

**Proceedings of the  
XVI Research Policy Committee (RPC) Meeting  
27-28 February, 2015**



**Thrust Areas of ICFRE Research:**

Managing Forest & Forest Products for Livelihood Support & Economic Growth  
Biodiversity Conservation & Ecological Security  
Forests and Climate Change  
Forest Genetic Resource Management & Tree Improvement

**Directorate of Research**

**Indian Council of Forestry Research & Education (ICFRE)**

(An Autonomous body of the Ministry of Environment, Forests & Climate Change, Govt. of India)

**P. O. New Forest, Dehradun – 248 006**

# Index

<b>Sl No.</b>	<b>Contents</b>	<b>Page No</b>
1.	Minutes of the XVI meeting of RPC	1-8
2.	Budget Summary of ongoing, new approved projects and other research related activities ( <b>Table 1-6</b> )	9-13
3.	Annexure I: Ongoing and new project of AFRI	14-20
4.	Annexure II: Ongoing and new project of FRI	21-32
5.	Annexure III: Ongoing and new project of HFRI	33-38
6.	Annexure IV: Ongoing and new project of IFB	39-42
7.	Annexure V: Ongoing and new project of IFGTB	43-52
8.	Annexure VI: Ongoing and new project of IFP	53-57
9.	Annexure VII: Ongoing and new project of IWST	58-65
10.	Annexure VIII: Ongoing and new project of RFRI	66-75
11.	Annexure IX: Ongoing and new project of TFRI	76-82
12.	Annexure X: Completed and closed ICFRE funded projects in 2014-15	83-87
13.	Annexure XI: Summary of Externally aided projects	88
	1. Ongoing projects during 2014-2015	89-112
	2. Projects submitted for external funding during 2014-2015	113-125
	3. Projects completed during 2014-2015	126-133
14.	Appendix I: List of participants of XVI RPC	134
15.	Appendix II: Programme of RPC	135-136

### **Abbreviations**

<b>Sl. No.</b>	<b>Abbreviation</b>	<b>Description</b>
1.	OG	Ongoing projects
2.	CR	Ongoing projects with change request
3.	NW	New projects approved for ICFRE funding
4.	EF	Projects approved for funding from other sources
5.	NA	Projects not prioritised for funding
6.	A, A1, A2	Projects merged with other projects

Indian Council of Forestry Research and Education (ICFRE)

**Proceedings of the XVI meeting of the Research Policy Committee (RPC)  
27-28 February, 2015**

1. XVI meeting of Research Policy Committee (RPC) was convened at the Board Room of ICFRE, Dehradun under the Chairmanship of Dr. Ashwani Kumar, Director General, ICFRE on 27-28 February, 2015. List of participants of RPC meeting is at Appendix I.

2. The meeting opened with welcome of the Chairman RPC, the RPC members and special invitees by Dr. G. S. Goraya, Deputy Director General (Research) and Member Secretary, RPC. Dr. Goraya presented an overview of the research program of ICFRE along with comprehensive analysis of the progress over the last one year i.e. 2014-2015. He presented the research highlights of the past one year and congratulated the Council's research teams for their path breaking achievements.

3. He informed that budget availability for the new projects had remained a constraint over the past 3 years and budget deficit had already affected the research program of the Council. It was due to these budgetary constraints that during the year 2014-15 only 13 (4 in general and 9 in NE component) new projects out of 80 (72 of RPC, 2014 & 8 in Follow up) approved by RPC during the year could be started, of which 09 were initiated under the NE budget component. The number of ongoing projects taken up for implementation over the last 3-4 years had also come down from 263 in 2013-14 to 170 in 2014-15 and just 114 for the year 2015-16. In addition, he highlighted that the ICFRE Institutes also maintain field stations, nurseries and requires funds for equipments and laboratories infrastructure maintenance which was also under severe constraint during the year. He also drew attention towards non-availability of dedicated budget line for maintenance of research trials, nurseries, scientific equipment and implementation of Working Plans for Institute Campuses, resulting in the Institutes drawing from the already limited research budget allocated to them adversely affecting the implementation of ongoing projects. He informed members of the conscious decision taken during XV RPC (6-8 March, 2014) to allocate funds on priority to the ongoing projects so that these could be completed on time. New projects would only be taken up if funds were available after meeting budget needs of ongoing projects. Dr. Goraya informed that this approach resulted in successful culmination of 65 projects during the year 2014-15. He called upon the Directors to ensure that the budget estimates in respect of all new projects are realistic, so that the meager budgetary resources could be put to optimum use. He also drew attention towards the need to utilize the allotted funds for the projects in a time bound manner and called upon the Directors to monitor the progress of ongoing projects more critically. Submission of the pending Projects Completion Reports (PCR) was also highlighted as an important issue by Dr. Goraya in his opening remarks.

