



## PROCEEDINGS OF RESEARCH ADVISORY GROUP MEETING OF HIMALAYAN FOREST RESEARCH INSTITUTE (HFRI), HELD ON 17.09.2024

The XXV<sup>th</sup> Research Advisory Meeting (RAG) of Himalayan Forest Research Institute (HFRI), Shimla was organised on 17<sup>th</sup> Sept, 2024 in hybrid mode (off-line/ on-line). At the outset **Ms. Savita Kumari Banyal, Chief Technical Officer** welcomed all RAG members and apprised about genesis and objectives of RAG meeting. She also apprised the members that **Dr. Sandeep Sharma, Director (In-Charge)**, ICFRE-HFRI will chair this RAG meeting. In the inaugural session, after the brief round of introduction, the chairman extended warm welcome to **Dr. P. S. Rawat, ADG (RP)**, ICFRE and all the distinguished RAG members present physically and those who were connected virtually. After that, he highlighted the importance of RAG meeting and said that suggestions from the expert members provide right shape to Research Proposals by making them scientifically worthwhile and more useful to the end users. In light of this, the chairman requested the RAG members to evaluate the new project critically and put forth their valuable comments for making desirable changes/ modifications for further improvement and fine tuning of the new research proposals. Further, he told that six new project proposals under various themes are to be proposed before the RAG during this meeting. In addition to this, he also explained about evaluation criteria and informed that projects scoring 80 will be considered for further submission to Research Policy Committee (RPC) at the ICFRE.

Thereafter, **Dr. R K. Verma, Scientist-G, ICFRE-HFRI** made a concise presentation about the Institute, focussing mainly on the mandate, organisation structure and current Research and Development (R&D) activities of HFRI. He also provided succinct information about salient achievements and technologies developed by the institute.

Subsequently, Director In-charge and Chairman of the RAG invited **Dr. P. S. Rawat, ADG (RP)** for the opening remarks. In the beginning, he cordially welcomed all the members and said that ICFRE select the Research Projects on the basis of recommendations of RAG meetings held at institute level. He emphasised upon the meticulous review of the new proposals so as to meet the real requirements of applied research in forestry sector. He proposed that the Project Investigators (PI) should be very particular about the objectives, research gaps, statistical design and budget proposed in the new research proposals.

### **Technical session-I (New Research Proposals):**

In the very beginning of this session, the chairman invited all scientists to present the new research proposals within the stipulated timeframe and also requested all the RAG members to give their valuable suggestions/inputs for further improvement of research proposals. In this session, total Six (06) New Research Proposals were presented by Dr. Pawan Kumar, Scientist-F; Sh. Pitamber Singh Negi, Scientist-D; Dr. Swaran Lata, Scientist-D; Dr. Mohd. Ibrahim, Scientist-E; and Dr. Balkrishna Tiwari, Scientist-C. After each presentation, detailed and thorough discussions were held on different aspects of that project. The project wise Review is compiled as below:-

#### **Project 1: “Monitoring the current status of insect pest dynamics attacking Poplars in cold deserts of Indian Himalaya and develop effective management practices against serious insect pests”.**

**Dr. Pawan Kumar, Scientist- F and P.I.** of the project gave a brief presentation on the project and explained in detail about objectives, methodology, annual action plan, budget and expected outcome of the project. After the presentation, discussions were held and queries were raised by RAG members pertaining to different aspects of project.

**Dr. S. P. Bhardwaj, (Retd.) Ex-Dean College of Forestry, UHF, Nauni** suggested to change the title of the project from Indian Himalaya to North West Himalaya. He also suggested to include incidences of mites, defoliators, beetles etc. in the study. He emphasized that objective wise approach should be adopted to fulfill the objectives. He also suggested that there is no need of taxonomic studies because a lot of work has already been done in the past. In the reply, P.I. said that all the relevant suggestions will be incorporated in the final proposal.

