

NATIONAL WEBINAR



ON



“IMPACT OF COVID-19 PANDEMIC ON OUR WATER RESOURCES”

3rd July, 2021

Session Report

**Jointly Organized by Dept. of Physics, K.N. Mahavidyalaya, Sonamura
&
Dept. of Physics, Ambedkar College, Fatikroy**

Organizing Secretary: Dr. Mihir Pal

Convener: Dr. Chandan Debnath

Chairman: Dr. Udai Narayan Adhikary

President: Dr. Subrata Sharma

Chief Patron: Sir N.C. Sharma, Director, Higher Education

Govt. of Tripura

Resource Persons:

1. Dr. (Prof) Pankaj Kumar Roy, Dean of Jadavpur University, Director of the Water Resources Engineering, Jadavpur University
2. Dr. Sushant Kumar Biswal, Asstt Prof, Dept. of Civil Engineering, NIT Agartala
3. Dr. Malabika Biswas Roy, Assistant Professor and Head of the Department of Geography, Women's College Calcutta
4. Dr. Dipanwita Nag, Medical Officer, ONGC, Tripura Asset

The Department of Physics, Kabi Nazrul Mahavidyalaya, Sonamura in collaboration with, Dept. of Physics, Ambedkar College, Fatikroy had organized a National Webinar on 3rd July 2021 from 11 am onwards on a very relevant topic of the current pandemic situation “Impact of Covid-19 Pandemic on our water resource” and a total no. of 215 participants had participated for the Webinar from all over the country. The program was inaugurated by the Chief patron of the webinar sir Sri N.C Sharma, Director, Higher Education, Govt. of Tripura by virtual lightning followed by Saraswati Bandana. The

National Webinar
on
“Impact of Covid-19 pandemic on our Water Resources ”

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Dept. of Physics, Kabi Nazrul Mahavidyalaya, Sonamura, Tripura
&
Dept. of Physics, Ambedkar College, Fatikroy, Unakoti, Tripura

CHIEF PATRON **RESOURCE PERSONS**

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| Shri N. C. Sharma TCS, SSG Director, Higher Education Govt. of Tripura | Prof. Pankaj Kumar Roy Dean of Interdisciplinary Studies, Law and Management of Jadavpur University Joint Director of the Dept. of School of Water Resources Engineering, Jadavpur University (JU). | Dr. S.K Biswal Assistant Professor, Dept. of Civil Eng. NIT, Agartala | Dr. Malabika Biswas Roy Assistant Professor and HOD Dept. of Geography, Women's College, Calcutta | Dr. Dipanwita Nag Medical Officer, ONGC, Tripura Asset |

Organizing Committee

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| Chairman: Dr. Udai Narayan Adhikary Principal-in-charge Kabi Nazrul Mahavidyalaya Sonamura | President: Dr. Subrata Sharma Principal In-Charge, Ambedkar College, Fatikroy |
| Organizing Secretary: Dr. Mihir Pal Associate Professor, Dept. of Physics, Kabi Nazrul Mahavidyalaya | Convener: Dr. Chandan Debnath Assistant Professor, Dept. of Physics, Ambedkar College |

Member
Sri Sanjib Chaudhury, Associate Professor, Ambedkar College
Dr. Manish Nandi, Assistant Professor, Ambedkar College
Dr. Shyamal Das, Assistant Professor, KN Mahavidyalaya
Smt. Sima Datta, Assistant Professor, KN Mahavidyalaya