4. Dr. Goraya informed the house that budgetary constraints had not deterred the scientific personnel of the Council to carry on with research and extension activities. Good efforts to raise project funding from various sources outside ICFRE were made and during 2014-2015, 143 such projects (including consultancies) with a total budget outlay of Rs 75.39 crores were under implementation in the Council. The Council had also successfully completed 28 such projects worth Rs 19.73 crores during 2014-15. Moreover, 74 project proposals at a total budget outlay of Rs 34.29 crores were already submitted for funding from other sources and were in various stages of finalisation. In addition, he informed, the Council also takes up subject specific consultancies and 19 such consultancies were successfully completed during the year. He also informed the members that during last one year ICFRE Institutes conducted five international/ national

conferences (FRI=2, IWST=2, IFGTB=1) with fund support generated from sources outside ICFRE. During the year, the Council also successfully culminated World Bank aided SLEM Project through the Directorate of Extension. He informed that the Directorate of Research of the Council was also a dedicated Bamboo Technology Support Group of the National Bamboo Mission, Govt. of India (BTSG-ICFRE) and that during 2014-15, a grant of Rs 176.93 lakhs was received by the BTSG-ICFRE from the NBM for various research and bamboo development activities.

5. Dr. Goraya also informed the Committee about the action taken on the issues raised during the last RPC (March, 2014) meeting. Regarding the submission of pending PCRs, he informed, the Directors were called upon to take appropriate measures to get the pending PCRs written and submitted to headquarters. The issue, he said, still remained an area of concern. The RPC thereafter deliberated upon the issue in detail and the Directors were once again requested to analyse reasons for non-submission of PCRs in respect of their Institutes and ensure submission of all pending PCRs by 31<sup>st</sup> March 2015. The Committee also decided that the Principal Investigators (PIs), who were yet to submit PCRs in respect of their projects that culminated upto March 2014, will not be allowed to take up implementation of any new project till submission of the pending PCRs. In as far as submission of PCRs in respect of projects that will culminate on the 31<sup>st</sup> March 2015, the PCRs would need to be submitted by 30<sup>th</sup> June 2015.

6. Continuing with the action taken report on the observations of the last RPC (XV RPC of March 2014), Dr. Goraya informed that the RPC had expressed concern about the quality of research projects, especially in respect of literature review, statistical design, methodology, and linkages to the previous or future research program of the Council. He informed that this concern was sought to be addressed by introducing a new set of technical criteria for assessment of the new projects for 2015-16 on robustness of statistical design and methodology and appropriateness of literature review and problem analysis at the level of Research Advisory Group (RAG) meetings of the Institutes. These criteria were:

<b>S. No.</b>	<b>Technical Criteria for Project Assessment</b>	<b>Max. Score</b>	<b>Score by RAG Member</b>
I	Comprehensiveness of literature review – whether gaps in knowledge on the issue have been clearly brought out	20	
II	Objectives – clarity towards meeting knowledge gaps and measurability	20	
III	Methodology – appropriateness in meeting the objectives	20	
IV	Statistical design and analysis tools – whether robust enough to support project methodology and to help in meeting project objectives	20	
V	Forward-backward linkages – how strongly the proposed project is based on the ongoing institutional program and how the outputs are proposed to be integrated into the same program	20	
	<b>Total:</b>	<b>100</b>	

Only the projects scoring 70 or more on the above technical parameters (based on average of scores by the RAG members present) were to be recommended by Institute RAGs to the RPC. The RPC members highly appreciated this initiative.

