

PROCEEDINGS OF X RESEARCH POLICY COMMITTEE MEETING-2009



11th - 13th February 2009



**Directorate of Research
Indian Council of Forestry Research and Education,
P.O. New Forest, DEHRA DUN – 248006**

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Mandate of the Research Policy Committee (RPC)

- RPC being an apex advisory body at the Council level, will provide policy directions to research, bring in innovation in research and decide investment in high quality forestry research. It will also provide research leadership so as to make ICFRE a model research organization with international leadership in forestry research.
- RPC will finalize the five-year Research Plan of the ICFRE and its Institutes and also review the same on rolling basis.
- RPC will approve Annual Research Plan, Research Projects and Programmes of the ICFRE and its Institutes on the basis of the recommendations of RAGs of the respective Institutes.
- RPC will promote effective coordination of the research work among different Institutes of ICFRE, and will optimize resource utilization.
- RPC will ensure balance among different international, national, regional and state research requirements.
- RPC will consider current and emerging research issues, and keeping these in view, will prioritize research projects and programmes of each Institute.
- RPC will explore and establish synergistic alliance with other agencies engaged in forestry research.
- RPC will also carry out any other function related with forestry research assigned by the Council from time to time.

**X -RESEARCH POLICY COMMITTEE (RPC)
MEETING OF ICFRE**

Date - 11th, 12th and 13th February 2009
Venue - Board Room, ICFRE, Dehradun

11.02.2009

09.30 - 09.40 Introduction by DDG (R)
09.40 - 09.50 Presentation by ADG (RP)
09.50 - 10.00 Remarks by DG, ICFRE
10.00 - 13.30 Presentation by ICFRE Institute Directors and Discussion on

- Ongoing Research Projects (Progress)
- Prioritized New Research Projects

- 1. Himalayan Forest Research Institute, Shimla (4 projects)**
- 2. Institute of Forest Productivity, Ranchi (8 Projects)**
- 3. Tropical Forest Research Institute, Jabalpur (3 Projects)**

13.30 - 14.30

LUNCH

14.30 - 17.30

Presentation and discussion continues-

- 4. Institute of Wood Science & Technology, Bangalore (19 Projects)**

09.00 - 13.30

Presentation by ICFRE Institute Directors and Discussion on

- Ongoing Research Projects (Progress)
- Prioritized New Research Projects

12-02-2009

- 5. Rain Forest Research Institute, Jorhat (14 Projects)**

13.30 - 14.30

LUNCH

14.30 - 17.30

Presentation and discussion continues-

- 6. Forest Research Institute, Dehradun (23+2 AICP Projects)**

13.02.2009

09.00 - 13.30

Presentation by ICFRE Institute Directors and Discussion on

- Ongoing Research Projects (Progress)
- Prioritized New Research Projects

- 7. Institute of Forest Genetics & Tree Breeding, Coimbatore (12 Projects)**

- 8. Arid Forest Research Institute, Jodhpur (5 Projects)**

13.30 - 14.30

LUNCH

14.30 - 15.30

Discussion on status of All India Coordinated Projects

15.30 - 16.30

Discussion on progress of Quinquennial Review of Institutes Centres

16.30 - 17.30

Wrap up and concluding session

Concluding remarks by DG / DDG (R)

**Proceedings of the X Research Policy Committee Meeting
11th, 12th and 13th February 2009 at ICFRE Board Room
Dehradun**

X- RPC Meeting was held in the Board Room of ICFRE Headquarters from 11th February to 13th February 2009 chaired by Shri Jagdish Kishwan, Director General ICFRE. List of participants of the X- RPC is enclosed as **Annexure I**.

Dr G.S Rawat, DDG Research welcomed all the Research Policy Committee (RPC) members and gave a brief introduction about the processing of research projects in the council right from the inception stage of the project in the institute, modifications in the project proposals by the principal investigators as per the suggestions of various stakeholders like SFDs, NGOs, farmers, representatives of the industries and later put for approval of the Research Advisory Groups of respective institutes. He briefed the members about the functions of RPC, concept of rolling plan and apprised the members that new research projects proposals would be presented on Index score basis as per the weighted criteria method adopted by ICFRE.

Dr Sudhanshu Gupta ADG (RP) gave a brief presentation on the weighted criteria method adopted by ICFRE to prioritize the new research projects adopting the Average Index Score Method and explained the same with an example.

DG ICFRE in his opening remarks informed the members about the importance of RPC and its inputs in giving direction to forestry research of ICFRE. He also briefed the members about the utility of forestry research of ICFRE to various stakeholders and common people. He also emphasized the need of environmental services and the requirement of research projects on this theme. DG ICFRE also informed the members about the initiation of obtaining referees' comments on the respective projects from this year. He expressed his disappointment at the reduction in the number of new research project proposals compared to that of last year. He further hoped that reduction in the number of research projects must have improved the quality of research in the institutes.

During presentation of the respective institute, concerned scientists of the institute were available through video conferencing and wherever clarifications were required, same were provided by the scientists.

The decisions of RPC for ongoing research projects are enclosed as **Annexure - II**. The decisions of RPC for new research projects discussed during X- RPC is enclosed as **Annexure - III** and the decisions of RPC on two All India Coordinated Projects (AICP) submitted by Forest Research Institute, Dehradun is enclosed as **Annexure - IV** and the abstract of new research projects along with the budgetary details of **approved projects or projects needing modification as per advice of X RPC** is given as **Annexure -V (Final budgetary figures would come only after projects are revised)**.

All the members gave their valuable suggestions for improvement of the research projects. The house authorized the chairman to approve the projects where amendments were recommended by RPC and further to take final decision as per the RPC recommendations in respect of the amended projects.

Regarding All India Coordinated Projects (AICPs) which were approved in principle in last RPC, the chairman desired that the different components of the AICP may be submitted to the donor agencies as per their requirement and format. Directors of the institutes were requested to pursue the matter for external funding at their level also in consultation with ADG (PF).

Subsequent to presentations as per the programme, ADG (RP) presented the progress of the quinquennial review teams with respect to four Institutes, AFRI, FRI, IFGTB and RFRI and one centre of IWST, FRC Hyderabad, The progress of all the institutes and the centre were found to be as per scheduled timelines except AFRI. DG ICFRE took serious note of sluggishness in completing the quinquennial review by AFRI and expressed that names of the Chairperson of QRT was suggested by the concerned Director; therefore chairman of QRT should be advised by him to co-opt any individual who can be useful in the task of completing the quinquennial review. DG ICFRE further advised the Director AFRI to get quinquennial review completed within two and half months, i.e., by 30.04.2009. DG ICFRE reviewed progress of quinquennial review of RFRI and requested Director RFRI to send the quinquennial report with respect to RFRI by 28th February 2009.

ADG (Edu) appraised the house regarding curriculum developed by ICFRE for guidance and improving the quality of forestry education. In this regard, he informed the house about drafting of MoU for accreditation. DG ICFRE requested all the directors to give their comments and suggestions on the circulated draft MoU by 28th February 2009.

Dr Sudhir Kumar, Scientist E, Entomology Division, FRI, Dehradun gave the presentation on the software developed by him on NIRC (National Insect Reference Collection). Chairman appreciated his work and asked everyone present to send their suggestions for improvement of the software so that it becomes more efficient and user friendly.

Dr Rameswar Dayal, Head Chemistry Division, FRI Dehradun distributed the samples of herbal hair dye, prepared by Chemistry Division as a token of commercialization of the product.

The X RPC meeting ended with vote of thanks by DDG (Extension) Dr Rabindra Kumar.