Date : 3rd July, 2021
Time : 11 a.m. onwards

Google form link to registration
<https://forms.gle/gFvii3kFtQcimtN6>

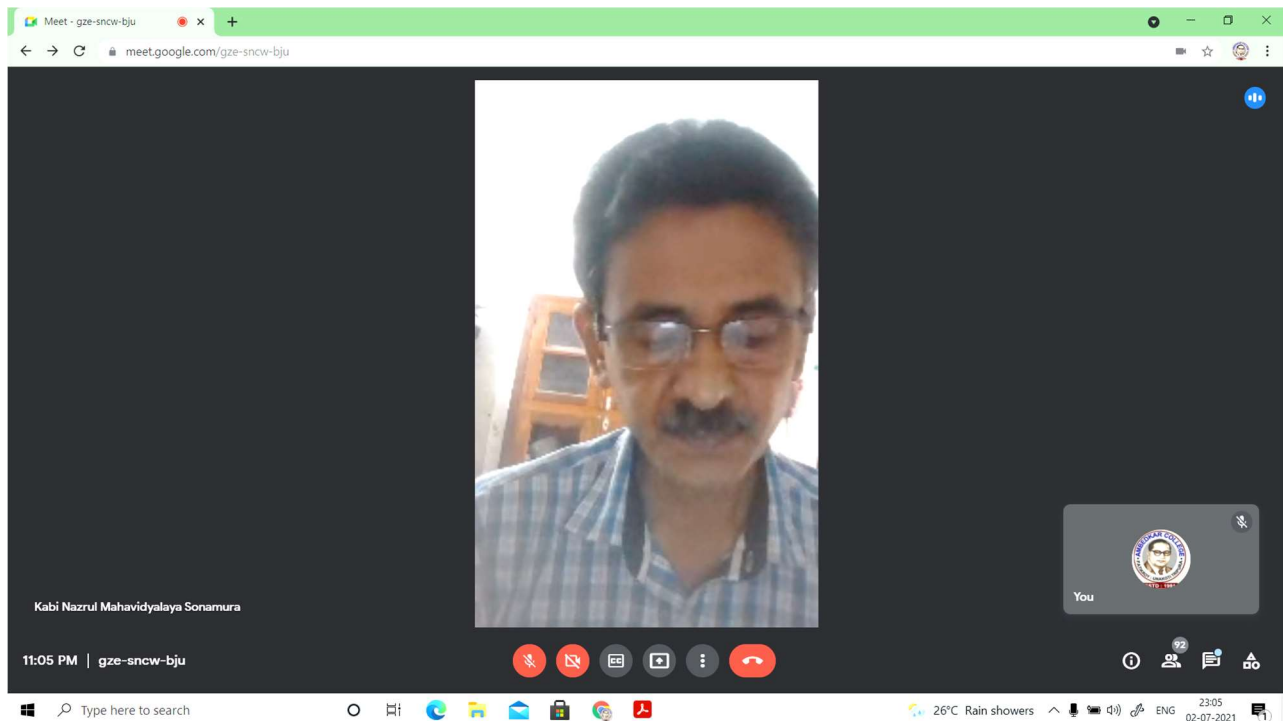
Google meet Link to join
<https://meet.google.com/gze-sncw-bju>

◆ E-certificate will be provided to the registered participants only those who will attend all lectures and submit the feedback form at the end

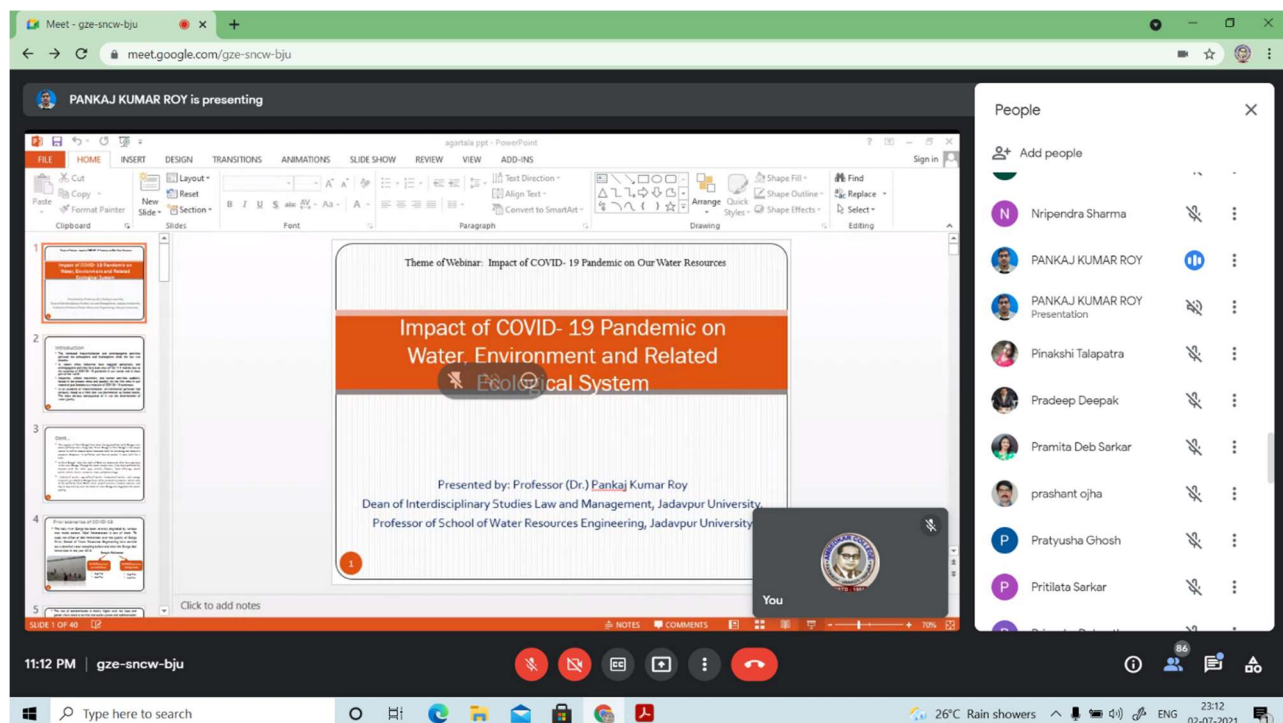
organizing secretary Dr. Mihir Pal presented the welcome address to all the participants. In the inaugural session, speech from Chief Patron of the webinar sir Sri N.C Sharma, Director, Higher Education, Govt. of Tripura and from the chairman of the organizing Committee Dr. Udai Narayan Adhikary, Principal In-charge, K.N Mahavidyalaya were very inspiring for all of us, as they have reflected several issues related to our water resources in connection with Covid-19 pandemic and the importance of organizing a national level webinar on such a beautiful and relevant topic. Sir N.C Sharma in his informative speech has highlighted several key issues related to the impact of the covid-19 pandemic on our water resources in the national level scenario.