7. Dr. Vimal Kothiyal, ADG (Research Planning) thereafter informed the Committee about the planned structure of the XVI RPC meeting and presentation plan. The research program of the Council, he highlighted, was organised into the following 4 thrust areas:

- **Thrust area I:**Managing Forest and Forest Products for Livelihood Support and Economic Growth
- **Thrust area II:**Biodiversity Conservation and Ecological Security
- **Thrust area III:**Forests and Climate Change
- **Thrust area IV:**Forest Genetic Resource Management and Tree Improvement

He further informed that the meeting was structured into 4 sessions to address each of the 4 Research Thrust Areas in a focused way. Each session will have presentations from all the 9 Institutes and each presentation would follow the broad structure given below:

- Overview of all the ongoing projects thrust area wise (both ICFRE funded and non-ICFRE funded)
- Ongoing projects with change request, and
- New proposals (including those approved by XV RPC)

8. The Director General ICFRE-cum-Chairman of RPC, Dr Ashwani Kumar, thanked Dr. Goraya and Dr. Kothiyal for an overview, detailed analysis of the ongoing research program of the Council, and explaining the structure of the meeting. He appreciated the efforts of the senior management and scientific personnel of the Council and its Institutes for exploring and getting fund support for Council's research program from sources outside ICFRE. He also congratulated them for raising necessary funds and organizing national and international seminars/ conferences during the year. He, however, expressed concern at the resource crunch at the Council affecting the ICFRE funded research program that was evident from the dwindling number of ICFRE funded research projects. The Chairman, acknowledging the concerns about plan funding for the research program informed the Committee that the budget constraint was likely to remain tight over the next year also. He called upon the ICFRE management and scientific team to continue exploring funding options from other sources. Expressing concern at the delay in submission of PCRs, he called upon the PIs to submit all pending PCRs at the earliest and asked the Directors to monitor the PCR submission closely. He also welcomed the members fo the RPC and requested them for their constructive comments/ inputs to help the Council in improving its research program.

9. Address of the Chairperson was followed by Institute presentations (each Institute made four presentations, one each in four thematic sessions, each session dedicated to individual research Thrust Areas of the Council as per program in Appendix II) as per the presentation structure outlined above. The sequence of presentation followed was AFRI, FRI, HFRI, IFB, IFGTB, IFP, IWST, RFRI, and TFRI. The Directors of these Institutes made presentations in respect of all ICFRE funded ongoing projects, followed by presentation of cases where change of extension of duration/ change in budget/ change in objectives/ change in PI, etc., was required. An overview of all projects funded from sources other than ICFRE was also presented for information and concurrence of the RPC. It was followed by detailed presentations of new project proposals, duly recommended for approval by the Institute's Research Advisory Groups (the projects that were approved by the RPC during the year 2013 and 2014, but could not be taken up for implementation due to paucity of funds, were presented as new projects).

10. The 4 thematic sessions witnessed presentation on and review of the status of a total of 179 ongoing projects under implementation across ICFRE Institutes. 62 of these projects were reported to be successfully culminated during 2014-15. One project was approved for dropping from under ICFRE funding as it had got fund support from DST. The RPC considered requests

for change in project period, objectives, budget line, or the PI in respect of 30 ongoing projects and, after detailed deliberations, approved changes as requested in respect of 29 of the projects put up to it for consideration. The RPC could not assess 2 ongoing projects (one brought to the RPC for extension of project period and the other for review of results) due to non-availability of details and authorized the Chairperson to review and decide the approval/ non-approval status in respect of these two ongoing projects after getting detailed presentations by PIs on a later date. These presentations were held on 27 March 2015 and both the projects were decided to be terminated due to non-likelihood of getting any further significant outputs. The PIs of both these projects were advised to submit closure report/ PCR by the end of June 2015. Thus, with 62 projects successfully culminated during 2014-15, 1 project approved for dropping and 2 projects approved for termination, only 114 of the 179 ongoing projects were approved for continuation during 2015-2016.

(a) Detail of 2 projects approved for mid-term closure/ dropping from under ICFRE funded program is as under:

S. No.	Title of the Project	Institute	Action Approved	Remarks
1	Process Based Carbon sequestration study.  Dr. Hukum Singh, (2012-2017)	FRI	Approved for dropping	Approved for dropping from under ICFRE funded program as PI has now got funding from DST. Director FRI was requested to submit closure report of the project with physical and financial progress (of expenditure of Rs. 27.58 lakh) by June 2015 end, and include the progress on account of ICFRE funded part in the final report of the project also.
2	Enhancing fodder productivity through silvi-pasture system on degraded land of India.  Dr. Charan Singh; (2012-2017)	FRI	Mid-term closure	The project was presented to the DG, ICFRE on 27.03.2015 as decided by RPC. Since the first plantation failed due to natural reasons and the replanted saplings were too small to lead to any significant results even if the project continued till planned culmination, it was felt prudent to terminate the project forthwith. The Director FRI and the PI were advised to submit closure report of the project by June 2015 end.

