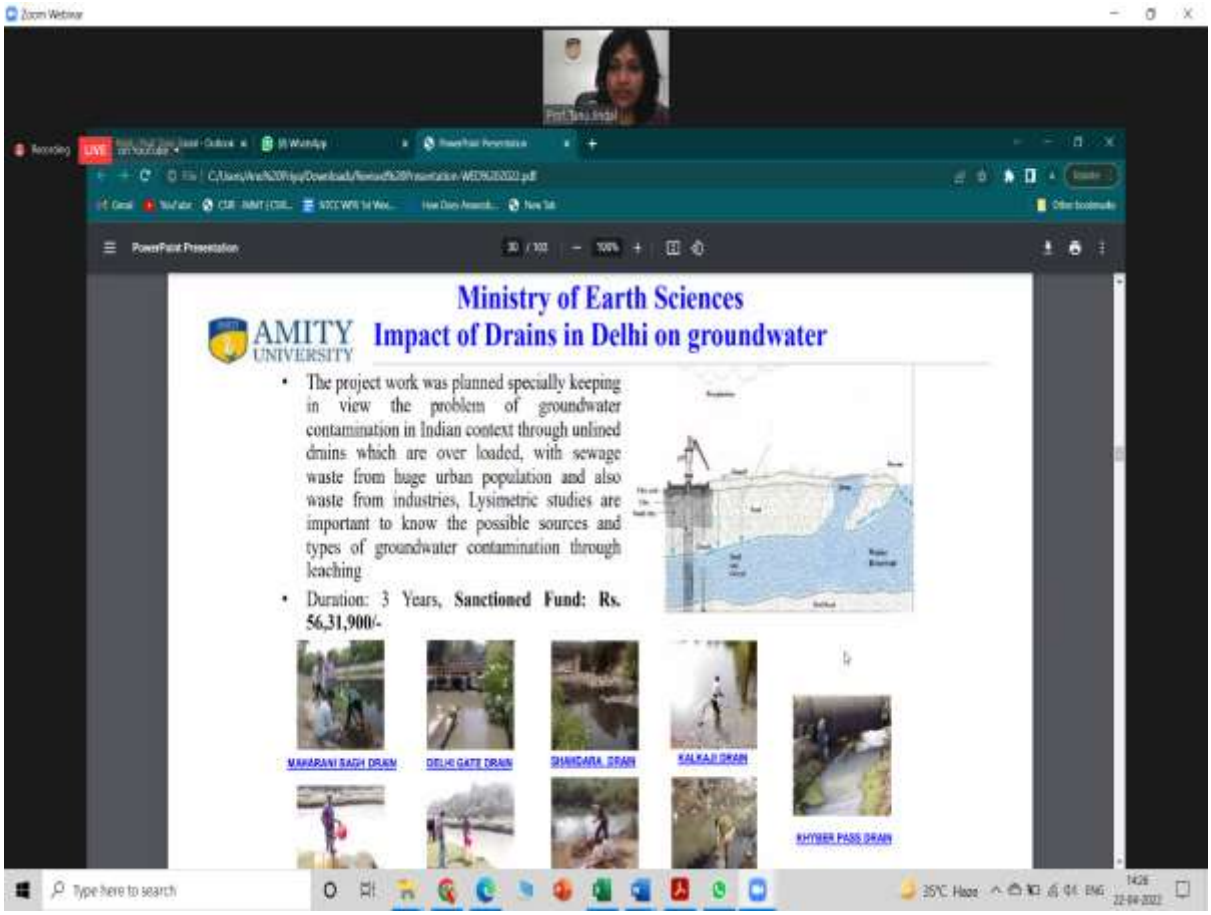
Prof. (Dr.) Tanu Jindal, Group Additional Pro Vice Chancellor (R&D), Director, Amity Institute of Environmental Toxicology, Safety and Management, Amity Centre of Antarctica Research and Studies, Amity University, welcomed all the esteemed guests and eminent speakers, Amity staff and eminent speakers.

She mentioned that the green future is a prosperous future. She also summarizes the topic of sustainability, its objectives and importance.

She talked about reducing carbon emission by switching to sustainable transport like- e vehicles, bicycles etc, A low carbon diet, avoid processed meat, low packaging foods, reduce waste and reuse it are some of the objectives to minimize the climate change with sustainability.