**Dr. Avtar Kaur Sidhu, Scientist-F, Officer Incharge, ZSI-High Altitude Regional Center, Solan** pointed out that before engaging Scientists from other organizations, proper permission should be taken from the Competent Authority. In response to this, **Dr. P S Rawat , ADG (RP)** directed The Director and the PI to write letter under Nirantar to ZSI. In the reply, P.I. said that letters have been sent already regarding this but till date no response has been received and if no response will be received then **Dr. P.C. Patahania, Scientist-E, ZSI-HARC, Solan, H.P.** will be dropped as Co- Principal Investigator in the project while preparing the final proposal.

**Dr. Kamal Kishor Sood, Prof. Silviculture and Agroforestry Dept., SKUAST, Jammu** suggested to include the population of insect pests to study the dynamics and take help of Statistician. In reply, P.I. said that help of Statistician will be taken and suggestion will be incorporated in the final proposal.

**Dr. P S Rawat, ADG (RP)** said that there is no need to quantify the number of organizations etc. in the output of project. In reply, P.I. said that suggestion will be incorporated in the final proposal.

**Dr. C L Thakur, Dean, College of Forestry, University of Horticulture and Forestry, Nauni, Solan** suggested for the use of bio-pesticides for effective management practices against serious insect pests. In reply, P.I. said that suggestion will be incorporated in the final proposal.

**Dr. Suresh Attri, Joint Member Secretary, HIMCOSTE, Shimla** suggested Integrated Pest Management strategy for Poplar species to ensure resilience. He also said that project should recommend climate change related Integrated Pest Management strategy for Poplar species. In the reply, P.I. said that suggestion will be incorporated in the final proposal.

**Dr. Dharam Pal Walia, Head and Principal Scientist ICAR- I.A.R.I.,** suggested to publish the findings of the previous completed projects related to IPM. In the reply, P.I. said that the findings of the previous completed projects related to IPM will be published soon.

In the end, RAG members recommended this project for submission to RPC after suggested modifications.

## **Project 2: “Ecological assessment, mapping, restoration and development of value-added products from *Prunus mira* Koehne (Wild peach/ Behmi) in Himachal Pradesh”**

**Dr. Swaran Lata, Scientist D and P.I.** of the project gave a brief presentation on the project and explained in detail about need of the proposal, literature reviewed, objectives, methodology, action plan, budget and anticipated output of the project. After the presentation, discussions were held and queries were raised by RAG members pertaining to different aspects of project:-

**Smt. Deep Shikha, IFS, ICFRE-HFRI** enquired about follow up plan for raising Quality Planting Material( QPM) in the project. In the reply, P.I. said that this will be covered in the second phase as new project. Smt. Deep Shikha raised the query about value addition in four years project period and is there any road map for the same. **Dr. Sushil Kumar Kapta, IFS APCCF-Finance (Retd.), Himachal Pradesh State Forest Department** asked about availability of value added products are in the market or not. He also suggested to reduce the objectives. **Dr. C L Thakur** raised the query about commercialization of value added products and need of their certification which in turn a very long process. In the reply, P.I. said that value addition part will be covered by Co-Principal Investigator, Dr. Sarla Shashni, Scientist E, GBP-NIHE HRC.

**Dr. D P Sharma** asked about the criteria to be followed for raising Quality Planting Material (QPM). In the reply, P.I. said that nursery growth parameters will be studied for raising Quality Planting Material (QPM).

**Dr. Lal Singh, Director, Himalayan Research Group, Shimla** suggested to identify superior trees/plus trees for raising QPM. In the reply, P.I. said that it will be taken care of while raising quality planting material (QPM).

**Dr. Mohar Singh Thakur, Principal Scientist & Head, ICAR-NBPGR**, suggested that first fix benchmark criteria for QPM like TSS etc. In the reply, P.I. said that it will be taken care of during submission of the final project proposal. She also said that this portion will be covered by Co-Principal Investigator, Dr. Sarla Shashni, Scientist E, GBP-NIHE HRC.

**Dr. Suresh Attri** suggested that focus on a particular topic out of various topics mentioned in the project title. In the reply, P.I. said that it will be taken care of during submission of the final project proposal.