(b) The RPC also granted *ex post facto* approval for change in the Co-PI and proposed modification of project objectives in respect of the following culminating projects in March 2015:

S. No.	Title of the Project	Institute	Action Approved	Remarks
1	Study on post flowering regeneration status of <i>Melocanna baccifera</i> in Tripura. P.I./ Co-PIs: Dr. Dhruba Jyoti Das, Scientist-D	RFRI	Ex post facto approval for proposed change granted	The project is already culminating in March 2015. Ex post facto approval granted to co-opt Dr. Kaushik as co-PI and for modification in short term objectives to (a) study post flowering status of <i>Melocanna baciferra</i> . (b)

	Shri A.K. Deka, DCF, 3 (2012-2015)			area estimation of Muli bamboo under regeneration using remote sensing and GIS as one of the tools; and (c) to quantify the growing stock of <i>Melocanna baciiferra</i> . The Director, RFRI was advised to ensure submission of the PCR by June 2015.
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(C) The RPC, based on the detailed presentation made by the PI to the DG, ICFRE on 27.03.2015, did not agree to extend the term of the following project and the same was advised to be closed w.e.f. 31 March 2015:

S. No.	Title of the Project	Institute	Action Approved	Remarks
1	Study on status of agro-forestry systems existing in Punjab, Haryana, Uttarakhand and North-west region of Uttar Pradesh. Sh. Sandeep Kujur (2012-2015)	FRI	Extension not agreed	Presentation of already collected data reflected no significant trends. The PI was asked to close the project at the present stage, analyse the data already collected and submit PCR by June 2015 end.

(d) The RPC critically reviewed the following project and took note of its repeated extensions on account of the progeny trials not bearing adequate fruit for undertaking laboratory tests for oil and azadirachtin content:

S. No.	Title of the Project	Institute	Action Approved	Remarks
1	Screening of high oil and Azadirachtin in Neem.  Dr. UK Tomar, (2002-2015, originally a 5-year project)	AFRI	Further extension under project mode not allowed.	The project was initiated as a follow up of a national project under which CPTs of Neem were collected from various parts of the country and assessed for their azadirachtin and oil and content. Seeds from 17 CPTs, assessed to have high oil and azadirachtin content, were used to raise progeny trials to assess heritability of the oil and azadirachtin characters of the identified 17 CPTs. Whereas the successful progeny trials have been raised, all trees have not borne adequate quantities of seed for carrying out laboratory tests on oil and azadirachtin content. Till date seed from only 34 trees has become available and tested. As it figures out, Neem is prone to frost damage and bearing of seeds can not be guaranteed, there was no use in continuing this activity under project

				mode. The RPC, therefore, advised the Director to take this project out of the project mode, keep on maintaining the progeny trials under FRE (Misc) budget allocated to the Institute, regularly monitor the trials, and undertaken laboratory trials as and when seeds from remaining trees become available. He was also advised to get detailed Status Report of the project compiled, including detailed background of the project and results of the tests already carried out.
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A total of 143 projects under implementation by ICFRE headquarters and Institutes with fund support from outside the ICFRE research program with a total budgetary outlay of Rs. 75.39 crores, were also put up for information and approval of the RPC. The members appreciated the efforts of the Institutes and research personnel of the Council in being able to obtain funding from various sources outside ICFRE and wished the projects a grand success.

11. The RPC scrutinized 127 new project proposals received with recommendations from the Institute level RAGs. These new proposals were grouped under the Council's Research Thrust Areas as under:

Thrust Area-1	= 56
Thrust Area-2	= 28
Thrust Area-3	= 05
Thrust Area-4	= 38

A total of 111 of these proposals (90 for funding from under ICFRE's research program budget and 21 for seeking funding from sources other than ICFRE) were approved. Projects with technical score of <70 were returned for recasting/ improving. The RPC could not assess 2 new project proposals due to want of details and authorized the Chairperson to review and decide the approval/ non-approval status in respect of these two project proposals after getting detailed presentations by PIs on a later date. Detailed presentations in respect of these 2 project proposals were conducted on 27 March 2015 and PIs of both these proposals were advised to suitably revise the proposals and explore possibilities of fund support from sources other than ICFRE.