List of RPC Members

| Sl. No. | Name of Members |
|----------------|---|
| 1. | Shri Jagdish Kishwan, DG, ICFRE |
| 2. | Dr. G. S Rawat Dy Director General (Research) ICFRE |
| 3. | Sh. M.S. Garbyal, DDG(Admin.) ICFRE |
| 4. | Dr Rabindra Kumar, DDG(Extension) ICFRE |
| 5. | Dr S.S Negi, Director, FRI, Dehra dun |
| 6. | Dr. Mohinder Pal, Director, HFRI, Shimla. |
| 7. | Sh. S.C Joshi, Director, IWST, Bangalore. |
| 8. | Dr. Krishna Kumar, Director, IFGTB, Coimbatore. |
| 9. | Dr.N.K. Vasu, Director, RFRI, Jorhat. |
| 10. | Dr. A.K. Mandal, Director, TFRI,Jabalpur |
| 11. | Shri R. Krishnamurthy, Director, IFP, Ranchi. |
| 12. | Dr Ashok Kumar, Group Coordinator(R), AFRI, Jodhpur |
| 13. | Dr. J.K. Rawat,Retired PCCF,Panchkula, Chandigarh,Haryana |
| 14. | Dr. P.C. Chengappa, State Agriculture University,Bangalore |
| 15. | Dr S.K. Dhyani, Director, National Research Centre for Agroforestry (NRCA), Near Pehuj Dam, Gwalior Road, Jhansi – 284 003 (U.P.) |
| 16. | Dr Rajendra Dobhal,Uttaranchal Council of Science and Technology (UCOST), Vasant Vihar, Dehra dun. |
| 17. | Shri G.P. Maithani,Village + PO Badripur,Opp. Asha Nursing Home, Dehradun. |
| 18. | Sh. K. Sankar Krishnan, Director,M/s. Kutty Flush Doors, 1167, Poonamallee High Road, Koyambedu, Chennai – 600 107 |
| 19. | Dr. Sudhanshu Gupta, ADG (Res.& Planning) ICFRE |
| 20. | Shri A.K. Rai, Scientist – F, ICFRE |
| 21. | Mr. Santhil Kumar, DCF, ICFRE |
| 22. | Shri S.S. Jain, Scientist – D, ICFRE |

List of Invitees

OTHER PARTICIPANTS

1. Shri Balbir Singh ADG (M&E), ICFRE
2. Dr Sanjay Srivastava ADG (Admin.), ICFRE
3. Shri Sarvesh Singhal ADG (M&P)
4. ShPankaj Aggarwal ADG (PF) ICFRE
5. Sh. Anurag Bhardwaj DCF ICFRE
6. Dr. Dharandra Verma ADG (EIA), ICFRE
7. Sh. Rakesh Kumar Dogra Assistant Director General (Edu.) ICFRE
8. Sh. Sandeep Sundriyal Assistant Director General (Stat.) ICFRE
9. Dr Renu Singh Head, BCC, ICFRE
10. Sh. T. Gunasekaran Group Coordinatore (R) IFGTB Coimbatore
11. Dr. V. Sivakumar Scientist D IFGTB Coimbatore
12. Dr. A. Nicodemus Scientist IFGTB Coimbatore
13. Dr John Prasanth Jacob Scientist, IFGTB, Coimbatore
14. Dr Mathish NV Scientist, IFGTB, Coimbatore
15. Dr. Praveen H Chauhan Scientist, E AFRI, Jodhpur
16. Dr. G. Singh Head, Forest Ecology Division, AFRI Jodhpur
17. Sh.C.J.S.K.Emmanuel Scientist 'F' AFRI Jodhpur
18. Dr. R Vijendra Rao Scientist, AFRI Jodhpur
19. Shri Suresh Gairola Group Coordinatore (R), IWST, Bangalore
20. Dr. K K Pandey Scientist, IWST, Bangalore
21. Dr RV Rao Scientist, IWST, Bangalore
22. Dr GRS REDdy Scientist FRC Hyderabad
23. Dr. K.S. Kapoor Group Coordinatore (R) & Scientist HFRI Shimla
24. Sh. Manish Kumar RO, RFRI, Jorhat
25. Dr. Rameshwar Das Group Coordinatore (R), IFP, Ranchi
26. Sh. A.S. Rawat Group Coordinatore (R), FRI Dehradun
27. Sh. Vipin Chaudhary Head, Engineering Cell, FRI
28. Sh. V.R.R. Singh Head, Silviculture Division, FRI
29. Sh. Ashish Rawat Head, RSM Division, FRI
30. Dr. Lokho Puni Head, NWFP Division, FRI
31. Dr. (Mrs.) P. Soni Head, Ecology & Environment Division, FRI
32. Dr. A.N. Shukla Head, Pathology Division, FRI, Dehra dun
33. Dr. Sas Biswas Head, Botany Division, FRI, Dehradun
34. Sh. Shailendra Kaushik Chief Librarian, NFLIC, FRI
35. Dr. R. Dayal Head, Chemistry Division, FRI
36. Dr. S.B. Singh Head, FS& LR Division, FRI
37. Dr. H.S Bhandari Head, Forest Entomology Division, FRI
38. Sh. Omkar Singh Head Extension Division FRI
39. Sh. Amit Asthana Head Climate Change FRI
40. Dr. Vimal Kothiyal Head, Forest Products Division, FRI
41. Dr. H.S. Ginwal Head, G&TP Division, FRI

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|------------|-----------------------------|--|
| 42. | Dr. Sanjay Naithani | Head, C&P Division, FRI |
| 43. | Dr. H B Vasistha | Scientist, FRI |
| 44. | Dr. Manisha Thapliyal | Scientist C, Silviculture Division, FRI Dehradun |
| 45. | Dr. Pushpa Borai | NWFP Division FRI |
| 46. | Sh. Rakesh Kumar | Scientist, FRI |
| 47. | Dr. Meena Bakshi | Scientist FRI |
| 48. | Dr. Neelesh Yadav | Scientist B FRI |
| 49. | Shri Rajesh Bhandari | Scientist, FRI |
| 50. | Dr. SPS Rawat | Scientist, FRI |
| 51. | Dr. Ashish Rawat | Scientist, FRI |
| 52. | Dr. Sudhir Singh | Scientist, FRI |
| 53. | Sh. B.K Pandey | Scientist, FRI |
| 54. | Sh. A.K. Pandey | Head, CSFER Allahabad |
| 55. | Sh. Kumud Dubey | Scientist CSFER Allahabad |
| 56. | Dr Abha Srivastava | CSFER, Allahabad |
| 57. | Dr. Rita Dhawan | Scientist F ICFRE |
| 58. | Dr Sushma Mahajan | Scientist E, ICFRE |
| 59. | Shri Jitendra Kumar | Scientist, ICFRE |
| 60. | Dr. B.M Dimri | Scientist, ICFRE |
| 61. | Dr. Devendra Kumar | Research Officer, ICFRE |
| 62. | Dr. S.K Sharma | Scientist, B ICFRE (Rapporteur) |
| 63. | Dr. A.N Singh | Scientist, D ICFRE (Rapporteur) |
| 64. | Dr. V Jeeva | Scientist, D ICFRE (Rapporteur) |
| 65. | Dr. Anita Srivastava | Scientist, D ICFRE (Rapporteur) |
| 66. | Dr. R S Rawat | Research Officer, ICFRE (Rapporteur) |
| 67. | Shri Raman Nautiyal | Scientist, D ICFRE (Rapporteur) |

Annexure-II

ONGOING PROJECTS

(Only those Projects where changes have been requested by institutes)

Himalayan Forest Research Institute, Shimla

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. In Lakh) | Comments of RPC |
|---------|--|--|
| 1. | Survey, Biology and Control of Insect Pests of Important Medicinal Plants in Himachal Pradesh [HFRI-003/06 (FPT-07) PLAN/2005-2010] Name of PI: Dr. Ranjeet Singh | Carry out Chemical analysis of medicinal plants after different treatments. Rs. 1.0 Lac more approved apart from existing budget approved for research / chemical analysis |
| 2. | Evaluation of soil fertility status and nutrient return from the important indigenous agroforestry systems in Himachal Pradesh [HFRI-034/08(AGF-04) PLAN-2006-2001]. Name of PI: Dr. V.P. Panwar | Change the title as: “ Evaluation of soil fertility status and nutrient return from the important indigenous agroforestry tree species in Himachal Pradesh with special reference to Hamirpur district. ” Reduce the budget from Rs. 6.0 Lac to Rs. 4.0 Lac. |
| 3. | Management of Indian Gypsy Moth (<i>Lymantria // bfuscate</i>) in Himachal Pradesh [HFRI/041/06(FPT-09)Plan/2008-2013 Name of PI: Dr. S. Chakrabarti | <ul style="list-style-type: none"> • In the light of report that Indian Gypsy Moth (<i>Lymantria obfuscate</i>) is not present in the Bedni Bugyal , Uttarakhand, therefore, it was agreed not to carryout survey work in this area. • Additional requirement of Rs. 0.75 Lac was approved for the project work |