She spoke on the most burning topic of climate change and the need for a sustainable future. She also focused on the Environmental initiatives taken by Amity University through various research projects, academic courses and awareness programs, conference, seminars, workshops and training courses etc. She also welcomed all the eminent speakers of the webinar.



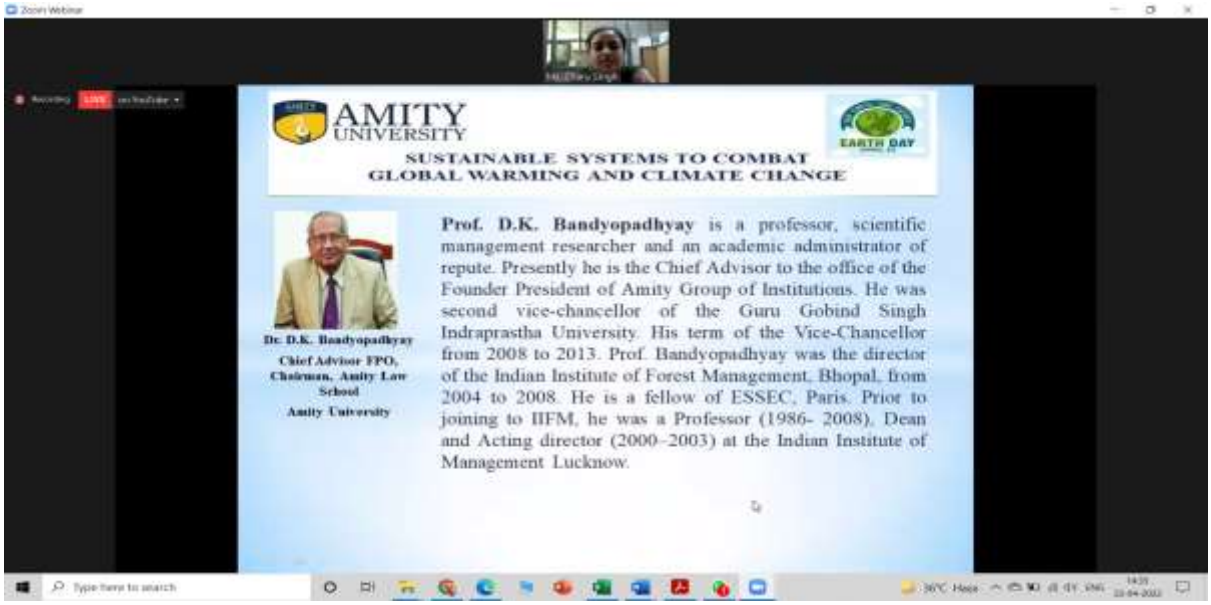


Dr. D.K Bandyopadhyay,

Chief Advisor FPO, and Chairman

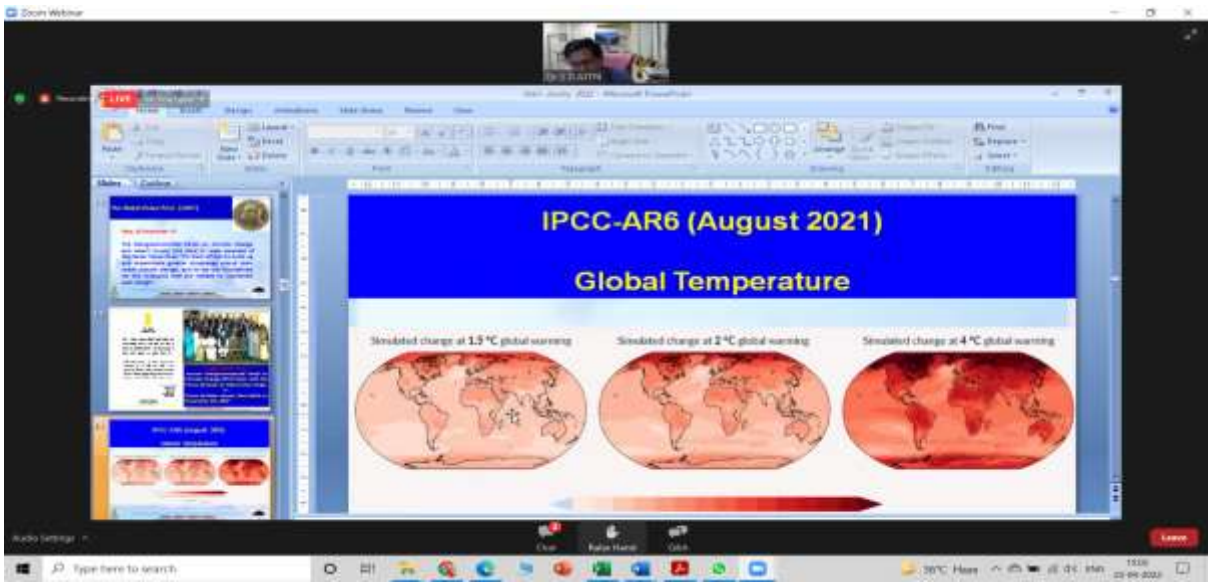
Amity Law School, Amity University, Noida.