12. Total budget outlay in respect of 114 ongoing projects approved for continuation during 2015-16 works out to Rs. 31.97 crore with budgetary requirement of Rs. 5.59 crore during the year 2015-16. Similarly, total budgetary outlay in respect of 90 new project proposals approved by the RPC for ICFRE funding totals up to Rs. 13.69 crore with budgetary requirement of Rs. 4.19 crore during the year 2015-16.

13. The RPC members expressed satisfaction over the progress of various ongoing projects, especially in view of the budgetary constraints highlighted during inaugural session. Efforts of the Institutions in garnering financial support for implementing the research program of the Council were especially lauded. Since budget was likely to remain a constraint during the year 2015-16 also, the RPC strongly recommended to –

- Accord first priority towards allocation of necessary budget to the ongoing projects.
- Prioritize the new approved project proposals in such a way that (a) the research work gets equitably distributed amongst the scientific manpower available with the Institutes and across

the research thrust areas of the Council, and (b) the projects getting high stakeholder priority could be taken up on priority.

- Initiate implementation of the prioritized projects only on availability of required funds, to ensure that projects are culminated as planned. Thin and inadequate distribution of available budget amongst new approved projects just to get these started should be discouraged.
- Take implementation of new approved projects in hand only after the PI submits the PCR(s) that might be pending submission from him. Directors of ICFRE Institutes will ensure completeness and quality of the PCRs.
- Continue making efforts to get funding from sources other than ICFRE for implementation of as many approved projects as possible.

14. RPC, during deliberations on the research program of the Council, took note of the present practice in the Council of (a) concept development and project prioritization method, and (b) preparing small stand-alone projects and subjected these issues to detailed discussions.

(a) Concept development and project prioritization method: The DDG (Research) informed the Committee that the concept development and project prioritization process being followed in the Council was in accordance with the National Forestry Research Plan and the operational guidelines adopted by the Council in 2002. The project ideas were generally based on the the issues raised by the stakeholders during formal and informal inreactions with them. The Project Prioritization process was based on ‘Weighted Criteria Method’ put in place by ICFRE for prioritization of all new projects (Ref: *Methodology for Setting Research Priorities for ICFRE*). Given below is an example of scoring on weight criteria in respect of project titled ‘A’:

S. No.	Criteria	Scaled Weight	Score by one RAG member
1	User’s needs (state research problem)	11	10
2	Scientific advancement	13	6
3	Scientific leadership to ICFRE	12	7
4	Importance of research themes (priority of research area)	9	9
5	Economic benefit (increase in productivity)	15	8
6	Improvement of environment quality	10	4
7	Chances of developing a patent	10	6
8	Poverty alleviation (creation of employment opportunity)	8	5
9	Historical trend (institute or researcher’s expertise)	7	6
10	Consumption of Resources (high consumption low score)	5	6

The scores given by the RAG member against the above ten criteria are then calculated into Index Score for the project as follows (*i.e. scores by the RAG member for the ten criteria are multiplied with the scaled weight for these criteria, and summed up*):

Index score of the Project ‘A’ by one member of RAG	$=11 \times 10 + 13 \times 6 + 12 \times 7 + 9 \times 9 + 15 \times 8 + 10 \times 4 + 10 \times 6 + 8 \times 5 + 7 \times 6 + 5 \times 6$ $=110 + 78 + 84 + 81 + 120 + 40 + 60 + 40 + 42 + 30$ $=685$
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Index scores by all RAG members (5 members, M-1 to M-5, in this example) for project ‘A’ are then summed up and averaged to arrive at ‘Average Index Score’.

<b>Average Index Score</b>	$[M-1 (685) + M-2 (610) + M-3 (650) + M-4 (582) + M-5 (705)] / 5 = 646.4$
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Thus, every new project is accorded an Average Index Score and it is this score that is used for prioritizing the research projects, i.e. higher the average index score, higher the project priority.

During discussions on the issue it came out that it was difficult to assess all the projects on all the 10 criteria used for according weighted average. Moreover, since the RAG members were not experts in all the subjects and it was difficult for them to objectively assess projects on different subjects on the given criteria. It often resulted in skewed rating of projects, the projects getting either overrated or underrated defeating the entire objective of the prioritization exercise.

