

**MINUTES OF THE XIX RAG MEETING**  
**(13<sup>th</sup> March 2013)**

*ORGANIZED BY*



**FOREST RESEARCH INSTITUTE,**  
**DEHRADUN**

## Minutes of the XIX RAG Meeting (13<sup>th</sup> March 2013)

The meeting of XIX RAG of the Forest Research Institute, Dehradun was held on 13<sup>th</sup> March 2013 in the Board Room of the FRI. The meeting was chaired by **Dr. Ashwini Kumar, PCCF, UP and co-chaired by Dr. P. P. Bhojvaid, Director, Forest Research Institute.** The meeting was attended by the following members of the RAG-

Sl. No.	Name	Designation
1.	Dr. Ashwini Kumar	PCCF (Research & Training), U. P.
2.	Dr. P. P. Bhojvaid	Director, FRI
3.	Dr. R.K. Luna	CCF(Working plan and Research), Punjab Forest Department
4.	Dr. P.P. Dhyan	Scientist-G, G P Pant Paryavaran Sansthan, Almora
5.	Shri Jagdish Chandra	CF Research, Panchkula, Haryana Forest Department
6.	Shri. S. K. Singh	CCF Research, Haldwani, Uttarakhand Forest Department
7.	Shri. Santosh Kumar	CF, Chandigarh
8.	Shri. Anupam Gupta	CF, SFRI, Kanpur, UP
9.	Prof. N. B. Singh	Director Extension Education, Dr. Y S Parmar University of Horticulture & Forestry, Solan, HP
10.	Dr. Vinod Kumar	Scientist-E, Department of Science & Technology, New Delhi
11.	Dr. Darmendra Verma	DFE, FRI Campus, Dehradun
12.	Shri Vijay Jardhari	Farmer & Convener, Beej Bachhao Andolan, Tehri Garhwal
13.	Shri. Mam Raj	Farmer, Village Thaska, Yamuna Nagar, Haryana
14.	Dr. M. P. Singh	Head, CC & FI Division, FRI
15.	Dr. N.S.K. Harsh	Scientist-G, Forest Pathology Division, FRI
16.	Dr. Santan Barthwal	Scientist-D, G&TP Division, FRI
17.	Dr. Rashmi	Scientist-C, Chemistry Division FRI
18.	Shri. Umesh Kumar	DCF, Extension Division, FRI
19.	Shri. Arun Singh Rawat	Group Coordinator (Research), FRI

The following scientists/officers from FRI were also present in the meeting-

Sl. No.	Name	Designation
1.	Shri. Amit Asthana	Head, Engineering Cell
2.	Smt. Jayshri Ardey Chauhan	Head, Extension Division
3.	Shri. Sashikar Samant	Head, FI Division
4.	Dr. Veena Chandra	Head, Botany Division
5.	Dr. A K Sharma	Head, NWFP Division
6.	Dr. P K Gupta	Head, C & P Division
7.	Dr. M K Gupta	Head, FSL&R Division
8.	Dr. Sadhna Tripathi	Head, Forest Products Division
9.	Dr. Mohd. Yousuf	Head, Entomology Division
10.	Dr. Y.C. Tripathi	Head, Chemistry Division
11.	Dr. Amit Pandey	Head, Pathology Division
12.	Dr. Ashok Kumar	Head, G & TP Division
13.	Shri N. K. Upreti	Scientist –F, RCS/FPD
14.	Dr. P.S. Rawat	Scientist-D, RCS

13.	Shri V.K. Dhawan	Research Officer, Silviculture Division
14.	Dr. Rakesh Kumar	Scientist-C, Chemistry Division

Principal Investigatorss of the new project proposals and rolling plans of ongoing project were also present in the meeting

Dr. P.P. Bhojvaid, Director, FRI, welcomed the members of RAG. He requested Dr. Ashwini Kumar, PCCF (Research & Training), U P Forest Department to chair the meeting.

Total fifteen new project proposals were discussed in the meeting. The project wise recommendations are given in **Annexure-I**. Dr. Y M Dubey's work based on detection of hollowness in standing trees using ultrasonic waves was also presented in the meeting for information of the members.