Institute of Forest Productivity, Ranchi

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|----|---|--|
| 1. | Study on Floral Biology, Fruiting Phenology & Germination behaviour in <i>Schleichera oleosa</i> . Duration: 2.5 years Total Outlay: Rs. 4.98 Lakhs); PI: Dr.Animesh Sinha | Merge the three projects 1, 2 and 3 (listed below) into one project with the title “Studies on Reproductive biology and propagation techniques of <i>Schleichera oleosa</i> Lour (Oken) an oil bearing tree and important <i>lac</i> host plant” with revised project period and budget. |
| 2. | Rooting and Acclimatization of in vitro shoots of <i>Schleichera oleosa</i> Duration: 2.5 years Total Outlay: Rs. 7.75 Lakhs) | Merged |
| 3. | Standardization of macro-propagation techniques of <i>Schleichera oleosa</i> and their clonal fidelity studies Duration: 3 years Total Outlay: Rs. 10.00 Lakhs | Merged |

Tropical Forest Research Institute, Jabalpur

| Sl. No. | Project Title/Name of the PI/Duration/ | Comments of RPC |
|---------|---|---|
| 1. | Study on plant diversity in sal – teak ecotone zone as influenced by ecological and climatic change. P.I.: Dr. A.K. Bhowmik 4 years (2005-2009) | Agreed for one year extension and additional Budget of Rs 45,000/- |
| 2. | Genetic variation for <i>in Vitoro</i> morphogenetic potential of <i>Dalbergia sissoo</i> Roxb. Clones and Evaluation of their field performance P.I.: Dr. Yogeshwar Mishra, 5 year (from 2007 to 2012) | Approved additional amount of Rs 1.80 Lac towards the salary of one technical assistant |
| 3. | Standardization of nursery Technology and evaluation of Various types of planting stocks of <i>Pterocarpus marsupium</i> . P.I.: Vedpal Singh, R.O. 3 years (from July 2006 to March 2009) | Approved one year extension without additional budget |
| 4 | Studies on the seasonal variation in Active chemical constituents of Hadjor, <i>Cissus quadrangularis</i> Linn. P.I.: Dr. Vishakha Kumbhare 3 years (from 2006 to 2009) | Approved extension of one year with additional budget of Rs 1.0 Lac for product development and the provision of IPR patenting. |
| 5 | Evaluation of medicinal plants based agro forestry (Silvi-Medicinal) systems under teak plantations. P.I.: Nanita Berry, Scientist ‘C’ 3 years (2006-09) | Approved one year extension without additional budget |
| 6 | Studies on the Efficacy of toxins of soil actinomycetes against major forest insect pests. P.I.: Dr N. Roychoudhury 3 years (from June 2006 to May 2009) | Approved extension of one year with additional budget of Rs 1.0 Lakhs. Provision of IPR patenting also to be added for any new scientific finding. |

Institute of Wood Science & Technology, Bangalore

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. In Lakh) | Comments of RPC |
|---------|--|---|
| 1. | Ethnobotanical studies of Northern part of Eastern Ghats in Andhra Pradesh (2007-2011) P.I.: Dr. N. Rama Rao Rs. 1.17 lakhs | Change of title from “Ethnobotanical studies of Northern Eastern Ghats in Andhra Pradesh” to “Ethnobotanical studies of Northern Part of Eastern Ghats in Andhra Pradesh” approved. Modification of Objective No. 2 from ‘To study the impact of tribal culture on the vegetation’ to ‘To study the effect of tribal culture on the vegetation’ approved. |
| 2. | Studies on age related durability of plantation grown timbers. (2005-2012) P.I.: Mrs. H.C. Nagaveni Rs. 1.45 lakhs | Approved extension of up to 2012 with modification of project cost from Rs 1.3 Lac to Rs 1.45 Lac. |
| 3. | Studies on the Natural Resistance of Imported Woods against Insects And Decay Fungi in Indian Environment P.I.: Dr.R. Sundararaj, Dr NSK Harsh Dr Sadhana Tripathi 4 years | Approved extension of one year up to 2012 with additional fund of Rs 1.4 Lakhs for FRI and 1.0 Lakh for IWST |
| 4. | Development of Database on Red sanders (<i>Pterocarpus santalinus</i> L.) P.I.: Mr. V. Soundararajan, 2 Years (2008 –10) Rs. 2.00 Lakhs | Approved extension of one year upto 2010 without any additional fund. |
| 5. | Productivity and interaction studies in <i>Acacia</i> hybrid (<i>A.mangium</i> x <i>A.auriculiformis</i>) based agroforestry practices in Karnataka. P.I.: Dr S.Viswanath, Scientist E 5 Years (2004-09) | Modification of objective No. 1 from “Study of growth performance of <i>Acacia</i> hybrid in agroforestry practices under planting configuration” to “Study of growth performance of <i>Acacia</i> hybrid in agroforestry practices under line planting and block planting configurations” approved. |

Rain Forest Research Institute, Jorhat

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. In Lakh) | Comments of RPC |
|---------|--|--|
| 1. | Establishment of GIS laboratory for systematic creation, management and upgradation of GIS based forest-database of North-East India | Approved one JRF for six months |
| 2. | Clonal multiplication of <i>Aquilaria malaccensis</i> through in vitro culture including hardening and out planting. | Approved additional grant of Rs.5,000/- for increase in wages |
| 3. | Development of commercially viable dye products of selected plants of North-East | Approved engagement of one Field Assistant within the allotted budget. |

Forest Research Institute, Dehradun

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. In Lakh) | Comments of RPC |
|---------|--|--|
| 1. | Impact of biotic factors on forest biodiversity with particular reference to specific threatened sites and species of Uttar Pradesh (UP), Uttaranchal and Delhi P.I.: Dr. S. Biswas | Approved the change of Uttarakhand in place of Uttranchal in the Project Title. |
| 2. | Field evaluation of different clones of <i>Dalbergia sissoo</i> growing in Clonal Seed Orchard at Lachhiwala, Dehra Dun for their growth and physiological parameters". P. I. : Dr. Meena Bakshi | Approved One Field Assistant @ Rs. 5000/- per month for six month under the project. |
| 3. | Planting stock improvement: Inter and intraclonal variations in relation to shoot production, rooting and subsequent growth in Vegetative multiplication garden of <i>Dalbergia sissoo</i> . P. I. : Dr. Meena Bakshi | Approved One Field Assistant @ Rs. 5000/- per month for six month under the project. |
| 4. | Development of micropropagation protocol for mass multiplication of medicinal plant <i>Stevia rebaudiana</i> . P.I.: Dr. Sarita Arya | Drop the Project |
| 5. | Field evaluation of tissue culture plants of <i>Eucalyptus</i> hybrid at seven agro-climatic zones. P.I.: Dr. I.D. Arya | Change of PI is allowed |
| 6. | Studies on development of biopesticides from <i>Eucalyptus</i> hybrid. P.I.: Dr. R. Dayal | Approved six month extension and budget of Rs 46,000/- for hiring of a highly skilled labour under the project. |
| 7. | Comparison of hydrological regime of a micro watershed having dense oak forest with a degraded micro watershed. (Co-funded by ICFRE and UCOST) P.I. Sh. Rajeev Tewari | Approved Additional budget of Rs. 7.50 Lakh (<i>out of which ICFRE's contribution is Rs. 3.75 Lakh</i>) as revised salary of the JRF for a period of FIVE years, instead of three years. Services of one Data Entry Operator may also be engaged for a period of one year. 50 percent of the escalated cost would be provided by UCOST, being one of the collaborative funding agency. |
| 8. | Utilization of fungi for bio-treatment of industrial waste. P.I.: Dr. A.K. Tripathi | Approved <u>one year extension from April 09 to March 2010 with additional budget requirement of Rs.1.40 Lakh</u> |

