



MoEF&CC

**NMHS**  
National Mission on  
Himalayan Studies

75  
Azadi Ka  
Amrit Mahotsav

**Open Workshop**  
**14<sup>th</sup> December 2021**  
10:00 AM - 03:30 PM, IST

**Workshop on**

**Biosphere- Atmosphere -Hydrosphere  
Interactions of Himalaya**  
( **Status, Challenges, and Way forward** )

  
**GBP NIHE**  
G. B. Pant National Institute of Himalayan Environment ,  
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Under NMHS MoEF&CC Gol Project-  
**Pine and Oak system of Himalaya: water, climate and plant biodiversity**

The Indian Himalayan region (IHR) is a source to more than 03 million natural fresh water springs, more than 9500 glaciers storing about 12,000 km<sup>3</sup> of freshwater, and having around **02 of 36** global biodiversity Hot Spots with 32% endemic flora. The IHR also represents diverse climatic zones, from tropical – sub-tropical to alpine - cold desert, which experience two precipitation regimes through summer monsoon and western disturbances. The extremely complex topography along with heterogeneously distributed forests of IHR results in non-linear forced interactions amongst biosphere – atmosphere – hydrosphere regimes. Moreover, these interactions are further expected to change under a warmer climate. Through in-depth scientific comprehension, numerical quantification of these interactions with knowledge of the gaps and challenges is extremely imperative. Therefore, this workshop, for celebrating '**Azadi Ka Amrit Mahotsava**' and as part of the NMHS project '**Pine and Oak system of Himalaya: water, climate and plant biodiversity**' is anticipated to bring together the researchers and planners of Himalaya on the interface of interacting regimes of Himalayan Biosphere-Atmosphere- Hydrosphere for better comprehension leading to pertinent policy prescriptions.

**Chair :** Prof. V. K. Gaur,  
Distinguished Scientist, CSIR-4PI, Bangalore

**Invited speakers:**

- Prof. S. N. Tripathi, IIT Kanpur; India
- Prof. Raghu Murtugudde, Uni. Of Maryland, USA
- Prof. A. P. Dimri, JNU, India
- Prof. S. Ghosh, IIT Bombay, India
- Dr. Sumit Sen, IIT Roorkee, India
- Dr. K. K. Osuri, NIT Rourkela

**Expected outcome:**

A working paper / status document focusing on carbon and water budgets of Himalaya and expected changes in the biosphere regime under shock.

**Organizing committee:**

- Coordinator: Er. Kireet Kumar, Sc-G, Diector In-Charge, GBPNIHE
- Convener: Dr. Sandipan Mukherjee, Sc-D, CLWRM, GBPNIHE
- Co-Convener: Shri. Ranjan Joshi Sc-E, Dr. KC Sekar Sc-E, Dr. Vasudha Agnihotri Sc-D, Er. Ashutosh Tiwari Sc-C, Er. Vaibhav Gosavi Sc-C & Ms. Priyanka Lohani Project Co-ordinator, GBPNIHE (HQ).

**Webex link:** <https://nihe2.webex.com/nihe2/j.php?MTID=m3701c0b10eab19850c943cd917c71a91>  
Meeting number (access code): 2517 707 7332, Meeting password: Himalaya@2021