

Interdisciplinary- Multidisciplinary and coordination among Institutions and Long-term monitoring need to boost up to improve quality of research in Himalaya

A two-days' workshop on "**Mountain Specific Research in the Context of Himalaya**" was held at Indian National Science Academy (INSA), New Delhi on 19-20 November, 2013 that was attended by over 70 eminent scholars of various subjects of the country deliberated upon various issues relating to objectives of the workshop across its four Panel Discussions and two parallel Sessions. The workshop with an objective to strengthen the research in Indian Himalayan Region was jointly organized by INSA, International Integrated Mountain Development (ICIMOD), GBP Institute for Himalayan Environment and Development (GBPIHED).

Inaugurating the workshop chief guest of the function Shri S.S. Garbyal, Additional Director General Forest, Ministry of Environment & Forest mentioned that this subject is close to his heart as he belongs to a remote part of the Himalayan mountains. He was concerned about the increasing influence of anthropogenic factors in the Himalayan region that is creating imbalance in the natural harmony of the region. In the inaugural ceremony guest of honour Prof. Furquan Qamar, VC, Central University (H.P.); Prof. V.K. Jain, V.C. Doon University and Prof. Krishan Lal President INSA made their remarks and extended full cooperation to this cause. Prof. Krishan Lal briefed about the activities of INSA at this occasion.

Delivering the key note at the Inaugural Session the co-coordinator of the workshop Prof. S.P. Singh, Former-VC, HNB Garhwal University, Srinagar and Chair of Excellence at Forest Research Institute, Dehradun deliberated upon the need of the workshop. He revisited the historical progression of ecological research in the Himalayan mountains and pointed out that in the past despite of meager funding support and facilities a sound beginning was made by a number of committed people across the region those belonged to Universities and other Institutions and made a significant impact among the world academia. However, of late it is being felt that the culture of hard research and field work in the Himalayan mountains is weakening despite of modern tools, techniques and infrastructure facilities. Many research projects are not able to attract sincere researchers. There could be several reasons behind this

disinterest of the research community at large, and young generation of researchers in particular. For example: (i) whether we lack in scientific capacity and inculcating scientific temper among our researchers; (ii) whether infrastructure and instrumentation facilities are inadequate; (iii) whether incentives for young researchers is an issue; (iv) whether funding for mountain research as compared to other sectors needs a boost; (v) whether organizational set up and policies need to be reoriented, etc. The immediate fall back of this situation is felt while formulating policies and programmes for sustainable development and environmental conservation of the Himalaya. Dr. David Molden, Director General, ICIMOD, Nepal in his Key Note address during the introductory session presented a Comprehensive Assessment of the research activities being carried out in the Himalayan mountains to bring out meaningful outcome to be utilized by the programmes of policies relating to the Himalayan region.

During this workshop in the three sessions and four panel discussion that started with a key note lecture by a leading personality of the subject and was followed by panel discussion by identified key subject experts. In the Introductory session four lead lectures were delivered by Dr. E. Sharma, Director Programme and Operations-ICIMOD, Dr. V.P. Dimri, Dr. T .S. Papola, CHair CHEA and Mr. B.M.S. Rathore. Dr. Sharma gave few successful examples of ICIMOD, Nepal and Dr. Dimri highlighted the need for field-based data generation and proper synthesis based forecast in the field of geo-hazards such as that happened in Kedarnath (Uttarakhand) in June 2013. Dr. Papola stressed upon the socio-economic angle of the research efforts. Mr. Rathore stressed upon science-policy-people connect for desirable outcome and **Landscape Yatras** is one of the approach to further strengthen this connect.

On the second day a special session for INSA Fellows consisting of Prof. H.Y. Mohanram; Prof. J.S. Singh; Prof. P.S. Ramakrishnana, Dr. R.S. Tripathi, Dr. H.Y. Mohanram, Dr. L.M.S. Palni, Dr. R.R. Rao coordinated by Dr. S.P. Singh dwelt upon ensuring their contribution to foster quality research in the Himalayan mountains.

Dr. David Molden (DG, ICIMOD), R.S. Tolia (ex-Chief Secretary, Govt. of Uttarakhand), Dr. G.V. Subrahmanyam, MoEF; Dr. R.D. Singh, Director, NIH Roorkee;

Mr. P.P. Bhojvaid, Director, FRI, Dehradun; Dr. P.P. Dhyani, Director-GBPIHED (Convener of the Workshop); and many other scientists and academicians dwelt upon several aspects of the workshop and felt a need to strengthen both interdisciplinary and multidisciplinary efforts to bring a change in quality of research and incentive to revive field research culture in the Himalayan mountains where conditions for working are inhospitable. A strong need was felt to establish **Long-Term Monitoring Sites** across the Himalayan mountains considering various research protocols useful to generate meta-data and bring out suitable strategies. The other participants included Dr. G.S. Rawat, ICIMOD; Dr. S.K. Mishra, DST; Prof. A.S. Raghubanshi, BHU, Varanasi; Prof. A.R. Nautiyal, Garhwal University; Dr. HC Pokhariyal, Delhi University; Dr. S.K. Vats, IHBT, Palampur; Dr. S.C. Garkoti, Jawahar Lal Nehru University (JNU); Dr. Raghu Saxena, Earthwatch Institute; Dr. S.K. Nandi and R.S. Rawal (GBPIHED), Almora Dr. Pushkin Phartiyal, Executive Director CHEA, Dr. Binita Phartiyal, Scientist- BSIP and others intensively deliberated upon the issues that are affecting the quality of research in the Himalaya and suggested approaches and measures to improve the situation. In the Way-Forward Session chaired by Mr. BMS rathore, Joint Secretary , MoEF stressed upon the human face and more participatory research including various stakeholders across the society. Dr. Dhyani (Director, GBPIHED) at the end of the workshop promised that the workshop recommendations will be followed by his Institute through extensive collaboration and effective networking. At the end of the workshop Organizing Secretary of the Workshop Mr. Kireet Kumar, Scientist-GBPIHED proposed the vote of thanks. This workshop was attended by over 70 persons across leading organizations of the country those are engaged in active research in the mountains.