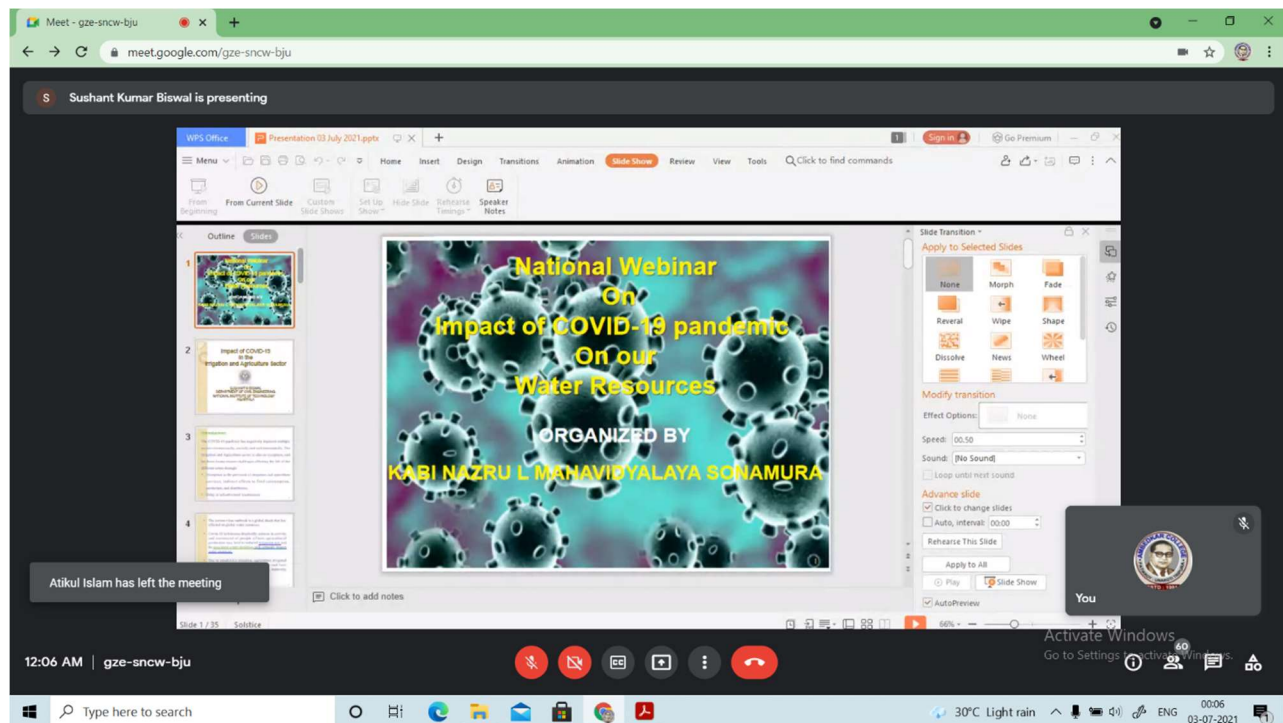
The webinar was addressed by eminent academicians; Prof. (Dr.) Pankaj Kumar Roy, Dean of Jadavpur University and Professor and Joint Director of the Department of School of Water Resources Engineering, Jadavpur University (JU), Dr. Sushant Kumar Biswal, Assistant professor, Dept. of Civil Engineering, NIT, Agartala, Dr. Malabika Biswas Roy, Assistant Professor and Head of the Department of Geography, Women's College Calcutta and Dr. Dipanwita Nag, Medical Officer, ONGC, Tripura Asset.