**Dr. P S Rawat**, raised the query that why there is need of restoration in the project title. In the reply, P.I. said that there is anthropogenic pressure that is why there is need for the restoration. ADG (RP) made observation about the duplication of activities between partner organizations. He also pointed out that objective should match with the title of the project. In the reply, P.I. said that it will be taken care of during submission of the final project proposal.

**Dr. S. P. Bhardwaj** asked that how much area of the crop is in H.P. and is there any report available for the same. In the reply, P.I. said that there is no report available for the same.

In the end, RAG agreed to recommend this project for submission to RPC after suitable modifications.

### **Project 3: “Survey and Evaluation of Seed Sources of *Oroxylum indicum* (L.) Kurz for Raising Quality Planting Stock and Establishment of Germplasm Bank for Conservation in Himachal Pradesh”**

**Sh. P. S. Negi, Scientist-D and P.I.** of the project gave a brief presentation on the project entitled and explained in detail about objectives, methodology, action plan, budget and predicted results of the project. After the presentation, discussions were held and queries were raised by RAG members pertaining to different aspects of project:-

**Dr. Suresh Attri** raised the query about the ecological relevance of the species and told that it is not in critically endangered category. In the reply, P.I. said that seeds of this species are of social value in Kinnaur particularly in festivals.

**Dr. D. P. Walia** suggested incorporating the common name of the species in the title so as to make easy understanding about the species by the common man. **He** also raised the query about commercial importance of species and whether the pharmaceutical companies have been contacted for knowing the information about the medicinal properties or not while preparing the project proposal. In the reply, P.I. said that seeds of this species are of social value in Kinnaur particularly in festivals and pharmaceutical companies have not been contacted till now.

**Sh. R. L. Sanga, IFS, ACCF, Research & Training Wing, Himachal Pradesh Forest Academy** made the observation that plants of this species are being raised in forest nursery, Sundernagar. He suggested the P.I to visit that forest nursery. **Dr. S. P. Bhardwaj** suggested to reduce the objectives. **Sh. B M Sharma** highlighted the importance of the species in Jammu region and cultural use of this species in cold desert especially Ladakh.

**Dr. Harinder Singh Banyal, Chairman, Department of Bioscience, Himachal Pradesh University** asked that how conservation of this species will improve the biodiversity conservation. In the reply, P.I. said that this species is in very less numbers so its conservation will improve biodiversity conservation.

**Dr. P S Rawat, ADG (RP)** told that this plant is highly important for pharmaceutical companies. He made the observation that budget shown in the project is very high and suggested to reduce the budget. In the reply, P.I. said that it will be taken care of during submission of the final project proposal.

In the end, RAG recommended this project for submission to RPC after suitable modifications.

#### **Project 4: “Augmentation of Fodder Demand of Cold Desert Region of Himalaya (Ladakh) Through Genetic Improvement and Development of Silvi-Pastoral System”**

**Dr. Mohd Ibrahim, Scientist-E and P.I.** of the project gave a brief presentation on the project and explained in detail about objectives, methodology, time schedule and budget. After the presentation, discussions were held and queries were raised by RAG members pertaining to different aspects of project:-

**Dr. C L Thakur** suggested to replace the word “demand” with “supply” in the project title. He also suggested to lower down the budget and restrict only to two to three species.

**Dr. P S Rawat, ADG (RP)** made the observation that budget shown in the project is very high and suggested to reduce the budget.

**Dr. S. P. Bhardwaj** highlighted that inclusion of xerophytic and mesophytic species will make project more important.

**Sh. B. M. Sharma, IFS** Addl. Chief Conservator of Forest and Chief Wildlife Warden Ladakh Forest Department highlighted that project tenure is very long and suggested to reduce the time. He also suggested that restrict only to annuals and biennials. He also made the observation that family Poaceae is missing in the project and suggested to include that. He also apprised that fencing as mentioned in the project is not recommended.

**Dr. D. P. Walia** told that ICFRE-HFRI has done a lot of work in Salix species in H.P. He suggested to include the previous work and told that selected improved clones can be included. In the reply, P.I. said that it will be taken care of during submission of the final project proposal.

In the concluding part, The Director, ICFRE-HFRI, Shimla thanked all the RAG members for their suggestions/comments on the proposed project and directed the P.I. to incorporate all the suggestions/comments in the final project proposal.