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| 9. | Butterfly diversity in moist temperate forest of Garhwal P.I.: Dr. A.P. Singh | Approved One year extension with the budget of Rs. 40,000/-. |
| 10. | Upgradation and computerization of National Insect Reference Collection (NIRC). P.I.: Dr. Sudhir Singh | Budget of Rs. 2.00 Lakh approved for one year. Make the provision for web based payment for providing information relating to database of insect(s). |
| 11. | Endangered and rare entomogenous fungus, <i>Cordyceps sinensis</i> , identification of its insect hosts and food plants of insect host in the Bugyals of Uttarakhand P.I.: Dr. R.S. Bhandari | RPC suggested not to change the objective of the project, in case any objective is not fulfilled it should be mentioned in the project report as findings. |
| 12. | Evolving kiln schedules under vacuum drying for selected plantation species P.I.: Dr. Kishan Kumar | Approved extension for one and half year |
| 13. | Studies on performance of plantation grown species in cooling towers. P.I.: Sh. Ram Lal | Scientific analysis of the collapse of cooling towers to be carried out. Strength properties of the timber used in cooling towers to be tested. Extension for two years approved with a budget of Rs. 1.40 Lakh |
| 14. | Drying studies on timbers useful for handicrafts. P.I.: Sh. NK Upreti | Change in the title not considered. |
| 15. | Development of quality wood composite from P.I.: Dr. Anil Negi | Approved change of PI. |
| 16. | Development of organic cultivation protocol for enhancement of productivity of selected medicinal and aromatic plants of Uttarakhand. P.I.: Dr. Lokho Puni | Approved the extension of four months. |
| 17. | Studies on nursery diseases of important medicinal plant species of Uttarakhand. P.I.: Dr. Lokho Puni | Approved the extension for four months for extension work. |
| 18. | Extent and evaluation of die back of shisham (<i>Dalbergia sissoo</i>) and identification of disease resistance sources. P.I.: Dr. A.N. Shukla | Field Assistant cannot be upgraded at par with JRF. DG ICFRE requested the concerned PI to take administrative action by moving separate file for the desired support |

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|-----|---|---|
| 19. | Mortality of Kikar (<i>Acacia nilotica</i>) in Punjab and Haryana and its management. P.I.: Dr. A.N. Shukla | Field Assistant cannot be upgraded at par with JRF. |
| 20. | Screening and hybridizing Indian isolates of <i>Cordyceps sinensis</i> for enhanced production of bioactive principles. P.I.: Dr. A.N. Shukla | Field Assistant cannot be upgraded at par with JRF. |
| 21. | Molecular variability in <i>Cylindrocladium quinqueseptatum</i> causing leaf and seedling blight in <i>Eucalyptus</i> . P.I.: Dr. Amit Pandey | Field Assistant cannot be upgraded at par with JRF. |
| 22. | Exploration of diversity in <i>Ganoderma lucidum</i> and its conservation with special emphasis on its medicinal uses. P.I.: Dr. NSK Harsh | Approved the extra budget of Rs. 48,000/- per year for enhancement of fellowship of JRF engaged in the project. |

Institute of Forest Genetics & Tree Breeding, Coimbatore

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. In Lakh) | Comments of RPC |
|---------|--|--|
| 1. | IFGTB/RP 37/ 2005-2008 Studies on the population structure and reproduction of <i>Petrocarpus marsupium</i> in Tamil Nadu and Kerala | RPC approved Extension up to March 2010 with additional budget of Rs. 1 Lac. |
| 2. | IFGTB/RP 44/ 2007-2012 Evaluation and characterization of clones of <i>Casuarina</i> with reference to yield, tree form, biomass pulping characteristics and key nursery pests- | RPC approved revision of Action plan with change in budget estimate from Rs.27.31 to 25.45 lakhs |
| 3. | IFGTB/RP 50/ 2007-2009 Studies on efficacy of secondary plant derivatives of <i>Aegle marmelos</i> on important insect pests of teak | RPC approved extension for one year with additional budget of Rs. 1.5 lakh |
| 4. | IFGTB/RP 67/ 2008-2012 Studies on the impact of <i>Indarbela quadrinotata</i> on growth of <i>Casuarina equisetifolia</i> and factors influencing the pest infestation | RPC approved for full funding of the project. |

Arid Forest Research Institute, Jodhpur

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. In Lakh) | Comments of RPC |
|---------|--|--|
| 1. | Genetic Improvement of <i>Tecomella undulata</i> . (AFRI-33/FGTB-7/(2002- 2006). | RPC approved extension for two years without any additional funds. |
| 2. | Screening of high oil and Azadirachtin in Neem (AFRI-34/FGTB-8/2002-2006). | RPC approved extension for two years without any additional funds. RPC suggested to consider biotic / abiotic factors that affect the oil yield. RPC suggested to establish trials where there is no frost such as in Gujarat apart from the established one in Rajasthan |

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| 3. | Multilocational trial of <i>E. camaldulensis</i> and <i>D. sissoo</i> clones in state. (AFRI-41/FGTB/2002-08). | RPC approved extension for two years without any additional funds. Available funds to be utilised. RPC agreed to drop the tissue culture component with the suggestion to establish (five to ten) clonal trials with the protocol developed within the campus or nearby institute for testing and evaluating the performance of the said clones. |
| 4. | Efficacy and economics of water harvesting devices in controlling run-off losses and enhancing biomass productivity in Aravalli ranges (Funded by State Forest Department, Rajasthan). (AFRI-39/EED/ SFD/2005-08). | RPC approved extension for one year with approval of additional budget of Rs.80, 000/. |
| 5. | Management of potential insect pests and diseases of important medicinal plants grown in arid and semi-arid regions. (AFRI-72/FPD/2006-08). | RPC approved extension for one year with provision of one JRF with approval of additional budget of Rs.1,75,000/- . |
| 6. | Field Efficacy of chemical Control Measures For The Management of Khejri Mortality | Dropped |
| 7. | Development of suitable models for Eco-restoration of Degraded Community Lands in Thar Desert. (AFRI-74/Silvi/ 2006-10). | Dropped |
| 8. | Development of economically viable and integrated agroforestry models for arid region. (AFRI-55/Silvi/ 2003-08). | RPC approved and considered extension for three years with the additional fund requested, i.e., 2.50 lakhs |
| 9. | Quantitative estimation of biologically active secondary metabolites in some of the arid zone medicinal plants to ascertain correct harvesting time. (AFRI-50/NWFP/2002-08). | RPC directed to conclude the project as per the schedule proposed earlier. |

NEW PROJECTS**Himalayan Forest Research Institute, Shimla**

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. In Lakh) | Comments of RPC |
|----------------|---|--|
| 1. | Assessment of optimum harvest limits of <i>Picrorhiza kurrooa</i> and <i>Valeriana jatamansi</i> in H.P. PI- Dr. A. Rajasekaran 5 years Rs. 26.62 | Revise and resubmit by 5th March 09 RPC approved this project in principle with following suggestions: 1. Incorporate the defined and scientifically acceptable methodology. 2. Studies on population dynamics of the target species to be included. 3. Revised project may be submitted to Dr. Dobhal for his comments by 18 th Feb 2009 and after incorporation of comments revised proposal to be submitted to Chairman RPC by 5 th March 2009. |
| 2. | Identification of Superior Chemo-types and <i>ex-situ</i> Conservation of <i>Podophyllum hexandrum</i> Royle from Himachal Pradesh and Jammu & Kashmir (Nubra Valley) PI- Shri Jagdish Singh 5 years Rs.29.23 | Approved |
| 3. | Management of Nursery Insect-Pests of Shisham, Deodar and Banoak by Assessing the Efficacy of Commonly used Insecticides and Selected Plant Extracts PI- Dr. Pawan Rana 5 years Rs.21.76 | Dropped. |
| 4. | Biodiversity of Spiders in Himachal Pradesh. PI- Dr. S. Chakrabarti 3 years Rs.16.19 | Dropped |

Institute of Forest Productivity, Ranchi

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. In Lakh) | Comments of RPC |
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| 1. | <p>Introduction and evaluation of seed sources and/ clones of <i>Acacia auriculiformis</i> A. Cunn. Ex. Benth., <i>Gmelina arborea</i> and <i>Dalbergia sissoo</i> for Jharkhand State PI- Dr. M.V. Durai, R.O 5 years Budget :Revised Rs - 17.04 Lac</p> | <p>Revise and resubmit by 5th March 09</p> <p>Revise the project title, objectives, reduce the cost and duration accordingly. Budget to be modified as per requirement.</p> |
| 2. | <p>Phytochemical investigation of bark of <i>Vitex peduncularis</i>, <i>Soyamida febrifuga</i> and flower of <i>Pterospermum acerifolium</i> and evaluation of biological activity of the isolated compounds.</p> <p>PI - Dr. Malabika Ray, Scientist – D, 3 years Rs 20.42 Lac</p> | <p>Dropped</p> |
| 3. | <p>Standardization & dissemination of complete package of cultivation in relation to principle active in-gradient of important medicinal plants of Eastern India</p> <p>PI - Sh. S. K. Bhatia, SC – B 4 years, Budget : Revised Rs- 12.45 Lac</p> | <p>Revise and resubmit by 5th March 09</p> <p>Restrict the work to ten prioritized species based on their economic demand and requirement for rural masses. Accordingly revise the objectives and the cost of the project.</p> |
| 4. | <p>Effect of potassium application on diseases and pests in <i>Gmelina arborea</i> Rox. grown under Chhotanagpur Plateau soils.</p> <p>PI - Dr. S. Nath, SC – E 4 years, Budget :Revised Rs- 16.72 Lac</p> | <p>Revise and resubmit by 5th March 09</p> <p>Restrict to Phase-I only, and accordingly revise the objectives and cost of the project, later to be dovetailed with phase-II.</p> |