Rolling research plans of nineteen ongoing projects were also displayed in the meeting and discussed in the afternoon session. All the rolling plans were approved for submission in forthcoming RPC meeting. The list of rolling plans is given in **Annexure-II**.

In the afternoon session, Dr. P P Bhojvaid, Director, FRI requested the outside members to express their view pertaining to their forestry research needs. The following points emerged out during addresses by different members-

- FRI should take a lead and co-ordinate the research among SFD's and universities
- Resources should be efficiently utilized for applied research
- Intimation about conferences/workshop/symposia may be made well in advance.
- Land for experiment to be made available to FRI by SFD's
- Species composition under the experiments should be relooked.
- Fast growing diseases free species with enhanced productivity to be developed.
- There should be more focus on agro forestry.
- The State Forest Departments should make funds available to FRI under CAMPA for carrying out research by FRI.
- More area to be covered under trees-outside forests.
- Land reclamation in Punjab should be undertaken.
- Know how should be transferred to overcome Shisham/Kikar mortality.
- More studies should be focused on fodder/fuel species.
- Volume table of species in Chandigarh may be provided.
- Studies on hollowness of tree in Chandigarh may be undertaken.
- Technically sound personnel should be made available to SFD's
- Large projects should be undertaken rather than small projects.

Dr. Bhojvaid also requested the officers of State forest departments to provide/arrange suitable land in their States for FRI for laying trials.

The Director, FRI, concluded the meeting with vote of thanks and the assurance that suggestions received from the members of RAG will be included in formulation and finalization of new projects for presenting before RPC.

**ANNEXURE-I**

**RECOMMENDATION OF 19<sup>th</sup> RAG IN RESPECT OF NEW  
PROJECT PROPOSALS**

<b>S.N.</b>	<b>Title of the project</b>	<b>Name of the PI</b>	<b>Comments of RAG members about the proposal</b>
1.	Ethnomycological studies in Garhwal Himalaya for edible and medicinally important mushrooms	Dr. Ashwani Tapwal, Scientist – C, Pathology Division	<ul style="list-style-type: none"><li>• Objectives of the project to be relooked by a committee.</li><li>• More literature survey should be carried out.</li><li>• Revise the project considering the development of cultivation/conservation techniques of important mushrooms along with survey.</li><li>• Number and name of the species to be given.</li></ul>
2.	Production of reducing sugars through pre-treatment of lignocellulosic biomass for bioethanol	Dr. P.K.Gupta, Scientist – F, C & P Division	Recommended for approval.
3.	Strength evaluation of structural bamboo	Shri. Rajesh Bhandari, Scientist-E, TE Discipline	Recommended for approval with remarks that evaluation should be done on standard moisture content of green and dry bamboos to find out the optimal moisture content for construction use.
4.	Physical, mechanical properties and fibre morphology of some bamboo species.	Dr. Y M Dubey, Scientist-C, Forest Products Division	Recommended for approval with the remarks that readily available commercially important species should be chosen.
5.	Improvement and innovations in Solar timber dryer design and trial with Thermal Energy Storage System (TESS).	Shri Shailendra Kumar, RO, Forest Products Division	Recommended for approval.
6.	Quantification and conservation of <i>Indopiptadenia oudhensis</i> <i>Ilex pseudo-odorata</i> . <i>Trachycarpus takil</i> , <i>Cochlospermum religiosum</i> , <i>Turpenia cochinchinensis</i> Rare/Endangered trees of Uttarakhand.	Dr. Ranjana Negi, Scientist-B, Botany Division	<ul style="list-style-type: none"><li>• Re-submit the project considering selection of species, methodology and location of species in their native forest areas.</li><li>• To include phonological studies, conservation strategy and seed technology.</li></ul>
7.	Propagation and conservation of	Dr. Nav Bahar,	<ul style="list-style-type: none"><li>• Project to be re-casted considering</li></ul>