He discussed the life origin on the Earth and stated that homosapiens appeared on the Earth around 1 lakh 30 thousand 2 lakh years ago. Earth is the only planet for life's survival. He also discussed climate change. The temperature of the Earth is rising due to the increase of greenhouse gases like CO_2 which persist for a long time. He also discussed about sustainability and climate change. Warming planet is a major challenge for sustainability. Human activities that contribute to climate change are, by definition, not sustainable, as they alter the very planet we depend on for all our needs. But climate change also makes it harder to find sustainable solutions to other problems.



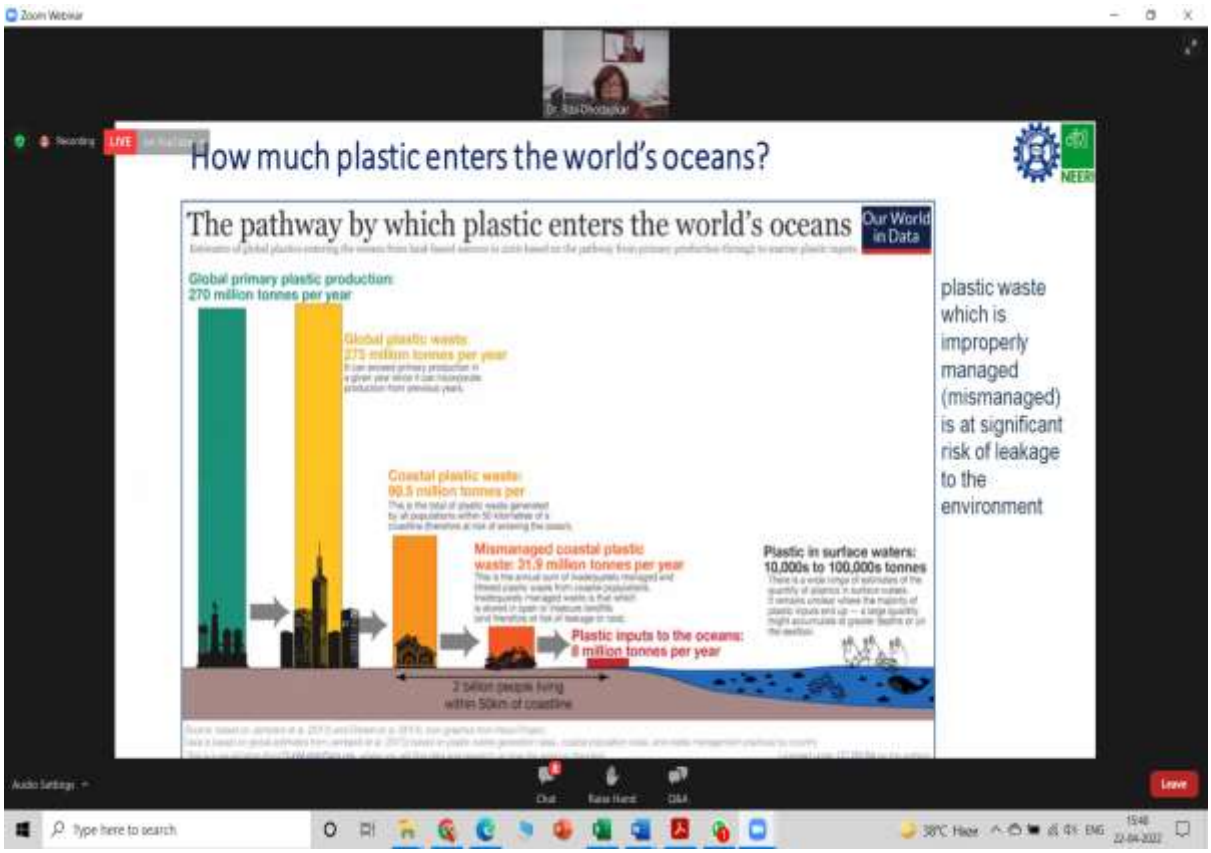
Dr. S. D Attri,
Additional Director General of Meteorology
India Meteorological Department
Ministry of Earth Science.