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| 5. | <p>Application of GIS for identification and monitoring of lac host belts in Chotanagpur area</p> <p>PI - Ms. Ruby S. Kujur, Scientist – B 3 years</p> <p>Budget Rs 11.60 Lac</p> | Approved |
| 6. | <p>Effect of humic acid on rooting behaviour in <i>Dalbergia sissoo</i>, <i>Tectona grandis</i>, <i>Gmelina arborea</i> and <i>Schleichera oleosa</i></p> <p>PI- Dr. M.V. Durai, R.O 2 years</p> <p>Budget Rs 9.33 Lac</p> | Approved |
| 7. | <p>Selection and improvement of natural dye yielding plants.</p> <p>PI - Sh. H. C. Sindhuveerendra, R.O. 4 years</p> <p>Budget Rs 8.60 Lac</p> | <p>Approved with modification Objectives to be reframed in consultation with Dr H S Ginwal, Head G&TB, FRI, Dehra dun</p> |
| 8. | <p>Ecological dynamics of vegetation structure and assessment of morphological adaptive variation to create baseline data in selected species in Dalma Wildlife Sanctuary.</p> <p>PI - Sh.H.C. Sindhuveerendra, R.O. 3 years</p> <p>Budget Rs 8.89 Lac</p> | Approved |

Tropical Forest Research Institute, Jabalpur

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. in Lakh) | Comments of RPC |
|---------|---|---|
| 1. | <p>Studies on the dynamics of litter decomposition in sal forests of central India and its impact on nutrient status of soil.</p> <p>P.I.: K.K. Soni Duration: 4 years Rs.9.13</p> | <p>Revise and resubmit by 5th March 09</p> <p>Incorporate studying carbon flux and accordingly CO-PI may be added to facilitate the study. Reframe objectives and resubmit.</p> |
| 2. | <p>Studies on the harvesting time of some selected medicinal plants for their natural antioxidants constituents.</p> <p>P.I.: Dr. Vishakha Kumbhare Duration: 3 years Rs.6.00</p> | <p>Approved</p> |
| 3. | <p>Determination of polysachharides for the development of bioproducts.</p> <p>P.I.: Smt. Neetu Singh Duration: 3 years Rs.14.0</p> | <p>Revise and resubmit by 5th March 09</p> <p>Incorporate specific names of Species. Two species of <i>Dioscorea</i>, Two species of <i>Curcuma</i> along with one species of <i>Amorphophyllus</i> to be mentioned in the objectives. Reframe objectives and resubmit.</p> |

Institute of Wood Science & Technology, Bangalore

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. in Lakh) | Comments of RPC |
|---------|--|--|
| 1. | Standardization of flower induction schedule in CSO of <i>Tectona grandis</i> and its impact on fruit set. Duration: 3 years (2009-12) PI: Dr. Ashutosh Srivastava Rs.8.33 | Approved With suggestion 'to find out the cost effectiveness of different treatments' |
| 2. | Production of synthetic biodiesel from the producer gas. Duration: 3 years (2009-2012) PI: R.Ezhumalai Rs.9.65 | Revise and resubmit by 5th March 09 Revise the project limiting conversion of wood waste to producer Gas. |
| 3. | Management of insect pests of <i>Gmelina arborea</i> Roxb. with particular emphasis on <i>Tingis beelsoni</i> Drake (Tingidae: Hemiptera) and disease surveillance. Duration: 4 years (2009-2013) PI: Dr. Y. Sridhar Rs. 6.77 | Approved |
| 4. | Study on microwave assisted extraction and transesterification of <i>Pongamia pinnata</i> seed oil. Duration: 3 years (2009-2012) PI: Ritesh D. Ram Rs. 7.95 | Approved |
| 5. | Fatty oil composition and utilization of lesser known tree borne oilseeds- <i>Givotia rottleriformis</i> , <i>Madhuca insignis</i> , <i>Shorea tumbergaia</i> , <i>Poeciloneuron indicum</i> , <i>Hopea parviflora</i> , <i>Mesua ferrea</i> and <i>Balanites roxburghii</i> . Duration: 3 years (2009-2012) PI: Dr. S. Mohan Rs. 8.51 | Approved |

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| 6. | <p>Study of tree crop interactions of six different species (<i>Moringa oleifera</i> Lam., <i>Eucalyptus camaldulensis</i> Dehnh., <i>Dendrocalamus strictus</i> Nees, <i>Annona squamosa</i> L., <i>Emblica officinalis</i> Gaertn. and <i>Azadirachta indica</i> A. Juss.) in combination with Jowar (<i>Sorghum vulgare</i> Pers.) and Red gram (<i>Cajanus cajan</i> L.) Duration: 3 years (2009-2012) PI: E. Venkat Reddy Rs. 10.00</p> | Not Approved |
| 7. | <p>Studies of litter organisms for enhancing productivity of soil in <i>Eucalyptus</i> plantation. Duration: 3 years (2009-2012) PI: Dr. N. Senthilkumar Rs. 7.86</p> | Approved |
| 8. | <p><i>Garcinia indica</i> : Identification of high yielders of fruits/L- hydroxy citric acid and pharmacological evaluation of the extract/active principle for anti-diabetic property. Duration: 4 years (2009-2013) PI: B.S. Chandrashekar Rs.5.11</p> | <p>Revise and resubmit by 5th March 09</p> <p>Study only “Pharmacological evaluation of extract for anti diabetic properties of <i>Garcinia indica</i>” Accordingly revision in objectives and budget can be done.</p> |
| 9. | <p>Investigations on fungal diseases and insect pests in forest nurseries of selected forestry species and their management. Duration: 3 years (2009-2012) PI: H.C. Nagaveni Rs.6.50</p> | <p style="text-align: center;">Approved</p> <p>Seed micro flora and seed treatments also to be studied.</p> |
| 10. | <p>Agroforestry trials in <i>Givotia rottleriformis</i> Griff. and <i>Gmelina arborea</i> Roxb. Duration: 5 years (2009-2014) PI: M.B. Honnuri Rs. 6.71</p> | <p>Revise and resubmit by 5th March 09</p> <p>Change the Title of the Project as “Development of Agroforestry Models of <i>Givotia rottleriformis</i> Griff. and <i>Gmelina arborea</i> for semi arid regions of Andhra Pradesh” . Accordingly revision to be done in the objectives</p> |

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| 11. | Effect of Arbuscular Mycorrhizae (AM fungi) and other bio inoculants with fast growing plant species for the reclamation of degraded lands and iron ore mine spoil in Karnataka. Duration: 5 years (2009-2014) PI: Dr. A. Ponnambalam Rs. 18.45 | Approved for external funding |
| 12. | Studies on chemical modification of wood and its thermoplasticization. Duration: 3 years (2009-2012) PI: Dr. K.K. Pandey Rs. 6.44 | Approved During the course of implementation of the project, seek suggestions from Shri Shankarkrishnan Kutty, Chairman Kutty Flush Doors. |
| 13. | Studies on Co-polymerization Kinetics Using Filler Supported Catalyst System. Duration: 3 years (2009-2012) PI: Dr. Ajay Karmarkar Rs. 6.34 | Approved |
| 14. | Effect of moisture content and diameter on the treatability of canes by vacuum impregnation method. Duration: 2 years (2009-2011) PI: D. Venmalar Rs. 2.00 | Approved |
| 15. | To study the sustainability of strength in selected plantation timbers and Bamboo as a function of deterioration in three different localities. Duration: 3 years (2009-2012) PI: N.C. M. Rajan Rs. 1.325 | Revise and resubmit by 5th March 09 <ul style="list-style-type: none"> • PI should ensure practical applicability. • Use of ultrasonic device for ascertaining deterioration in fixed wood should be undertaken in the project instead of the proposed graveyard test. • Revised project cost should not exceed Rs. 1.00 lakh. |
| 16. | Biodiversity and molecular characterization of wood decay fungi occurring in the selected wet evergreen forests of Karnataka. Duration: 3 years (2009-2012) PI: Dr. A. Muthu Kumar Rs. 8.93 | Revise and resubmit by 5th March 09 Restrict the work up to taxonomic survey in one wet area of evergreen forests of Karnataka. Finger printing and DNA studies need not be done. The Project Cost and duration accordingly to be changed. |