	vulnerable/threatened species of Uttarakhand	Scientist – B, Silviculture Division	<p>the species selection.</p> <ul style="list-style-type: none"> <li>• Those species should be undertaken which has problem in germination.</li> <li>• Species of UP also to be taken</li> </ul>
8.	Study on weeds and their management in FRI campus	Shri. A K Acharya, DCF, ASE, Silviculture Division	<p>Re-cast the project considering following remark:</p> <ul style="list-style-type: none"> <li>• More attention to be given on rehabilitation rather than new techniques.</li> <li>• Treatments should be based on use of different chemicals to control weeds in place of up-rooting.</li> </ul>
9.	Seasonal characteristics and climate effect to black carbon aerosols over the urban areas of Uttarakhand	Dr. A. K. Tripathi, Registrar and Scientist –F, FRI DU	<p>Re-cast the project on following line:-</p> <ul style="list-style-type: none"> <li>• Haldwani area should be studied instead of Haridwar.</li> <li>• Compare study in forest and non-forest areas.</li> </ul>
10.	Genetic diversity and adaptability through morphological and molecular markers in <i>Dalbergia sissoo</i> Roxb.	Dr. Ashok Kumar, Scientist-E, G&TP Division	<p>Recommended for approval with remarks that more area should be taken up for the study.</p> <p>Project to be submitted for funding to DBT.</p>
11.	Clonal propagation of newly developed superior hybrids/genotypes of Eucalypts and their deployment in the field	Ms. Praveen, Scientist – C, G&TP Division	<p>Project to be submitted for funding to DBT.</p>
12.	Field evaluation of recombinants emanating from F1 and F2 generations of <i>Corymbia</i> (Syn. <i>Eucalyptus</i> ) hybrid <i>C. citrodora</i> Hook. x <i>C. torelliana</i> F.v. Muell for high productivity (follow up project)	Dr. Ajay Thakur, Scientist – D, Botany Division	<p>Discuss the project with DBT and other similar organizations and then send it to suitable organization for approval and funding.</p>
13.	Micro-propagation of plus clumps of <i>Bambusa nutans</i> Wall. Ex Munro and <i>Dendrocalamus hamiltonii</i> Nees et Arn. Ex Munro and establishment of multilocational trials	Shri. J M S Chauhan, Scientist-C, G & TP Division	<p>Recommended with remark that more literature to be consulted so that duplicity of work may be avoided.</p>
14.	Cytogenetic investigations of selected forest tree species	Dr. Rama Kant, Scientist-B, G & TP Division	<p>Recommended for approval with following remarks:</p> <ul style="list-style-type: none"> <li>• Ploidy level of study is required.</li> </ul>

			<ul style="list-style-type: none"> <li>• Include the other spp. for which similar work has not been done.</li> </ul>
15.	Effect of heavy metals on morpho-biochemical traits and metal accumulation in some forest tree species	Dr. Meena Bakshi, Scientist-D, Botany Division	<p>Re-write the project by considering the following remarks:</p> <p>Study should be carried out in deleterious/polluted sites in the field in place of lab.</p>

**ANNEXURE-II**

**LIST OF ONGOING PROJECTS WITH ROLLING PLAN**

<b>SI No</b>	<b>Title of the project</b>	<b>PI, Division</b>	<b>Rolling plan</b>
1	Validation of chemical markers conferring <i>Cylindrocladium</i> leaf and seedling blight resistance in Eucalyptus germplasm	Dr. V.K. Varshney, Chemistry Division.	1 Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period.
2	Development of Category Shades of Natural Dyes of <i>Pinus roxburghii</i> and <i>Mallotus philippensis</i>	Shri Rakesh Kumar, Chemistry Division.	1 Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period.
3	Refining of process for detoxification studies of <i>Jatropha</i> seed oil	Dr. Vineet Kumar, Chemistry Division.	1 Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period.
4	Phytochemical examination of <i>Acacia albida</i> .	Dr. Pradeep Sharma, Chemistry Division.	1 Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period.
5	Survey of insect pests and their control in plantations	Dr. Shamila Kalia, Extension Division. (Now in ICFRE)	1 Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period. Permission for appointment of one FA is also requested within project budget outlay.
6	Bioecology and management of the gall insect in Eucalyptus	Dr. Shamila Kalia, Extension Division. (Now in ICFRE)	The project is proposed to be dropped as the Entomology Division has already taken up work on same field on larger scale in collaboration with Punjab Government. PI Needs time till 31 <sup>st</sup> March 2013 to compile the data and submit the report of the work done so far.
7	Shisham mortality –	Dr. N.S.K. Harsh,	1 Year's extension in project