### **Project 5: “Distribution mapping, molecular characterization and drought tolerance assessment of Salix species in the cold desert regions of India”**

**Dr. Balkrishna Tiwari, Scientist-C and P.I.** of the project gave a brief presentation on the project and explained in detail about Problem statement, literature reviewed, objectives, methodology, action plan, budget and expected outcomes of the project. After the presentation, discussions were held and queries were raised by RAG members pertaining to different aspects of project:-

**Dr. H.S. Banyal** asked that what is the base for bar coding. In the reply, P.I. said that it is very difficult to identify the plants in the field and molecular tools have been identified to identify the plants.

**Dr. S. P. Bhardwaj** suggested to replace entire cold desert of India with Cold desert of North West Himalaya. He also made observation that budget is on higher side and suggested to reduce the same. In the reply, P.I. said that it will be taken care of during submission of the final project proposal.

**Dr. P. S. Rawat, ADG (RP)** suggested replacing entire cold desert of India with Trans-Himalaya. He also made observation that budget is on higher side and suggested to reduce the same. In the reply, P.I. said that it will be taken care of during submission of the final project proposal.

**Dr. D. P. Walia** suggested P.I. to work in collaboration with Dr. Mohd. Ibrahim on the common objectives as mentioned in their projects. In the reply, P.I. said that it will be taken care of during project period.

In the end, RAG recommended this project for submission to RPC after suitable modifications.

## **Project 6: “Assessment of floristic diversity in Sainj Khad Watershed, Shimla, North-Western Himalaya for developing conservation strategies”.**

**Dr. Ranjeet Kumar, Scientist-F and P.I.** of the project gave a brief presentation on the project. He explained in detail about the Research Theme, literature reviewed, objectives, research methods, action plan, budget and predicted results/ outputs of the project. After the presentation, discussions were held and queries were raised by RAG members pertaining to different aspects of project:-

**Dr. H.S. Banyal** made the observation that most of the plants have been identified. In the reply, P.I. said that inventory will be prepared in this project.

**Dr. Sushil Kumar Kapta** asked the P.I. that whether he has contacted the forest department and has any idea about the degraded forests. In the reply, P.I. said that data has been taken from FSI. **Dr. Kapta** also suggested for ground truthing of the data. He also suggested that there is no need for plantation work and asked to give recommendations regarding plantation work to the forest department after completion of the project. In the reply, P.I. said that it will be taken care of during project period.

**Dr. S.P. Bhardwaj** suggested to correlate the previous data with the current data. He suggested to clearly mention the percentage of contribution of other institutes in the project. He also suggested to specify the benefits of the plantation. In the reply, P.I. said that it will be taken care of during project period.

**Dr. Suresh Attri** told that inferences can be drawn at local level. He also pointed out that why duplication of work is there as other organizations are doing the same. In the reply, P.I. told that no analysis is there in the previous work.

**Dr. Kamal Kishor Sood** asked about the parameters to be studied in the study. In reply P.I. said that pH, OC etc. will be analysed. **Dr. Sood** also suggested increasing the depth of soil for taking the samples. In reply to this, P.I. said suggestion will be followed during the course of study.

**Dr. C. L. Thakur** pointed out that title is not reflecting the objectives. He also suggested to correlate depth with natural regeneration. In reply to this, P.I. said suggestion will be followed during the course of study.

**Dr. P. S. Rawat, ADG (RP)** suggested to reduce the period of project and budget of the project. In reply to this P.I. said suggestions will be incorporated while preparing the final project proposal.

In the end, RAG recommended this project for submission to RPC after suitable modifications.

## **Technical Session-II (On-going Research Projects Progress):**

The second technical session of the RAG meeting was slated to present the progress of on-going research projects. As **Dr. R. K. Verma**, earlier in his presentation of institute presented the brief progress of all ongoing projects so all the RAG members found progress of ongoing projects satisfactory and recommended them for continuation.