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| 17. | Development of Commercial Timber Information System (CTIS). Duration: 3 years (2009-2012) PI: V. Soundararajan Rs. 3.50 | Approved |
| 18. | Studies on macro propagation of Bamboo species. Duration: 3 years (2009-2012) PI: K.S. Venkataramanan Rs. 7.19 | Approved |
| 19. | Development of micro propagation protocols for production of superior germplasm of <i>Dalbergia latifolia</i> Roxb. <i>Lagerstroemia parviflora</i> Roxb. <i>Pongamia pinnata</i> (L.) Pierre. <i>Pterocarpus marsupium</i> Roxb. and <i>Pterocarpus santalinus</i> L. f. Duration: 5 years (2009-2014) PI: Dr. G.R.S. Reddy Rs.30.00 | Revise and resubmit by 5th March 09 Take only two species, <i>Dalbergia latifolia</i> and <i>Pterocarpus santalinus</i>, Budget to be restricted to Rs 10.0 Lac only. |

Rain Forest Research Institute, Jorhat

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. in Lakh) | Comments of RPC |
|---------|---|---|
| 1. | <p>Standardization of clump management practices of selected Bamboos species for enhanced productivity of culms and shoots.</p> <p>PI:Sh.Lalnunsanga Khawlhring Duration: 3 years Rs. 6.60</p> | <p>Not Approved.</p> |
| 2. | <p>Investigations on ecology of Mimosa invasion in Kaziranga National Park, Assam.</p> <p>P.I. : Dr. Vishavjit Kumar Duration: 3 years Rs. 19.08</p> | <p>Approved</p> <p>For Rs 15.00 Lac only</p> <p>RPC opined that one third of Rs 15.00 Lac financial assistance should come from SFD/ Kaziranga National Park Management. As Director RFRI expressed his apprehensions in getting funds from Assam Forest Department, it was decided that possibility of getting part funding from Assam Forest Department, can be explored and Chairman RPC was authorized to take decision at a later date regarding full funding of the project.</p> <ul style="list-style-type: none"> • Short term objective of the project at 4 required to be replaced with the following: “To evaluate the effectiveness of existing control measures and suggest improvements”. |
| 3. | <p>Bamboo-based agroforestry interventions for ecorestoration of degraded land in Khamrang watershed, Mizoram .</p> <p>P.I.: Sh Kalpataru Kar. Duration: 5 years Rs.26.95</p> | <p>Not approved</p> |
| 4. | <p>Assessment of Rattan diversity and Conservation Strategy in respect of Mizoram, Tripura & Barak Valley of Assam.</p> <p>P.I. : Sh. Kalpataru Kar, DCF Duration: 3 years Rs.12.70</p> | <p>Approved</p> |

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| 5. | <p>Conservation of Superior germplasm of commercially significant Bamboo and Rattans Species of Mizoram. P.I. Shri L. Khawlhing, Duration : 3 years (DG approved the project during video conference held on 20-06-2008) Rs.6.80</p> | <p style="text-align: center;">Approved</p> |
| 6. | <p>Survey, identification of pest and disease of bamboos in Assam and to find out their eco-friendly management strategies. P.I. : Dr. R. K. Borah Duration : 3 years Rs.16.69</p> | <p>Revise and resubmit by 5th March 09</p> <p>Redraft the project proposal on bamboo shoot blight, and resubmit the project proposal before 5 March 2009.</p> <ul style="list-style-type: none"> ➤ Prepare a project specifically on bamboo shoot blight and its control measures. ➤ The budget of the project should not be more than Rs. 6.00 Lakh. |
| 7. | <p>Diversity of ectomycorrhizal fungi associated with <i>Dipterocarpus</i> and <i>Shorea</i> species in Assam . P.I. : Dr. Ashawni Tapwal Duration : 3 years Rs.4.88</p> | <p style="text-align: center;">Approved</p> <ul style="list-style-type: none"> ➤ Change project title as: ‘Diversity of mycorrhizal associations with <i>Dipterocarpus</i> and <i>Shorea</i> species in Assam’. ➤ Include both endo-mycorrhizal and ecto-mycorrhizal associations in the project proposal. |
| 8. | <p>Genetic evaluation of bamboo germplasm in RFRI Germplasm Bank. P.I. : Dr. S Pattanaik. Duration : 2 years Rs.6.75</p> | <p style="text-align: center;">Approved</p> <p>Initiate the research work with RAPD markers and later to be graduated with ISSR and PCR based RFLP markers.</p> |
| 9. | <p>Assessment of phytodiversity for conservation in Jeypore Reserve Forest. P.I. : Dr. Ranjeet Kumar Duration: 3 years Rs.15.63</p> | <p style="text-align: center;">Approved</p> <ul style="list-style-type: none"> • Assessment of phyto-diversity should be quantitative. • Meteorological/climatic data and physico-chemical properties of soil be incorporated in the study for comparative assessment with the earlier studies conducted so far. • Slight modification in the project title is suggested and suggested project title is: ‘Assessment of phyto-diversity dynamics for conservation in Jeypore Reserve Forest’. |

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| 10. | Studies on phyto-proteins from selected plant/s of Northeast region for the production of Protein Concentrates with greater food value. P.I. : Dr. Vikas Rana, Duration: 3 years Rs.14.82 | Approved |
| 11. | Clonal propagation of superior <i>Dendrocalamus hamiltonii</i> Nees. germplasm through <i>in-vitro</i> techniques P.I. : Dr. A.K. Sarkar Duration: 3 years Rs. 10.56 | Approved |
| 12. | Comparative Studies on Optimum treatment Times and Durability Test of Commercially Important Bamboos Species of North Eastern Region. P.I.: Dr. Anil Negi, Duration: 3 years Rs. 4.12 | Approved The project may be taken up as an extension of the existing research. |
| 13. | Utilization of Vesicular Arbuscular Mycorrhizal diversity for the quality stock production of some useful forest plant/s species of Nongkhyllam Reserve Forest, Nongpoh, Meghalaya, India P.I.: Dr. Vipin Prakash, Duration: 3 years Rs. 14.64 | Approved |
| 14. | Assessment of soil fertility status and carbon sequestration in some Forest Types of Northeast India for sustainability and management. P.I. : Dr. B. M Dimri, Duration : 3 years Rs. 8.49 | Revise and resubmit by 5th March 09 As the PI has been transferred from RFRI, so it is suggested that the new PI may reformulate the project with novel concepts and reduced budget. |
| 15 | Rehabilitation of degraded jhum land through potential bamboo species with reference to carbon sequestration and livelihood development. P.I. : Dr. I.P Bora, Duration : 5 years Rs 16.12 lakhs | Approved |

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| 16 | <p>Resource Survey, Inventorization and Standardization of Inoculation Technique in <i>Aquilaria malaccensis</i> Lamk.</p> <p>P.I. : Dr. R.K Bora, Duration : 5 years Rs 22.812 lakhs</p> | <p>Revise and resubmit by 5th March 09</p> <p>The Survey part may be removed and concentration be on inoculation techniques. Objectives to be accordingly changed and budget to be kept as at Rs.10.00 (Ten) Lakh only.</p> |
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Forest Research Institute, Dehradun

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. in Lakh) | Comments of RPC |
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| 1. | Propagation of hill bamboo through conventional and in vitro techniques P.I.: Dr Meena Bakshi Duration: 3 years Rs. 12.35 | Approved Incorporate the extension component 'on assessment of requirement of the species in the areas under the project' |
| 2. | Development of eco-friendly natural hair colorants – P.I.: Shri Rakesh Kumar Duration: 3 years Rs. 9.80 | Revise and resubmit by 5th March 09 ➤ Title of the project may be modified as 'Development of eco-friendly, PPD free hair colorants' ➤ Application for patent is required to be filed for product patenting through PCT and project work also to be completed within two years. |
| 3. | Study of essential oils of <i>Thymus serpyllum</i> grown in different altitudinal locations at stages of harvesting P.I.: Dr. Pushpa Borai Duration: 2 years Rs. 4.10 | Approved <i>Thymol</i> content in the cultivated plants with wild ones is required to be assessed. |
| 4. | Biodeinking of waste paper P.I.: Dr. Sanjay Naithani Duration: 3 years Rs. 6.734 | Approved With a budget of Rs. 6.734 Lac |
| 5. | Rehabilitation of Timber Engineering Museum / P.I.: Shri. Rajesh Bhandari Duration: 1 year Rs. 3.00 | Approved The term used in the title should be "Strengthening in place of rehabilitation" |
| 6. | Studies on bamboo joints for structural purposes P.I.: Shri Rajesh Bhandari Duration: 3 years Rs. 8.65 | Approved |
| 7. | Development of Deodar (<i>Cedrus deodara</i>) information System. P.I.: Shri Amit Asthana Duration: 2 years Rs. 20.072 | Approved <i>Pinus wallichiana</i> (Blue Pine) be added as one more species in the project. |

