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## **Foreword**

As the Eleventh Five Year Plan started reverberating and the Institute completed its 18 years of existence we made concerted efforts to review and introspect through extensive consultation with a wide range of stakeholders. And it was through this exercise we came up with VISION-2015 that envisages bringing in interdisciplinary collaborative research up front so that stake holder driven research agenda becomes our guiding principle in all our activities.

Thus the reporting period (2007-08) was to test our ability to respond to this changing paradigm of working as a Developmental Research Institute. And we made it happen through focused action oriented research, institutional collaborations and stakeholder's involvement as key elements



to strengthen our methodological approach and scale up outreach. The Institute has carved its own niche in the International arena too. An impressive foundation has been laid to build a successful future through timely beginning of all identified topical and need based research programmes. It is committed to deliver products that are applicable, benefit all stakeholders and ensure ecological and economic security of the region.

The Institute made considerable advancement in achieving its R&D objectives. Among others, establishment of 'Glacier Study Centre' to study glacier response to climate change; precision monitoring of glacier snouts using Kinematic GPS survey; strengthening of permanent GPS network by establishing three new stations at Srinagar -Garhwal (Uttarakhand), Kullu (Himachal Pradesh), and Nainital (Uttarakhand); establishment of participatory training and action research centre at high altitude village Triyuginarayan; designing and establishment of models for Integrated Fish Farming in hills, and successful completion of several R&D activities initiated during 10<sup>th</sup> plan period, were the notable achievements of the year.

Organization of on-site training programmes, orientation courses and exposure visits on environment-friendly rural technologies, biodiversity conservation, natural resource management, and disaster management remained major focus for improving Institute's outreach. Further, strengthening of location specific R&D activities in nine states of Indian Himalayan Region through Integrated Eco-development Research Programme (IERP) and ensuring synergy of IERP projects with Institute's thematic thrusts and regional priorities also deserve special mention.

The Institute seeks to sustain unique value of its R&D contribution through induction and retention of high quality research, technical and scientific staff along with the infrastructure and service facilities that are compatible with international standards. The apex bodies of the Institute provided enormous support in achieving all these. The Institute thanks all those who contributed in this direction.

As the Director of this Institute, this would be my last report. During my stay in the Institute for over 18 years and as the Director for the past five years I thoroughly enjoyed working with all my colleagues, distinguished Chairpersons and members of the Society, Governing Body and Scientific Advisory Committee and, of course, the officers of the Ministry of Environment and Forests, Government of India. I take this opportunity to thank all those who helped me to build this Institute through their critique and invaluable inputs.

(Uppeandra Dhar) Director



## Major Achivements (2007-08)

- 1. Geohydrological research on springs of western Himalaya revealed that the broadleaf forests, moderately sloping terraces with deep soil and phyllitic-quartzite rocks in the recharge zone are conducive for improved spring water yield.
- 2. Glacier Study Centre was established as a unit of GBPIHED to study glacier response to climate change. Precise monitoring of Glacier snout using Kinematic GPS survey was carried out in Gangotri glacier and Milam glacier valleys for the first time with the help of this Centre.
- 3. Installation of three new permanent GPS stations at Srinagar (Garhwal), Kullu (Himanchal Pradesh) and Nainital (Uttarakhand) has been done as part of National GPS network of MoES, Govt. of India.
- 4. Establishment of participatory training and action research centre at high altitude village Triyuginarayan (2200 m asl), Garhwal Himalaya on land provided by the village community for demonstration, skill development and capacity building of local communities and other stakeholders in the area.
- 5. Successful completion of: (i) social and environment impact assessment of river rafting and camping on Ganga; (ii) activity on Biosresource Inventory of the Himalaya including inventory of (a) temperate plant families (50); (b) Orchids of IHR (886 spp; 152 genera); (c) medicinal plants of Himachal Pradesh (626 spp; 47% endemics); and (d) avifauna of west (482 spp.) and North East Himalaya (770 spp.).
- 6. Promoted outreach through conservation education programme in schools: (i) important training on biodiversity conservation; (ii) strengthened school conservation models; and (iii) generated datasets on weather and biodiversity.
- 7. Generated datasets on floristic diversity for the Kais, Khohkan and Manali Wildlife Sanctuaries and Lahaul valley of the proposed Cold Desert Biosphere Reserve in Himachal Pradesh.
- 8. Establishment of a sacred forest with people's participation at Kolidhaik village of Champawat district (Uttarakhand) for eco-restoration and biodiversity conservation.
- 9. Successful mass scale in-vitro propagation of genetically uniform 'maggar' bamboo plants was carried out.
- 10. Established 3 models for Integrated Fish Farming (IFF) in Kumaun Himalaya (1100-1600 m amsl), which resulted in an annual net gain of 3-4 times of the investment made by the beneficiary families.
- 11. Imparted 3 days training programmes (24) to 576 males and 384 females through Rural Technology Centre of the Institute.
- 12. Strengthening and continuation of location specific R & D activities in 9 states of Indian Himalayan region under IERP program.