After the completion of technical sessions, **Dr. Sandeep Sharma, Director (In-charge) and Chairman** invited **ADG (RP)** to provide valuable suggestions in connection with different research proposals presented during the RAG meeting. **Dr. P. S. Rawat, ADG (Research and Planning)** expressed regards to revered professors and thanked all members RAG for providing valuable suggestions. He advised the Principal Investigators (PIs) to make suggested structural changes and modify their project proposals as per the comments/inputs from expert members. He asked the PIs to incorporate all the recommendations of RAG members in respective projects before submitting them to RPC at ICFRE, H.Q.

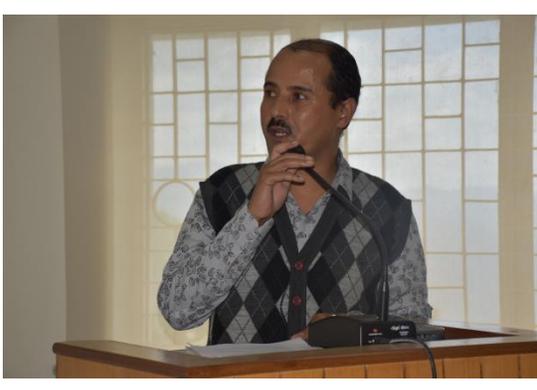
At end, **Dr. Jagdish Singh Sci-G** presented the formal vote of thanks in the end of the Meeting. He extended words of gratitude to **Dr. P.S. Rawat, ADG (RP)**, ICFRE for sparing his valuable time and Honorable RAG Members to evaluate the new research proposals of HFRI. He also thanked **Dr. Sandeep Sharma**, Director (In-Charge) for putting painstaking efforts to organize the RAG meeting. He expressed sincere thanks to, **Prof. (Retd.) S.P. Bhardwaj**, UHF Nauni to evaluate every project very critically, pointing out the major limitations/ lacunas and suggesting valuable comments for refinement. Similarly, he heart fully thanked **Sh. R. L. Sanga, IFS ACCF**, Research & Training Wing, Himachal Pradesh Forest Academy, **Dr. Suresh C. Attri**, Joint Member Secretary, HIMCOSTE, **Dr. Sushil Kumar Kapta, IFS APCCF-Finance (Retd.)**, Himachal Pradesh State Forest Department, **Sh. B. M. Sharma, IFS Addl. Chief Conservator of Forest and Chief Wildlife Warden Ladakh Forest Department**. He also thanked **Dr. Sanjeev Thakur** Retired Dean, College of Forestry, UHF Nauni, **Dr. Harinder Singh Banyal** Chairman, Department of Bioscience, Himachal Pradesh University, **Dr. C.L. Thakur**, Dean, College of Forestry, University of Horticulture and Forestry, Nauni, **Dr. Mohar Singh Thakur**, Principal Scientist & Head, ICAR-NBPGR. He extended heartfelt thanks to **Dr. Dharam Pal Walia**, Head and Principal Scientist ICAR- I.A.R.I., **Dr. D.P. Sharma**, Professor (Retired), UHF Nauni, **Prof. (Dr.) K.K. Sood**, Professor, Silviculture and Agroforestry Deptt. College of Horticulture and Forestry, SKUAST, Jammu, **Dr. Lal Singh**, Director, Himalayan Research Group (HRG), **Dr. Avtar Kaur Sidhu**, Scientist-F, Officer Incharge, ZSI-High Altitude Regional Center, **Sh. Suresh Kumar Jagota**, Proprietor, Katha & Kutch Industry **Sh. Sudhir Sood**, Proprietor Resin and Turpines, Solan, **Sh. Prabhu Dyal Sharma**, Executive Director, Parvtiya Jan Shiksha Evam Vikas

Sangthan, Sirmour, **Dr. Ashwani Tapwal Scientist-F, ICFRE-HFRI**; **Sh. Kuldeep Sharma, IFS, CF, ICFRE-HFRI** and **Dr. Mohd. Ibrahim, Scientist-E, ICFRE-HFRI** and for their valuable suggestions and inputs during the RAG meeting. Last but not least, he thanked all the committee members involved directly or indirectly, for their earnest efforts to organize the meeting in a successful way.

### Some glimpses of RAG Meeting







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