The resource persons took up the topic of discussion from various aspects of learning by using their views, experiences, and critical reflections on such a vital issue of water resources. Prof. Pankaj Kumar Roy discussed on impact of the Covid-19 Pandemic on our Water, Environment, and Related Ecological system. In his speech he has highlighted on pollution of the Ganga river pollution in West- Bengal and also the Howrah River in Tripura, due to surface runoff of wastewater. He has commented on the increased demand for freshwater from the Indian perspective , with the urban population growth. He has highlighted the roles of the Central Pollution Control Board for the supply of freshwater under quality-controlled conditions throughout entire India and also explained how this activity has become a challenging task for the board in this Covid-19 pandemic situation. He has an expectation that as the COVID-19 period has stopped all the major industrial sources of pollution that affect aquatic systems, Industrial wastewater, crude oil, heavy metals, and plastic disposal into the river have completely stopped. So it is expected that several major Indian rivers including Ganga will be more and cleaner due to second wave lockdown. He has explained very nicely how the different sectors in India including agriculture are being affected directly or indirectly due to the impact of the covid-19 pandemic on our water resources. He also discussed different observable changes of the Covid-19 lockdown on our Ecology and Environment.



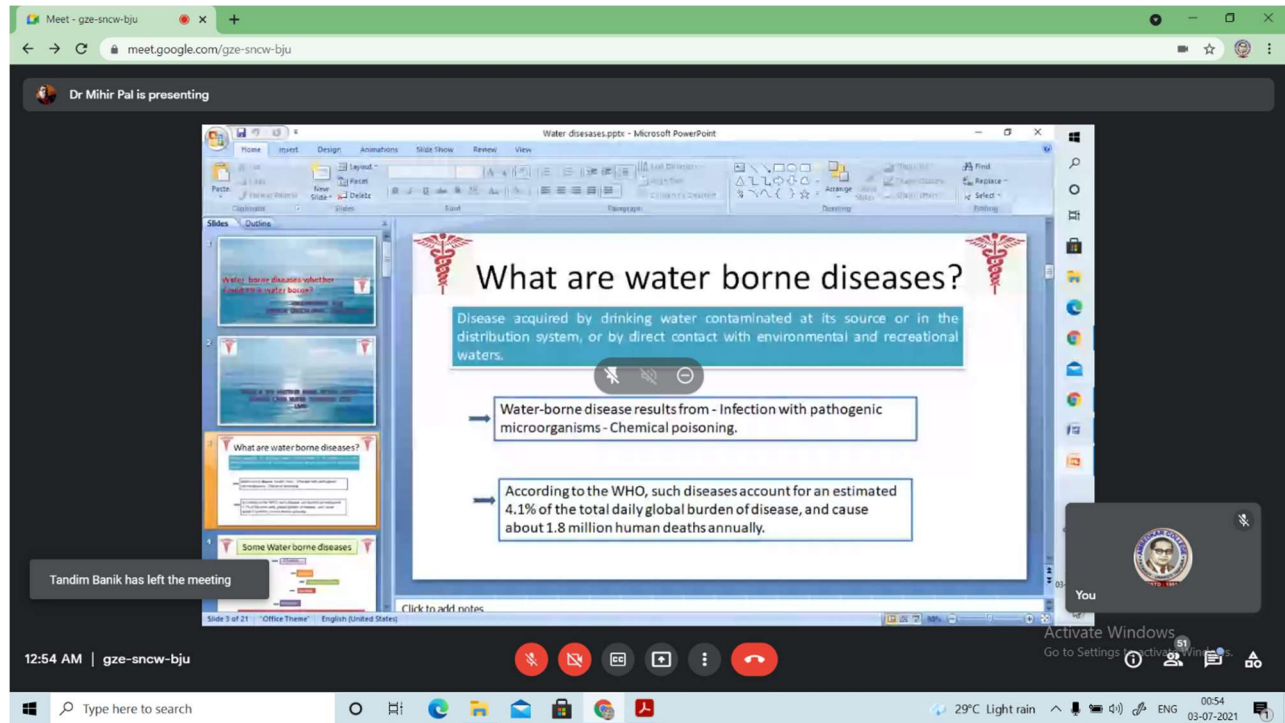
Dr. Sushant Kumar Biswal discussed how the Covid-19 pandemic is affecting the irrigation and agricultural sectors of India. He has commented that the agriculture sector is facing serious challenges due to this pandemic through disruption in the provision of irrigation and agriculture