	Finding solutions for future plantations	Pathology Division.	period. No additional budget is required. Balance amount will be utilized in the extension period. Permission for appointment of one FA is also requested within project budget outlay.
8	Screening of Eucalyptus germplasm for disease resistance against <i>Cylindrocladium</i> leaf and seedling blight.	Dr. Amit Pandey, Pathology Division.	1 Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period.
9	Interaction between <i>Pseudomonas fluorescens</i> and AM Fungus on <i>Dendrocalamus strictus</i>	Dr. Y.P. Singh, Pathology Division.	The project period is 2010 to 2015. The JRF was sanctioned for three years only. Due to acute shortage of regular staff in the Division, services of one JRF/SRF are required for 4 <sup>th</sup> and 5 <sup>th</sup> years also. For this extra budget of Rs. 2.88 Lakh is required.
10.	Studies on the suitability of different combinations of plantation grown species for laminated veneer lumber (LVL).	Shri. D P Khali, Forest Products Division	1 Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period. Permission for appointment of one FA is also requested within project budget outlay.
11.	Refinement in vacuum timber dryer designed by FRI and its performance studies	Shri. N K Upreti, Forest Products Division	The project period is 2012-2014. Due to very late release of budget for Equipment (on 18 <sup>th</sup> Feb 2013), no activity could be performed during 2012-13 except initiation of procurement of equipment in March 2013. Hence project period may kindly be revised to 2012-2015.
12.	Study on the performance of treated timbers (ZiBOC, CCB and CCA) and their natural durability in cooling tower	Dr.Sadhana Tripathi, Forest Products Division	Extension of Project Assistant (@Rs. 8500/- per month) may be given for two years for which Rs. 2.04 lakhs are required. As Rs. 1.59 lakhs are already balance after the first three years, additional 0.45 lakhs may be sanctioned.

13.	Characterization of <i>Pinus roxburghii</i> for resin yield and spiral grain formation in wood using NIR spectroscopic methods and association studies using molecular markers	Dr. Santan Barthwal Scientist D, G & TP Division	Due to non availability of specialized scientific worker, work under the 4 <sup>th</sup> objective (Development of NIR based application methods in relation to spiral grain formation and resin yield in <i>P. roxburghii</i> ) could not be initiated. Hence this objective may be dropped and title of this project may be modified accordingly as “Characterization of <i>Pinus roxburghii</i> for resin yield through association studies using molecular markers”.
14.	Development of DNA-marker based technique for <i>Cedrus deodara</i> for wood/timber forensics	Dr. Santan Barthwal Scientist D, G & TP Division	Two years' extension in project period. Additional budget of Rs. 9.36 Lakh (over project outlay) is also required
15.	Development of macro and micropropagation protocol for <i>Rhododendron arboreum</i> Smith: state tree of Uttarakhand.	Dr. Ajay Thakur, Scientist D, G & TP Division	Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period.
16.	Interspecies hybridization between <i>Eucalyptus pellita</i> and <i>E. urophylla</i> and development of F <sub>1</sub> hybrids (2010-2013).	Ms. Parveen, Scientist-D, G & TP Division	Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period.
17.	Digitization of FRI (Dehradun Herbarium) Herbarium	Dr. Veena Chandra, Scientist-F, Botany Division	Two years' extension in the project period with additional budget of Rs. 25.50 Lakh.
18.	Phytochemical studies on medicinally important <i>Diploknema butyracea</i> (Indian butter tree) seeds	Dr. Rashmi, Scientist-C, Chemistry Division	Year's extension in project period. No additional budget is required. Balance amount will be utilized in the extension period.
19.	Establishment of multilocational clonal trial and study of wood anatomical properties and cellulose content of promising clones of <i>Populus deltoides</i>	Dr. Dinesh Kumar, Scientist-F, Silviculture Division	Six months extension (upto September 2013) with additional budget requirement of Rs. 1.37 Lakh.

