

Webinar
on
Geomatics for Forest Ecosystems

15 December 2020

Forest Ecology and Climate Change Division,
Tropical Forest Research Institute, Jabalpur

A monthly seminar on Geomatics for Forest Ecosystems was organized by Tropical Forest Research Institute (TFRI), Jabalpur.

Dr. Avinash Jain, Scientist-F&Head, Forest Ecology and Climate Change Division, TFRI Jabalpur welcomed all the participants and narrated brief biodata of the speakers, i.e., Dr. J.S. Parihar, Deputy Director (Retd.), SAC-ISRO, Ahmedabad & Former- Satish Dhawan Distinguished Professor and Dr. M.D. Behera, Associate Professor, CORAL & School of Water Resources, IIT Kharagpur.

Dr. G. Rajeshwar Rao, ARS, Director, TFRI welcomed the speakers and briefed about the importance of geomatics in various aspects of forestry and its possibilities in monitoring of invasive species, forest fragmentation etc. He welcomed all the participants and recommended to clarify their queries and benefit through the extensive experiences of the eminent speakers.

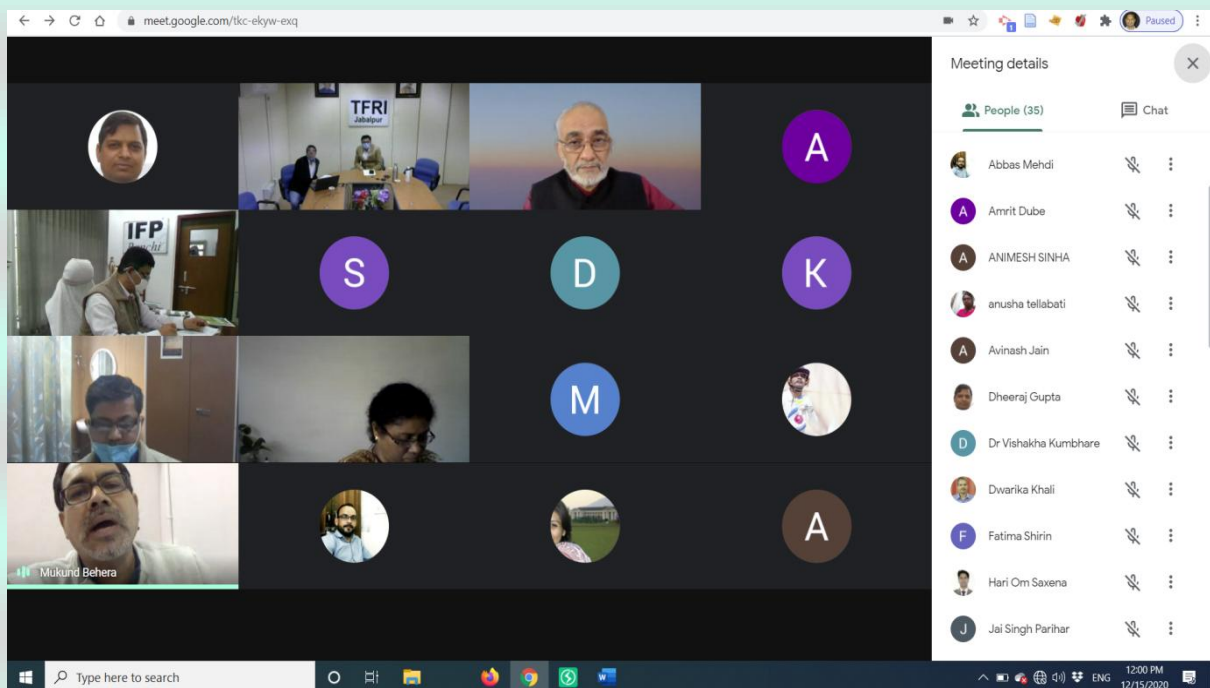
Dr. Parihar expressed his gratitude towards Director, TFRI for giving the opportunity to address the young gathering. While commemorating the first book published in the field of remote sensing in India by Maslekar and Tomar, he accentuated forestry sector as the forefront of the subject remote sensing. Further, he described forest ecosystem as complex commodity and remote sensing as the tool to make it accessible. He presented on the aspects informing accuracy achieved by use of remote sensing to monitor small changes in weather and forestry. He also discussed about the dimensions of Indian earth observations, geographical information system, remote sensing based system for natural science, approaches to study forest ecosystem, forestry parameters studied using remote sensing and GIS, spatial bioclimatic data etc. Discussing about his experiences, he shared case studies and results of his study conducted in Bandhavgarh, Kanha and Madhav national parks and initiatives like HIMADRI. He also emphasized on integrated approach for hydrological and forested watershed. Lastly, he briefed about ISRO partnership with several institutes like TFRI, FRI, BHU, ICAR, SFRIs etc. He concluded by expressing keen interest in vegetation science and encouraged the participants to contribute in the research pool of the same.

Dr. M.D. Behera, initiated his talk by emphasizing the importance of habitability of the earth and greenhouse warming and its variation in other neighbouring planets. He further presented about total carbon in earth and Indian forests and carbon flux tower. Briefing about his studies at Dudhwa and Bhitarkanika national parks, he showed use of multiple datasets in hybrid approach for better representation in spatial map. He also briefed about the SCARF (Southampton carbon flux) model to study seasonal and monthly fluctuations and their relationship with productivity and photosynthetic activity. Lastly, he concluded by stating that its time to work to protect our planet and proposed TFRI/ICFRE for selecting and maintaining plots for long term ecological research and developed allometric equation to reduce the uncertainty for calculating carbon in order to increase accuracy in carbon estimation.

Dr. Avinash Jain informed about ongoing AICRP project for long term ecological research covering almost all the forest types of the country. He also updated about developed allometric equations for biomass calculation of different tree species by TFRI and various other ICFRE institutes.

Shri. Dheeraj Gupta, Scientist-C delivered the formal vote of thanks. Around 40 participants including Dr. Kulkarni, IFP, Ranchi and Dr. Rizvi, Cafri along with scientists, professors, technical officers, research fellows and scholars from different institutes of ICFRE and other organizations attended the webinar.

Photo Gallery



Participants of the webinar on Geomatics for Forest Ecosystems organized by TFRI, Jabalpur

Use of open access data and online analysis

Site: VEDAS, Space Applications Centre
 Data: Sentinel-2, 10-day composite NDVI, 10m
 Analysis: Grasslands of Kanha Tiger Reserve

Peak NDVI (Mean/Std)

Site No.

Meeting details: People (39), Chat

Lead Talk by Dr. J. S. Parihar on Geomatics Applications in Forest Ecosystem Studies

Global Temperature during the past 500 million years

30°C
10°C

500 400 300 200 100 0

Earth temperature change during the past 70 million years

Temperature (°C)

Age (millions of years)

Meeting details: Mukund Behera is presenting, 12:10 PM

Dr. M.D. Behera presenting on Forest Carbon & Remote Sensing

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