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| 8. | <p>Selection of plus trees from natural range of diversity and genetic evaluation of <i>Melia composita</i> (Willd.) P.I.: Dr. Ashok Kumar Duration: 3 years Rs. 24.06</p> | <p style="text-align: center;">Approved</p> <ul style="list-style-type: none"> ➤ Title of the project to be modified as 'Selection and genetic evaluation of '<i>Melia composita</i>' (Willd.) ➤ The budget of the project is reduced to Rs. 19.50 Lakh (Rs. 15.00 Lac for FRI and Rs. 4.50 Lac for RFRI). ➤ Dr Tarachand to be added as one of the Co-PIs. |
| 9. | <p>Bioassay of some commercially available bio-pesticides against major defoliators of Poplar and Shisham P.I.: Dr. K.P.Singh Duration: 3 years Rs. 3.90</p> | <p style="text-align: center;">Revise and resubmit by 5th March 09</p> <ul style="list-style-type: none"> ➤ It is suggested that bioassay of plant extracts should be shortlisted in consultation with the Chemistry Division of FRI instead of commercially available bio-pesticides. ➤ Involvement of Chemistry Division of FRI is required (Co-P.I. to be involved from Chemistry Division). ➤ The cost of the project should not increase. ➤ Accordingly title to be revised. |
| 10. | <p>Studies on performance of ZiBOC treated imported wood in different agro climatic conditions P.I.: Dr. Sadhana Tripathi Duration: 5 years Rs. 6.00</p> | <p style="text-align: center;">Approved</p> |
| 11. | <p>Testing of Vegetative Multiplication Technique of <i>Microstylis wallichii</i> in its Natural Habitat P.I.: Shri BP Tamta Duration: 4 years Rs. 6.45</p> | <p style="text-align: center;">Approved</p> <p>50% of the budget for the project will be funded by UCOST and remaining 50% from ICFRE.</p> <ul style="list-style-type: none"> ➤ Consult the scientists of National Research Centre for Orchids (NRCO), Pakyong (Sikkim) regarding the work done (if any) on <i>Microstylis wallichii</i>. ➤ Collaboration of Wildlife Wing of Uttarakhand is required. ➤ It will be the collaborative project of ICFRE, UCOST and Wildlife Wing of Uttarakhand. |

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| 12. | Development of clonal propagation technologies for mass production of planting material of a commercially important medicinal plant species- Saraca asoka P.I.: Dr Meena Bakshi Duration: 3 years Rs. 4.63 | Approved Include one Co-P.I. from Entomology Division for controlling the insect problem as the insects eat seeds before attaining maturity and also one Co-P.I. from Silviculture Division. |
| 13. | Impact of Human Induced Disturbance on Regeneration and Population Structure of Rhododendron arboretum in Mid Hills of Gharwal Himalaya P.I.: Dr HB Vasistha Duration: 3 years Rs. 8.32 | Revise and resubmit by 5th March 09 ➤ A study on seed biology of Rhododendron and optimal level of harvesting of its flowers is also required to be studied with the involvement of Co-P.I. from Seed Testing. ➤ The project duration should be increased to five years for completing all the suggested studies. |
| 14. | Digitization and development of web based software databases system for pathology herbarium and national type culture collection of FRI, Dehradun / P.I.: Shri Neelesh Yadav Duration: 3 years Rs. 13.356 | Approved With a budget of Rs. 8.50 Lakh. ➤ No JRF is required and engagement of two Data Entry Operators for the project works is sufficient. ➤ The budget of the project to be limited up to Rs. 8.50 Lakh. |
| 15. | Development of Eco-friendly Substitutes for Nursery Poly bags and Study Their Effects on Plant Growth and Environment P.I.: Dr (Mrs) P Soni Duration: 3 years Rs. 6.18 | Approved With a budget of Rs. 5.00 Lakh. |
| 16. | Development of artificial diet for Conservation and utilization of Preying mantids as bio control agents P.I.: Shri Lalji Prasad Duration: 22 months Rs. 2.25 | Approved With a budget of Rs. 2.25 Lakh. ➤ Project duration should be 2 years instead of 22 months. ➤ Ecological impacts of increasing the population (after release in natural habitat) of mantids are required to be studied simultaneously. |

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| 17. | Variability studies on fodder value and seed characters of <i>Bauhinia purpurea</i> , <i>Bauhinia semla</i> and <i>Bauhinia variegata</i> for their <i>ex-situ</i> conservation P.I.: Ms Manisha Thapliyal Duration: 4 years Rs. 10.85 | Revise and resubmit by 5th March 09 ➤ Define the parameters of variability. ➤ Remove the objective no. 1 (To study the variability in the fodder value of foliage of <i>Bauhinia purpurea</i> , <i>Bauhinia semla</i> and <i>Bauhinia variegata</i> collected from different sources), as lot of works has already been done on this aspect. ➤ Add the study on seed mycoflora and involve one Co-P.I. from Forest Pathology Division. ➤ Relate the seed mycoflora with the seed viability. |
| 18. | Studies on bending behaviour of glued laminates from finger jointed sections of commercial timbers P.I.: Dr Kishan Kumar Duration: 3 years Rs. 4.16 | Approved |
| 19. | Study on Environmental goods & Services imparted by distinct Forest ecosystem in Mussoorie Forest Division P.I.: Shri Ganga Singh Duration: 3 years Rs. 13.90 | Approved Change the word environmental with ecosystem in the project title. |
| 20. | Enhancement of seed germination in <i>Anogeissus latifolia</i> through various seed technological inputs. P.I.: Dr Ombir Singh Duration: 3 years Rs. 4.75 | Approved |
| 21. | Developing seed technology and propagation techniques for germplasm conservation of <i>buxus wallichiana</i> linn.,– an important alternative species for the woodcraft industry P.I.: Ms Manisha Tapliyal Duration: 3 years Rs. 11.002 | Approved |

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| 22. | <p>Improvement and conservation of the <i>Madhuca longifolia</i> var. <i>latifolia</i> (Robb.) (Mahua species) for quantitative and qualitative flower, seed and oil yield in Uttar Pradesh.</p> <p>P.I.: Mr B K Pandey Duration: 3 years Rs. 14.60</p> | <p style="text-align: center;">Approved</p> <ul style="list-style-type: none"> ➤ Title of the project is required to be modified as: Qualitative and quantitative improvement of flower, seed and oil yield of <i>Madhuca longifolia</i> var. <i>latifolia</i> Roxb in Uttar Pradesh. ➤ Some organisations are working on this species so it is also suggested to explore their works/findings. ➤ Objectives to be framed for the phase II of this project for extension activities. |
| 23. | <p>Studies on the effect number of coatings on Moisture Exclusion Effectiveness and gloss</p> <p>P.I.: Dr Kishan Kumar Duration: 3 years Rs. 7.22</p> | <p style="text-align: center;">Approved</p> <p>RPC members were of the opinion to get the project funded by industry. However, Head, FP Division informed that baseline data is required before industry can be approached for funding. Accordingly RPC approved the project.</p> |