The RPC recommended revisiting the entire project development and prioritization process through wider discussions, put up the draft modified methods to the next series of RAG meetings for further refinement, and present the revised scheme to the next RPC.

(b) Concept of preparing small stand-alone projects: Major percentage of projects that were being put to the RPC for approval were small and stand alone with no clear backward or forward linkages. This has, no doubt, resulted in generation of a lot of information and research outputs aimed at addressing issues of immediate concern of a diversity of stakeholders. However, most of this information and research outputs were widely scattered amidst subjects and themes and, thus, not amenable to be consolidated into comprehensive information packages from the Council, giving the impression that the Council was not delivering enough. The bottom up approach to develop projects based on stakeholder interactions as adopted by the Council needed to be reviewed. Whereas it would be necessary to continue with some small projects to address immediate research concerns of the stakeholders, it was suggested that ICFRE should consider allocating larger portion of its resources on inter-institutional multidisciplinary programs on issues of contemporary relevance to create better societal impact. For this to happen, ICFRE would need to put in practice well laid out implementation and monitoring processes for handling such programs. It was suggested to develop prototype of such program through wider consultation before the next RPC meeting.

15. Institute-wise detail of ongoing projects and new project proposals along with budgetary requirements is appended as Annexures I to IX. List of the completed projects is given in Annexure X. Information about the projects funded from sources other than ICFRE and those completed and submitted for external funding is given as Annexure-X. Short summary of the budgetary requirements for research projects, institute wise / thrust area wise break up / projects staff requirements is given in Tables from 1-6.

16. Dr. Ashwani Kumar, DG, ICFRE-cum-Chairman RPC, in his closing remarks, thanked all the RPC members for their valuable contributions. He assured them that the suggestions made by them about revisiting the Council's research project preparation and prioritisation methodology would be duly worked upon. He congratulated the Directors for bringing well thought out projects to the RPC and wished achievement of set objectives through efficient implementation of these projects. He commended the efforts of Dr. Goraya, DDG (Research) and Dr. Kothiyal, ADG (RP) for collecting, compiling the information and presenting comprehensive analysis of data on various aspects of research planning. He also complimented the team for effectively organizing the RPC meeting.

17. The meeting concluded with vote of thanks by DDG (Research)-cum-Member Secretary, RPC.

Approved

Approved by Director General, ICFRE (Chairman RPC) at N/13 of file  
72 (XVI)/2015/ICFRE(R)/RP on 5<sup>th</sup> May, 2015

## Total Budgetary Outlay for the Approved ICFRE Funded Projects

**Table 1a: Ongoing Projects for the year 2015-16**

Institutes	Total No. of Projects Presented		Total No. of Projects Approved	
	No. of Projects	Total Budget Outlay (Rs. In lakhs)	No. of Projects	Total Budget Outlay (Rs. In lakhs)
AFRI, Jodhpur	12	361.09	11	329.10
FRI, Dehradun	26	1062.21	22	1029.22
HFRI, Shimla	6	103.50	6	95.56
IFB, Hyderabad	3	71.7	3	66.53
IFGTB, Coimbatore	21	493.86	21	426.11
IFP, Ranchi	4	130.42	4	117.34
IWST, Bengaluru	14	232.22	14	218.39
TFRI, Jabalpur	11	509.31	11	487.32
<b>Sub Total</b>	<b>98</b>	<b>2964.31</b>	<b>92</b>	<b>2769.57</b>
RFRI, Jorhat	24	442.00	22	427.51
<b>Total (Rs lakhs)</b>	<b>121</b>	<b>3406.31 (or 34.06 crores)</b>	<b>114</b>	<b>3197.08 (or 31.97 crores)</b>