He discussed climate change and management strategies. He also discussed development policy. He stated main greenhouse gases such as CO_2, CH_4, N_2O, CFC_{11} ,etc. Globally, 3.3 to 3.6 billion people live in areas that are highly vulnerable to climate change. Less than 15 % of the land, 21 % of the freshwater and 8 % of the ocean are protected areas. India is one of the most vulnerable countries globally in terms of population that will be affected by sea-level rise and affected coast cities. Five states (UP, Bihar, West Bengal, Meghalaya, and Nagaland have shown significant decreasing trends in southwest monsoon rainfall during the recent 30-year period.



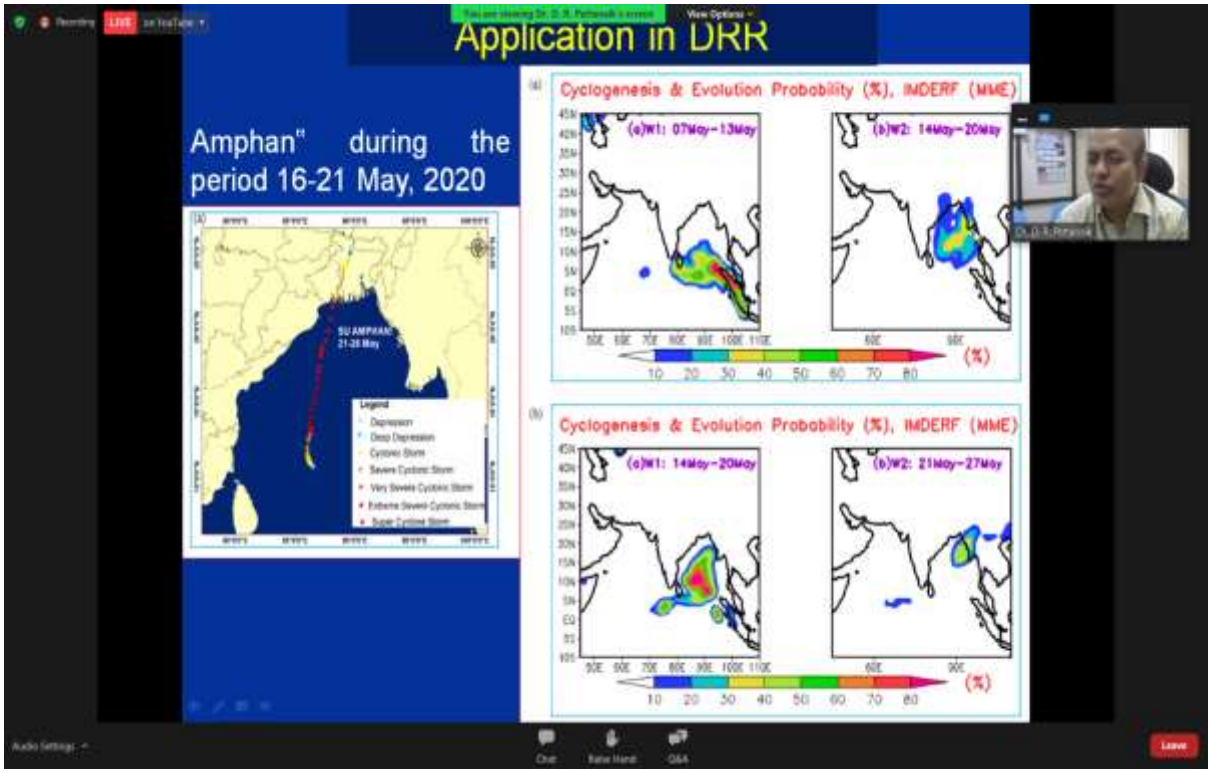
Dr. Rita Dhodapkar
Principal Technical Officer and Science Secretary
CSIR-NEERI, Nagpur ACSIR, Faculty.