Institute of Forest Genetics & Tree Breeding, Coimbatore

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. in Lakh) | Comments of RPC |
|---------|--|--|
| 1. | Development of macro and micropropagation techniques for <i>Melia dubia</i> for planting stock production PI- Rekha R. Warriar, Duration: 3 years Rs. 5.76 | Approved Reduce the project period to two years. |
| 2. | Development of Agroforestry system with economically important medicinal plants under industrial tree species of <i>Casuarina</i> and <i>Eucalyptus</i> PI - Dr. K. Panneerselvam, Duration: 3 years Rs. 14.06 | Approved With the following suggestions 1. Consider micronutrient levels in soil 2. Laying of experimentation under irrigated and non-irrigated conditions 3. To conduct trials in the farm condition to assess the impact before extending. |
| 3. | Development of methods for functional analysis of genes involved in salt tolerance in <i>Eucalyptus tereticornis</i> PI-Dr. N.V. Mathish Duration: 5 years Rs.30.93 | Approved |
| 4. | Development of eco-restoration model for potential regeneration areas in Western Ghats PI - Dr.C. Kunhikannan, Duration: 5 years Rs. 15.12 | Approved With the following suggestions 1. To assess baseline condition before implementation to account for the environmental services due to the interventions made during implementation, i.e., quantum of goods and services present now and quantum of goods and services present later. \ |
| 5. | Selection, evaluation and identification of efficient bio-inoculants for quality seedling production of selected fast growing native tree species PI - Dr. V. Mohan Duration: 3 years Rs. 7.5 | Approved With the following suggestions 1. Select site specific species 2. To document the fungi site specific baseline data purpose 3. Change species instead of <i>Ailanthus excelsa</i> to <i>A. malbarica</i> and add another species as <i>Dalbergia latifolia</i> |

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| 6. | IPM for the key pests of <i>Ailanthus excelsa</i> , <i>Gmelina arborea</i> and <i>Dalbergia sissoo</i> in nurseries and in young plantations PI - R. Raja Rishi, Duration: 3 years Rs. 4.40 | Approved With the following directions 1. To have Co-PI from pathology and Biochemistry 2. Experiment with local weed extract as bio-pesticide |
| 7. | Screening of high yielding clones and seed sources of Eucalypts spp. for gall insect pest, <i>Leptocybe invasa</i> Fisher & La Salle PI - Dr. A.Balu, Duration: 3 years Rs. 9.20 | Approved |
| 8. | Development of advanced generation seed orchard of <i>A. mangium</i> based on biomass and wood density P.I.: Dr. Maheswar Hegde, Duration: 5 years Rs. 15.31 | Approved |
| 9. | Impact of continuous moisture on growth, seed production, wood characteristics and disease problems of canal Teak plantations in Tamil Nadu PI – Dr. K.Palanisamy Duration: 3 years Rs. 10.95 | Approved |
| 10. | Enhancing rootability and planting stock production of selected high yielding <i>Eucalyptus</i> clones through Micro and Mini cutting technique PI - V.K.W.Bachpai Duration: 3 years Rs. 5.00 | Approved With budget of Rs 6.44 Lac |
| 11. | Screening for blister bark disease resistance in <i>Casuarina equisetifolia</i> clone PI - Dr. A. Karthikeyan Duration: 5 years Rs. 16.61 | Approved |

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| 12. | Identification of biochemical marker for salinity tolerance in <i>Casuarina equisetifolia</i> R. Ananthalakshmi Duration: 3 years Rs. 9.90 | Approved |
|-----|--|-----------------|

Arid Forest Research Institute, Jodhpur

| Sl. No. | Project Title/Name of the PI/Duration/Budget (Rs. in Lakh) | Comments of RPC |
|---------|--|--|
| 1. | Development of tissue culture technology for multiplication of economically important desert plant- <i>capparis decidua</i> . PI - Dr. I.D. Arya Duration: 5 Years Rs. 9.8 | Revise and resubmit by 5th March 09 Change of species instead of <i>Capparis decidua</i> , propose another species as per requirement of the region. |
| 2. | Evaluation of antifungal potential and Identification of broad spectrum fungicidal compound from some trees of arid region of Rajasthan PI - Ms. Bhawana Sharma Duration: 5 Years Rs. 9.00 | Revise and resubmit by 5th March 09 <ul style="list-style-type: none"> • RPC suggested to have Co PI from Chemistry • RPC directed the concerned principal investigator to consult Dr. Rasmeshwar Dyal, Head Chemistry Division of FRI for expert advice on identification of promising species having bio-pesticidal properties, and Dr. Shukla, Head Pathology Division FRI for shortlisting the important fungi species to reframe the project. |
| 3. | Investigations on Genetic Variation and Inheritance of Western Indian teak (<i>Tectona grandis</i> L.f) PI - Sh. P.H. Chawhan Duration: 5 Years Rs. 20.71 | Approved <ul style="list-style-type: none"> • RPC approved the project and recommended to follow scientific and technical input provided as per the recommendations of the RAG |
| 4. | Growth studies on teak forests & plantations in Gujarat for their sustainable management. PI - Dr. V.P. Tewari Duration: 5 Years Rs. 12.2 | Approved <ul style="list-style-type: none"> • RPC recommended to confine the studies to the plantations only with standard methodology. |

All India Coordinated Projects

Lead Institute: Forest Research Institute, Dehra Dun

| S.NO | Project Title | Comments of RPC |
|------|---|--|
| 1 | <p>Forest fire monitoring and evaluation in different forest ecosystems in India</p> <p>Dr P. Soni, Head, Forest ecology and Environment division, FRI,</p> | <p>In principle approved by RPC,</p> <ul style="list-style-type: none"> • Recast the project keeping in view the need for region specific problems taking into account factors that contributes to the forest fire. • Suggested to consult elaborate literature and websites providing real time information/assessment models • Explore for external funding. • Workout the financial requirement in consultation with the collaborating institutions for integrated project. • Include PI from other organizations like FSI, and Space Research Institutes. • Shifting cultivation areas also to be considered. |
| 2 | <p>Study on Environmental goods & Services imparted by Forests</p> <p>Dr. S.P.S Rawat, Climate change Division, FRI</p> | <p>In principle approved by RPC.</p> <ul style="list-style-type: none"> • Instead of environment services, “ecosystem Services” should be used, as extensively followed in the available literature • Identify the activities, methodology for accounting ecosystem services Consult NATCOM for methodology and involve various experts for streamlining the methodology including Dr. Hari Priya, Dr. Kanchan Chopra and other experts on the subject. • Identify and define various scientific activities associated with ecosystem services and collaborating institutes • Suggested to involve IIT Mumbai and IISC Bangalore as collaborating institutes. • Involve Dr. Renu Singh IFS, Head BCC Divison, Dr. Rajeev Pandey, Sc-D and Shri. V.R.S. Rawat, Scientist D from ICFRE. • Explore for external funding |

Annexure-V**Abstract of new research Projects along with the budgetary details**

| Name of the Institute | No. of New Research Projects Approved with or without modification by X RPC | Total Tentative Budget (Lac) | No of Projects to be modified | No of Projects approved |
|-----------------------|--|-------------------------------------|-------------------------------|-------------------------|
| HFRI, Shimla | 2 | 55.85 | 1 | 1 |
| IFP, Ranchi | 7 | 84.63 | 3 | 4 |
| TFRI, Jabalpur | 3 | 29.13 | 2 | 1 |
| IWST, Bangalore* | 17 | 113.215 | 6 | 11 |
| RFRI, Jorhat** | 14 | 152.2 | 3 | 11 |
| FRI, Dehradun*** | 23 | 194.985 | 3 | 20 |
| IFGTB, Coimbatore**** | 12 | 146.18 | - | 12 |
| AFRI, Jodhpur | 4 | 51.71 | 2 | 2 |
| Total | 82 | 827.9 | 20 | 62 |

***Projects of Dr. A. Ponnambalam approved for external funding for Rs.18.45 Lakh not included in the figured amount and other project of Dr. G.R.S. Reddy for Rs.10.00 Lakh, used for calculation as RPC reduced internal funding from Rs.30.00 Lakh to Rs.10.00 Lakh**

**** Project of Dr. Vishavjit Kumar total fund approved for the project is Rs.15.00 Lakh with one third to come from SFD, accordingly Rs.10.00 Lakh taken for calculation. In other project of Dr. R.K Bora instead of Rs.22.812 Lakh, only Rs.10.00 Lakh taken for calculation as the same amount was modified by RPC.**

***** Project of Shri BP Tamta only 50% of the cost taken into consideration as 50% would be borne by UCOST and in other project of Dr P Soni, instead of Rs.6.18 Lakh only Rs.5.00 Lakh, similarly in case of project of Nilesh Yadav only Rs.8.5 Lakh taken into consideration, as per the budgetary figures approved by RPC.**

****** Project of V.K.W. Bachpai, Scientist – B instead of Rs.5.00 Lakh Rs.6.44 Lakh taken for calculation purposes.**