**Table 1b: New Approved Projects for the year 2015-16 for ICFRE funding**

ICFRE Institutes	Total No. of Projects Presented		Total No. of Projects Approved			
	No. of Projects	Total Budget Outlay (Rs. In lakhs)	Funding from ICFRE		Funding from other sources	
			No. of Projects	Total Budget Outlay (Rs. In lakhs)	No. of Projects	Total Budget Outlay (Rs. In lakhs)
AFRI, Jodhpur	13	200.80	11	179.12	2	29.37
FRI, Dehradun	28	367.76	17	226.72	8	92.75
HFRI, Shimla	12	168.47	8	145.34	1	6.74
IFB, Hyderabad	7	278.77	3	68.27	4	208.499
IFGTB, Coimbatore	25	590.42	18	366.68	3	143.08
IFP, Ranchi	7	124.49	6	77.90	0	0
IWST, Bengaluru	15	205.18	11	132.80	2	17.00
TFRI, Jabalpur	9	86.03	7	70.20	1	5.66
<b>Sub Total</b>	<b>116</b>	<b>2021.92</b>	<b>81</b>	<b>1267.03</b>	<b>21</b>	
RFRI, Jorhat	11	116.40	9	101.78	0	0
<b>Total (Rs lakhs)</b>	<b>127</b>	<b>2138.32</b>	<b>90</b>	<b>1368.81</b>	<b>21</b>	<b>503.10</b>

**Table 1c: Total Budgetary requirement of ICFRE Funded Projects for 2015 - 2016**

S. No.	Project Type	Total No. of Projects Approved	Total budget required for 2015-2016 (Rs in crores)		
			NE component	General budget	Total
1	Ongoing Projects for the year 2015-16	114	0.97	4.62	5.59
2	New Approved Projects for the year 2015-16	90	0.44	3.75	4.19
3	Budget requirement of miscellaneous research activities (other than research projects)	-	0.46	4.91	5.37
<b>G. Total:</b>		<b>204</b>	<b>1.87</b>	<b>13.28</b>	<b>15.15</b>

## Budgetary Requirement for the Approved ICFRE Funded Projects for the year 2015-16

**Table 2a: Budgetary Requirements for Ongoing Research Projects for 2015-16**

Institute	Sub head wise budgetary requirement (Rs in lakhs) for 2015-16 for ongoing projects					
	Consumables (M&S)	Research expenditure (FRE)	Travel And conveyance (Res)-TE	Capital (Scientific Equipments)	Fellowship	Total
AFRI, Jodhpur	8.21	20.05	4.3	2.3	18.48	53.34
FRI, Dehradun	16.84	52.53	7.23	26.00	23.04	125.60
HFRI, Shimla	1.83	4.65	2.5		6.3	15.28
IFB, Hyderabad	3.3	3.96	5.39	0.8	6.6	20.05
IFGTB, Coimbatore	24.84	28.81	19.77	12.6	32.54	118.56
IFP, Ranchi	8.76	6.54	3.05	1.1	6.41	25.86
IWST, Bengaluru	9.73	5.76	4.77	1.0	16.25	37.51
TFRI, Jabalpur	11.97	10.23	11.25	20.34	12.12	65.91
<b>Sub Total:</b>	<b>85.48</b>	<b>132.53</b>	<b>58.26</b>	<b>64.14</b>	<b>121.74</b>	<b>462.11</b>
<b>North East</b>						
RFRI, Jorhat	17.33	22.09	25.45	4.80	27.65	97.32
<b>Grand Total:</b>	<b>102.81</b>	<b>154.62</b>	<b>83.71</b>	<b>68.94</b>	<b>149.39</b>	<b>559.43</b>

**Table 2b: Budgetary Requirements for New Approved Research Projects for 2015-16**

Institutes	Sub Head wise budgetry requirement (Rs. in lakhs) for 2015-16 for new projects					
	Consumables (M&S)	Research expenditure (FRE)	Travel And conveyance (Res)-TE	Capital (Scientific Equipments)	Fellowship	Total
AFRI, Jodhpur	11.05	11.09	5.80	20.49	14.79	63.22
FRI, Dehradun	9.6	19.75	5.4	13.0	21.08	68.83
HFRI, Shimla	3.05	8.74	7.9	3.8	8.15	31.64
IFB, Hyderabad	3.4	2.99	1.6	5.11	6.22	19.32
IFGTB, Coimbatore	12.94	20.87	13.75	10.2	29.15	86.91
IFP, Ranchi	7.98	5.9	4.35	0.46	6.67	25.36
IWST, Bengaluru	8.15	10.94	4.31	23.95	12.42	59.77
TFRI, Jabalpur	2.95	4.52	4.2	0.75	7.08	19.5
<b>Sub Total:</b>	<b>59.12</b>	<b>84.8</b>	<b>47.31</b>	<b>77.76</b>	<b>105.56</b>	<b>374.55</b>
<b>North East</b>						
RFRI, Jorhat	4.23	9.28	6.83	15.5	8.23	44.07
<b>Grand Total:</b>	<b>63.35</b>	<b>94.08</b>	<b>54.14</b>	<b>93.26</b>	<b>113.79</b>	<b>418.62</b>