She discussed **"Sustainable Plastic Waste Management"**. Plastic is low-cost, lightweight, versatile, and has a high strength-to-weight ratio, thus used for a wide range of everyday applications (eg: automotive, packaging, and housing). 260 megatons of plastic waste are produced annually worldwide. Plastic during incineration emits CO_2 about three times the mass of plastics incinerated. She also discussed macro plastics on the surface of the ocean. Chemical recycling is a process in which plastic waste can be recycled to convert it to oil, gas or its monomeric constituents by chemical conversion. Oil and gas can be used as fuel. The monomer can be used for new chemical reactions of polymerization. She discussed on six elements of a circular economy for plastics. Circular economy model aimed at the efficient use of resources through waste minimization, long term value retention, reduction of primary resources, and closed loops of products, product parts and materials within the boundaries of environmental protection and socio- economic benefits.



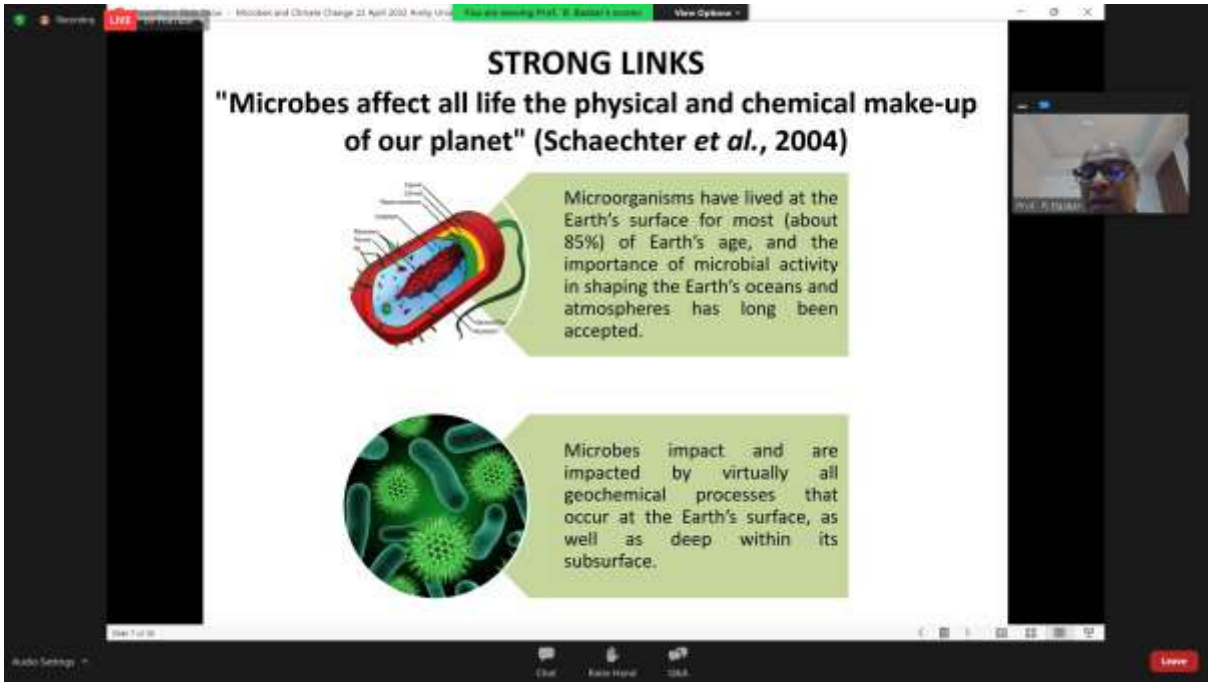
Dr. D. R. Pattanaik
Scientist-F, Head (Numerical Weather Prediction) Division
Nodal Scientist for Extended Range Forecast
India Meteorological Department
Secretary-Indian Indian Meteorological IMD

He discussed the **"Seamless prediction system of extreme weather System"**. The anthroposphere is that part of the environment that is made or modified by humans for use in human activities and human habitats. Climate change may be due to natural external forcing, such as changes in solar emission or slow changes in the earth's orbital elements; natural internal processes of the climate system; or anthropogenic forcing. Disaster risks are increasing due to the increasing intensity and frequency of hydrometrical hazards. Climate change is leading to the increasing frequency of extreme weather. The risk of climate change is inequitable developing countries like India will be impacted more. Impact-based forecasting will be very useful in minimizing the adverse impacts of adverse weather through effective disaster management.