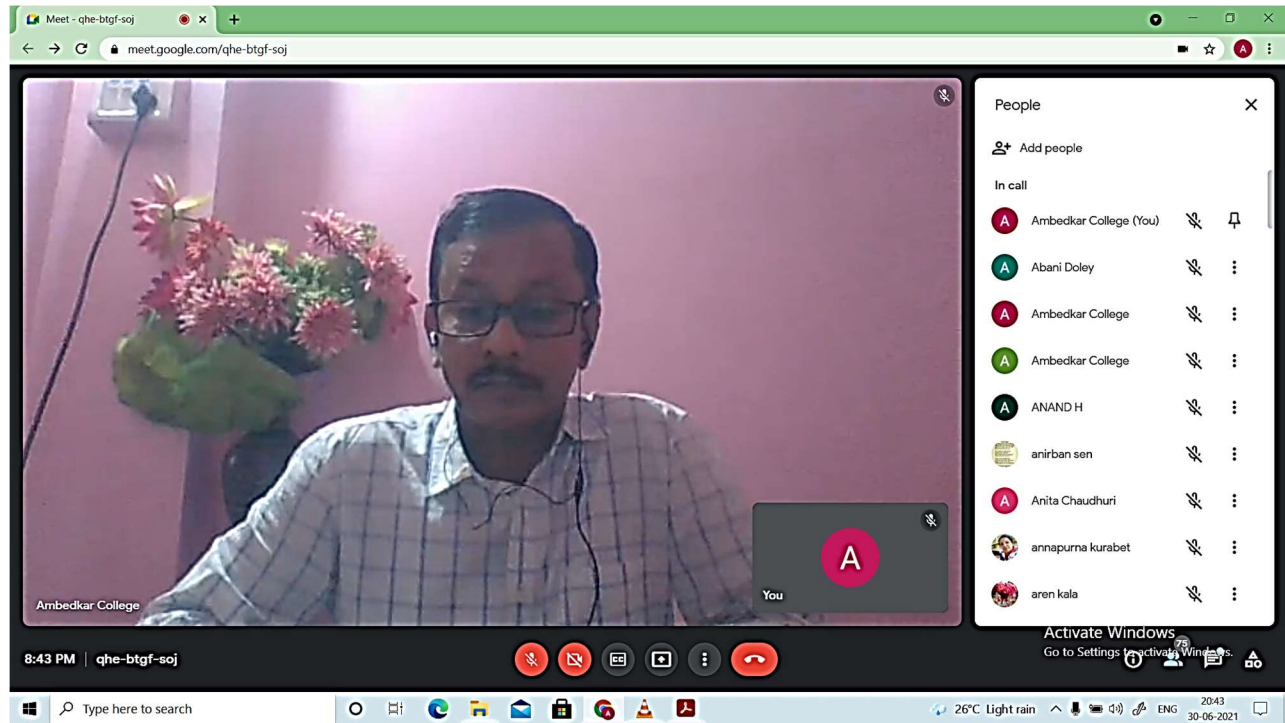
services by affecting food consumption, production, and distribution. According to him, the Covid-19 situations in rural districts of agricultural states are deteriorating more substantially. He has demonstrated very nicely through the slide show, how the agricultural value is being affected by covid-19 throughout the entire nation. The crop cycle in India has two main seasons-Rabi and Kharif and according to him, both the cycles are severely affected by the lockdown driven by the pandemic. He has also shown how the agriculture sector, in different regions of India, is highly affected due to the impact on production and marketing of related materials in this covid-19 pandemic period. According to him, India must insist on innovative solutions and new policies to ensure that if India emerges in any economic crisis due to the covid-19 issue then it should not only aware of the countries' weakness but also primed to effect the necessary changes.

