A Report on

Celebration of Bharat Ka Amrut Mahotsava

under theme 'Conservation of Cold Desert Area and Climate Change' held at Himalayan Forest Research Institute, Shimla on dated 7th May, 2021

Himalayan Forest Research Institute (HFRI), Shimla, celebrated the **Bharat Ka Amrut Mahotsava**, an initiative of Government of India, virtually on 7th May, 2021 under the theme 'Conservation of Cold Desert Area and Climate Change'. Over 70 participants including Scientists, Officers, technical staff, field staff and research scholars were connected through virtual mode.

At the outset **Dr. Ashwani Tapwal**, Head (Link Officer), Extension Division welcomed, Director, Experts, Scientists, Officers and field staff. He briefed about the background of the program and the lectures to be delivered by Experts on this theme. **Dr. R.K. Verma**, Director (Link Officer) highlighted the importance of program and urged all the participants to actively involve in the discussion. He highlighted the HFRI's initiatives in the cold deserts viz., identification of indigenous species for planting, development of nursery techniques of important native species viz. *Elaegnus angustifolia*, *Hippophae rhamnoides*, *Fraxinus xanthoxyloides* and *Quercus ilex*, documentation of flora of Hemis, High Altitude National Park of Ladakh, etc.

In the technical Session, **Sh. B.S. Rana**, CCF Retd., HPFSD talked about Wildlife biodiversity of cold desert of Himachal Pradesh and highlighted the various issues like hunting, competition between wildlife and livestock and pressure of migratory grazers. He also discussed the behavior of some wildlife such as Snow leopard and Serrow. He informed that population of some species like Brown bear has increased in the region, which is a good sign. Sh. Rana emphasized upon to follow strategies like involvement of local population, panchayat bodies in conservation of wildlife, capacity building development program for local people and frontline wildlife staff and awareness creation among people and improvement of infrastructure for conservation of the wildlife.

Dr. D.P. Sharma, Scientist, KVK Kandaghat, UHF, Solan elaborated upon introduction of apple in cold desert: a source of sustainable development. He discussed the peculiar and unique physiography and climate of the cold deserts and emerging opportunities of horticulture in the region. He shared the case study of apple introduction a Tabo, district Lahaul and Spiti of Himachal Pradesh and also highlighted problems like soil conditions, low survival of seedlings, non-availability of plants in local nurseries and higher initial investments. He also explained calendar activities for apple cultivation in the cold desert region and discussed the future scope and strategies for replication of apple cultivation in other parts of cold desert region.

Dr. Pawan Rana, Scientist-E, HFRI, Shimla discussed the butterfly and moth diversity of cold desert region. Speaker informed that in H.P. about 228 species of butterflies and 184 species of moths have been identified. Dr. Rana explained collection and identification mechanism of butterflies and moths, their habitats and life cycle. He highlighted the importance of butterflies and moths as indicator of climate change and importance in ecosystem. He also listed some species of moths responsible for defoliation of Poplar and Salix in cold deserts. He was of the opinion to develop butterfly parks for the conservation of these species and creation of awareness among people.

Dr. Vaneet Jhistu, Scientist-D, Himalayan Forest Research Institute, Shimla gave his presentation on Eco-restoration of cold deserts. He discussed key features of the region, which includes, harsh environment, short growing season, unique physiography and home to peculiar biodiversity especially medicinal herbs. He discussed major issues like high degree of sensitivity of biodiversity, grazing pressure, unregulated tourism, soil resources not understood adequately and lack of database on NTFPs. Dr. Jhistu also elaborated the initiative of HFRI in cold desert region, which include, survey of biodiversity especially in National Park and Wildlife Sanctuary areas, development of nursery techniques of cold desert species, identification of MPCAs and regeneration studies on Poplar and Salix. Plantation activities by different organizations of various species like *Poplar*, *Salix*, *Hippophae*, *Elaeganus*, etc. are contributing in greening the area, which will help in combating desertification. He emphasized to enhance the efforts to undertake research and develop strategies to combat desertification.

Sh. Pitamber Negi, Scientist-D, HFRI, discussed about *Juniperus polycarpos*: socio-ecological important tree for cold desert. He highlighted the special features of different Juniper species and their importance in socio-economic life of the people. Sh. Negi elaborated the distribution of *Juniperus polycarpos* in the cold desert region and highlighted its regeneration problems. He also discussed the breakthrough achieved in breaking the seed dormancy and development of nursery and planting techniques of the species. He informed that HFRI has established field demonstration plot at Tabo and distributed *Juniperus polycarpos* seedlings in Leh. He was of the opinion that plantation of Juniper in cold desert region will immensely help in afforestation drive.

Dr. R.K. Verma, Director (Link Officer), appreciated all the Resources Person for highlighting various important issues of cold deserts. He was of the opinion that intensive research efforts are required towards conservation and restoration of vegetation in the cold desert region. He congratulated Head Extension, Officers and Staff of the division for successful organization of program under Bharat ka Amrut Mahotsav.

The programme was ended with the formal vote of thanks by Dr. Ashwani Tapwal.

Glimpses of the Programme