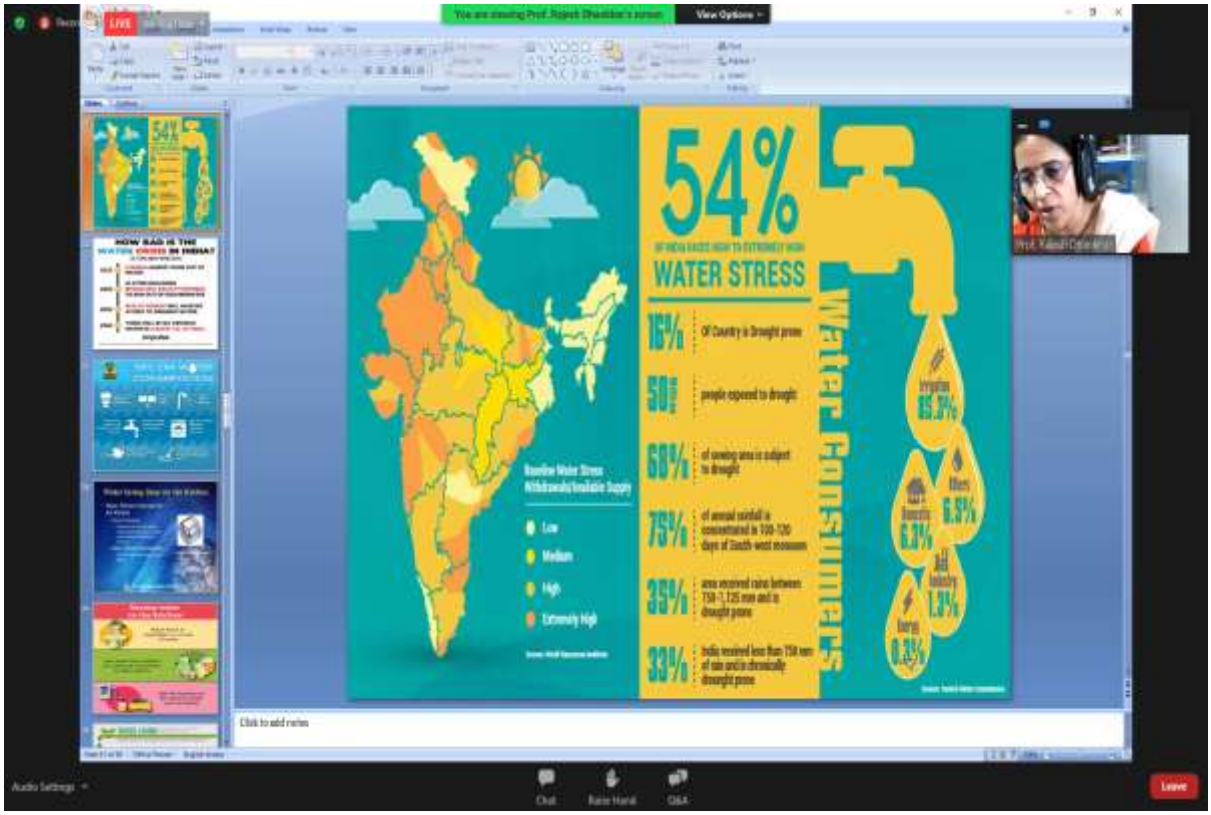
Prof. R. Baskar
Professor in Geology
School of Sciences
Indira Gandhi National Open University