The screenshot displays a Google Meet window with a PowerPoint presentation. The presentation title is "PPT DR MALABIKA BISWAS ROY - PowerPoint". The current slide is titled "Infections and replication cycle of the coronavirus (Acter et al., 2020)" and features a detailed diagram of the virus's life cycle. To the right of the diagram is a bar chart titled "Number of Covid-19 cases reported weekly by WHO region, and total deaths, up to September 06, 2020 (Data source: WHO)". The chart shows weekly reported cases and deaths across various WHO regions, with a significant increase in total cases and deaths over time. The meeting interface includes a "People" list on the right with participants such as Khetooan khetey, Loushambam Manisana si..., Malabika Biswasroy, Malabika Biswasroy Presentation, MANISH NANDI, melody darling, Minakshi Ghosh, PANKAJ KUMAR ROY, Paramasivam P, and Pramita Deb Sarkar. The Windows taskbar at the bottom shows the time as 12:27 AM and the date as 03-07-2021.

Dr. Malabika Biswas Roy in her lecture mainly showed how the covid-19 pandemic is affecting our environment and water bodies and related socioeconomic system. In her lecture, she has highlighted the general concept of covid-19 & its outbreak, the impact of covid-19 on the water sector, analysis of the impact of Covid-19 on environmental aspects, and finally the impact of Covid-19 on the socio-economic sector. She showed that as an outcome of several studies this has been found that Water consumption during this Covid-19 pandemic, basically in relation to household works, hand washing, etc. have been increased by 17%. She has highlighted the issue of severe losses on pisciculture in west-Bengal; due to the combined effect of lockdown and cyclones. She also commented in her lecture that the future water demand, mainly for domestic consumption, would be based on how a majority of the population prefer to work in post-Covid -19 periods as there is evidence for increased demand for packaged and or bottled water consumption in global cities. Finally, she has discussed on overall impacts of Covid-19 on the socio-economic scenario.



Dr. Dipanwita Nag talked about different water-borne diseases and discussed the fact that whether Covid-19 is water borne? She has mentioned in her lecture that according to the WHO, water-borne diseases account for an estimated 4.1% of the total daily global burden of disease, and cause about 1.8 million human deaths annually. She has discussed several water-borne diseases and their causes, symptoms, effects, clinical diagnosis, and treatment guidelines. She has shown in various slides that how different pathogens present in water and wastewater are responsible for potential risks to public health. Finally, she has highlighted the issue that whether Covid-19 is waterborne? In this section, she also highlighted the structure of corona virus and show documentary clips about how this virus spreads from person to person to develop a pandemic. In her lecture, this has been explored that SARS-CoV is stable in feces at room temperature for a minimum of 1–2 days and can survive for up to 4 days in stool from diarrheal patients. According to her lecture, SARS-CoV-2 has already been detected in feces raising the possibility of fecal-oral transmission especially during flushing which can aerosolize fecal matter, resulting in airborne transmission and such probability of transmission is high in hospital and quarantine centers settings where toilets are shared. She also commented that corona viruses can survive up to 2–3 days in sewage water and up to 10 days in tap water at 23 °C; however, temperature, organic matter levels, and presence of antagonistic bacteria and oxidants such as chlorine are also the factors for its survival in water. Finally, she concluded that the persistence of the virus in water and sewage is yet to be investigated more before declaring it as waterborne.



Towards the end of the lecture session, the resource persons lucidly clarified and answered queries posted by the participants in the chat box. With positive feedback from the participants, the Webinar concluded with the Presidential address made by Dr. Subrata Sharma, Principal In-charge Ambedkar College. Finally the feedback forms collected from the participants explored that the objective of the webinar was achieved as the overall session discussion benefitted the faculties and research scholars.