

PROCEEDINGS OF THE INSTITUTE LEVEL MONTHLY RESEARCH SEMINAR HELD ON 29.01.2021

Monthly Research Seminar on the title “**Agroforestry in Trans Himalayan Cold Deserts: Diversity, Forestry Interventions and Livelihood Security**” under the issue “**Managing forests and forest products for livelihood support and economic growth**” was organized on **29th January, 2021** in the Conference Hall of Himalayan Forest Research Institute, Shimla. The scientists, officers, technical staff and researchers of the institute attended the seminar. **Dr. Rajesh Sharma, Group Coordinator Research** started the proceedings with welcome of the Director, HODs, Scientists and Research staff present during the seminar. Thereafter, he requested **Dr. S. S. Samant, Director**, Himalayan Forest Research Institute (HFRI) to chair the proceedings of this research seminar and **Sh. Pitamber Singh Negi, Scientist- D** to make a presentation on the given topic.

Sh. Pitamber Singh Negi, Scientist- D made a detailed presentation on the above topic and highlighted importance of Agroforestry in Trans Himalayan Cold Deserts. During the presentations, he talked on various aspects of Agroforestry viz., role of agroforestry in reducing pressure on natural forest in fulfilling the requirements of timber, fodder, fuel wood and NTFPs, Agroforestry policy and Govt of India’s initiatives in promoting Agroforestry in the country. He also talked on diversity of agroforestry systems in India as well as in Cold desert areas of Kinnaur, Lahaul & Spiti in Himachal Pradesh and Union Territory of Ladakh along with various forestry interventions to be carried out in Trans Himalayan Cold Deserts for the benefit of local communities and their livelihood security. He also talked on research works carried out on various aspects of Agroforestry in the past at national and regional level along with the future agenda/research needs. The presentation was concluded by emphasizing upon the fact that research on various aspects of agroforestry should be initiated/carried out in future in Trans Himalayan Cold deserts. During the discussion, **Sh. Jagdish Singh**, Scientist-F suggested that agroforestry principals should be also incorporated in the presentation for the benefit of researchers. **Dr. Sandeep Sharma, Scientist-G**, raised query regarding whether raising of apple with agriculture crops falls under Agri-Horticulture system. In response, **Sh. P. S. Negi** informed that raising of apple along with Agri crops certainly falls under Agri-horticulture model of Agroforestry.

The Chairman **Dr. S. S. Samant, Director** thanked the speaker for making nice and elaborative presentation on various aspects of agroforestry in Trans Himalayan Cold Deserts during the seminar.



Outcomes of the Seminars:

- ❖ Agroforestry systems play a significant role not only in generation of additional income of the farming communities, enrichment of soil fertility, improved nutrient recycling and increase in farm productivity, but have tremendous potential in mitigation of climate change effects through microclimate moderation and conservation of natural resources .
- ❖ Cold desert areas are highly prone to landslides due to avalanches, high wind velocity besides short growing season and availability of less arable lands, productivity of land is very low as compared to other part of the country.
- ❖ Local communities are highly dependent on forest resources which are already very less in those areas. Deforestation and depletion of forest resources have made it essential that new avenues may be explored in cold desert areas through forestry intervention besides traditional forestry.
- ❖ Poplars, Willows and Junipers are the highly preferred species by local communities for meeting their requirement of fodder, small timber, fuel wood etc. Fast growing new clones of Poplars and Willow having superior phenotypic as well as genetic characters and insect-pest resistant should be raised and distributed to the local communities for promotion and strengthening of agroforestry in cold desert areas.
- ❖ Sensitization of local communities through awareness training programmes for adoption of modern agroforestry system is need of the hour for enhancing productivity of agriculture land.
- ❖ Intervention through planting of Wild Apricot, Seabuckthorn, Medicinal plants having high demand in the market will certainly improve livelihood of local communities.

Formulation of Future strategies & Networking:

- ❖ Selection and prioritization of multipurpose tree species, medicinal and aromatic plants and wild edible plants conducive for cold desert areas.
- ❖ Collection, characterization and germplasm conservation of prioritize agroforestry species.
- ❖ Screening and evaluation of prioritize species resilient to xeric conditions of cold desert areas.
- ❖ Development of complete package of practices of prioritized species for their integration in different agroforestry systems.
- ❖ Assessment of carbon sequestration potential of agroforestry systems in cold desert regions for climate change mitigation.
- ❖ Standardization, refinement and dissemination of successful agroforestry based technologies for cold desert areas.
- ❖ Studies on insect- pest diversity, pathogens, microbes and their interactions in agroforestry systems of cold deserts.
- ❖ Studies on structure, biomass and productivity of agroforestry systems of cold deserts.

- ❖ Studies on role of agroforestry in improvement of ecosystems services in cold desert regions.
- ❖ Studies on soil quality parameters for assessing soil health under different agroforestry systems in cold desert region.
- ❖ Studies on role of agroforestry in poverty alleviation, women empowerment and livelihood improvement of farming communities of cold desert areas.
- ❖ Role of RS and GIS applications in identifying and assessing the area under different agroforestry systems in cold regions
- ❖ Collaborative Research Projects can be formulated with other institutions like DRDO, Leh, CAZRI, Leh, UHF, Nauri, IHBT, Palampur and SFD of respective States/Union Territories for strengthening agroforestry research in Cold Desert Areas.
- ❖ Funding from DST, DBT, NABARD, MoEF &CC, Ministry of Tribal Development, H. P. can be explored for execution of research projects on agroforestry

In the end, **Dr. Rajesh Sharma, Group Coordinator Research** thanked the participants for their active involvement in this seminar and also providing the best of their inputs for prioritizing the research needs and areas, identification of the gaps for developing future strategies.

SOME GLIMPSES OF THE SEMINAR