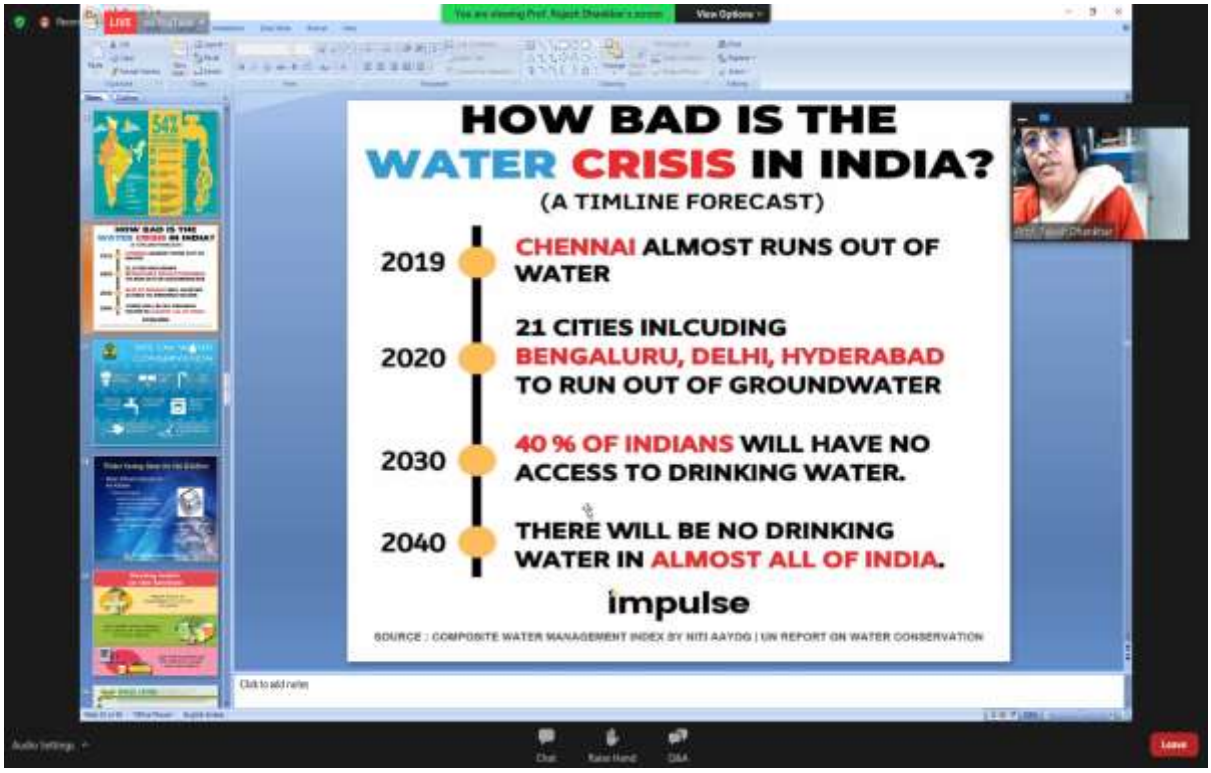
He discussed microbes and climate change. Microorganisms established the geochemical conditions on Earth that enabled the evolution of plants and animals. Their unique roles in the nitrogen, phosphorus, sulfur, and carbon cycles. Methane-producing microbes may be responsible for the largest mass extinction in Earth's history. Climate change could impact the vital functions of microbes. Microbes perform a number of critical functions for ecosystems around the world. The surface temperature of the tropical ocean has warmed 0.5-0.7 ^{o}C over the past two to three decades. Carbon dioxide is getting into the ocean, forming carbonic acid, reducing the pH of seawater. Less Ice is changing polar ecosystems that depend on sea ice cover. He stated that we can control climate change, but unless we understand and harness the powers of our microbial co-habitants, we might be fighting a losing battle.



Prof. Rajesh Dhankhar
Professor
Department of Environmental Science
M D. University, Rohtak.

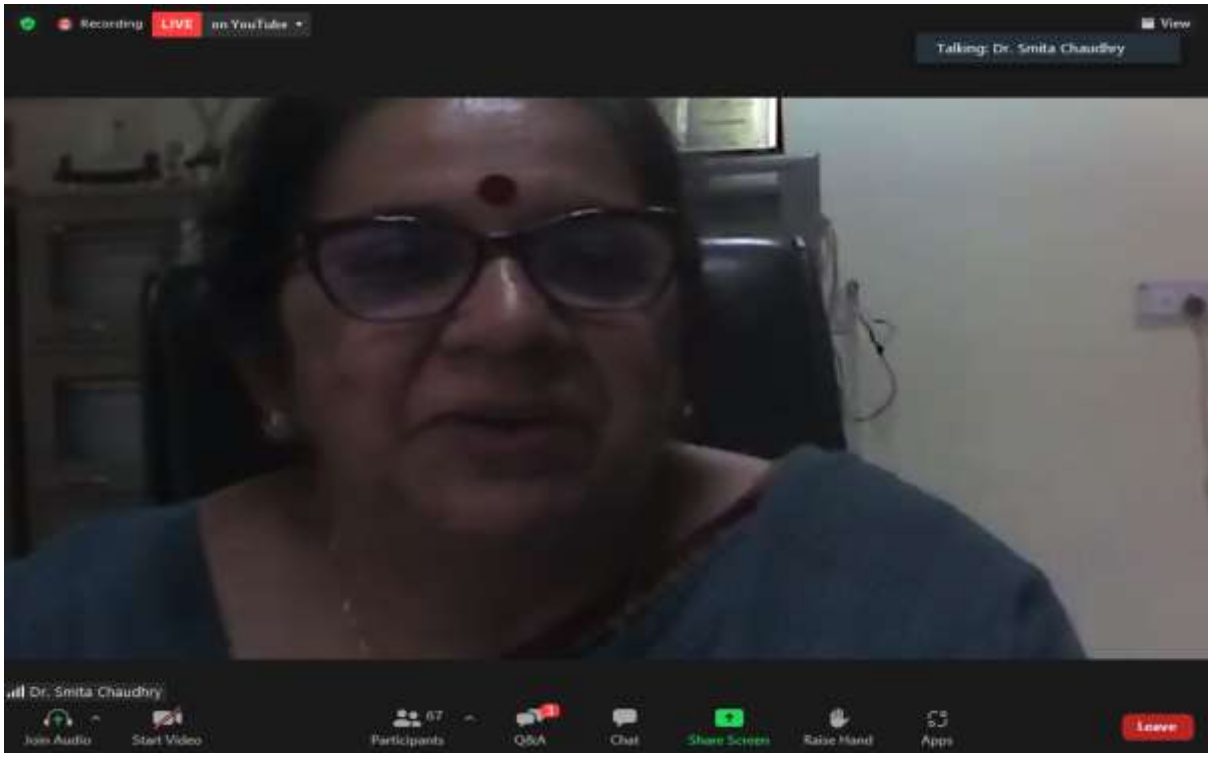
She discussed 5 basic principles of a green building, sustainable site design, water conservation and quality, energy and environment, conservation of resources & reuse of materials, and indoor environmental quality. India comes in the list of the leading countries in terms of the power sector or the renewable energy sector. India is the fourth largest solar installed capacity country in the world and the third-largest renewable energy installed capacity country in the world. She also discussed green building and waste management. The National Water Mission (NWM), Ministry of Jal Shakti in collaboration with Nehru Yuva Kendra Sangathan (NYKS), Ministry of Youth affairs and sports have launched the "Catch the Rain" awareness generation campaign.


54%
WATER STRESS
15%
50%
68%
75%
35%
33%
Water Consumers
Irrigation 85.3%
Others 6.3%
Domestic 6.3%
Industry 1.3%
Energy 0.3%


HOW BAD IS THE
WATER CRISIS IN INDIA?
(A TIMLINE FORECAST)
2019
CHENNAI ALMOST RUNS OUT OF WATER
2020
21 CITIES INLCUDING BENGALURU, DELHI, HYDERABAD TO RUN OUT OF GROUNDWATER
2030
40 % OF INDIANS WILL HAVE NO ACCESS TO DRINKING WATER.
2040
THERE WILL BE NO DRINKING WATER IN ALMOST ALL OF INDIA.
impulse
SOURCE : COMPOSITE WATER MANAGEMENT INDEX BY NITI AAYOG | UN REPORT ON WATER CONSERVATION

Prof. Smita Chaudhry
Dean, Life Sciences, Professor & Director
Institute of Environmental Studies
Kurukshetra University, Haryana

She discussed the challenges of sustainable development and climate change. The interaction between sustainable development and climate change is very complex. The complex issue cannot be addressed in isolation. India has participated in the program for the reduction of climate change (GDP 30-32 %). She also discussed cleaning the rivers through the Swachh Bharat Mission. She discussed on topics emission reduction, climate change, carbon sequencing, RED+, National policy of afforestation, SDG goals to sustainable goal for India. Today, the Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA) provides substantive support and capacity-building for the SDGs and their related thematic issues, including water, energy, climate, oceans, urbanization, transport, science and technology, the Global Sustainable Development Report.



The vote of thanks was given by Ms. Prangya Rath.

<u>Please find some photographs of the event.</u>