**Table 2c: Total Budgetary Requirement for ICFRE Funded Projects for 2015-16**

Institutes	Sub Head wise total budgetary requirement (Rs in lakhs) for 2015-16					
	Consumables (M&S)	Research expenditure (FRE)	Travel And conveyance (Res)-TE	Capital (Scientific Equipments)	Fellowship	Total
Ongoing project	85.48	132.53	58.26	64.14	121.74	462.11
New Projects	59.12	84.8	47.31	77.76	105.56	374.55
<b>Sub Total 1</b>	<b>144.6</b>	<b>217.33</b>	<b>105.57</b>	<b>141.9</b>	<b>227.3</b>	<b>836.66</b>
<b>North East (RFRI Jorhat)</b>						
Ongoing projects	17.33	22.09	25.45	4.80	27.65	97.32
New Projects	4.23	9.28	6.83	15.50	8.23	44.07
<b>Sub Total 2</b>	<b>21.56</b>	<b>31.37</b>	<b>32.28</b>	<b>20.3</b>	<b>35.88</b>	<b>141.39</b>
<b>Grand Total (1+2)</b>	<b>166.16</b>	<b>248.7</b>	<b>137.85</b>	<b>162.2</b>	<b>263.18</b>	<b>978.05 (or 9.78 crores)</b>

**Table 3: Budget Requirement for Miscellaneous Research Activities (for other than Research Projects)**

S. No.	Institutes	Consumables (M & S)	Research Expenditure (FRE)	Travel and Conveyance (Res - TE)	Maintenance of Scientific Equipments	RAG/ RPC Meetings	Total (Rs. in lakh)
1	AFRI, Jodhpur	2.00	15.00	5.00	3.00	1.00	26
2	FRI, Dehradun	23.00	219.50	9.50	33.00	1.75	286.75
3	HFRI, Shimla	2.25	5.00	2.00	2.00	1.25	12.5
4	IFB, Hyderabad	0.50	3.50	0.50	1.00	0.50	6
5	IFP, Ranchi	5.50	9.00	3.50	3.50	1.50	23
6	IFGTB, Coimbatore	5.00	31.50	5.50	33.00	2.00	77
7	IWST, Bengaluru	2.50	13.00	1.00	5.25	3.00	24.75
8	TFRI, Jabalpur	1.00	10.00	9.00	3.50	1.50	25
9	ICFRE (Hqrs)	0.00	5.00	3.00	0.00	2.00	10
<b>Sub Total A</b>		<b>41.75</b>	<b>311.50</b>	<b>39.00</b>	<b>84.25</b>	<b>14.50</b>	<b>491</b>
10(i)	RFRI, Jorhat	20.50	13.50	3.00	2.50	1.50	41
10(ii)	Mizoram & Aizawl Centres	0.50	3.00	1.00	0.50	0	5
<b>Sub Total B (10i+10ii)</b>		<b>21.00</b>	<b>16.50</b>	<b>4.00</b>	<b>3.00</b>	<b>1.50</b>	<b>46</b>
<b>Total (A+B)</b>		<b>62.75</b>	<b>328.00</b>	<b>43.00</b>	<b>87.25</b>	<b>16.00</b>	<b>537</b>

**Note 1:** Miscellaneous Research Activities include activities such as (a) maintenance of nurseries, old field trials, plantations, research plots, seed banks, field stations, etc. (b) maintenance of scientific equipment and laboratories, (c) patent fees, (d) implementation of estate working plans, (e) addressing research needs of emergent nature (insect attacks, diseases, fires), etc.

**Note 2:** The projected demand for Capital assets (scientific equipments) is Rs. 295.50 lakhs of ICFRE institutes. Considering the financial crunch the same is not considered only equipments given in research projects are approved.

**Table 4: Thrust areawise budget breakup for 2015-16 for ongoing and new projects**

		AFRI	FRI	HFRI	IFB	IFGTB	IFP	IWST	RFRI	TFRI	Total
<b>Thrust Area I</b>	Ongoing	22.25	47.34	10.82	0	5.93	0	26.92	25.99	11.99	151.24
	New	21.40	27.79	23.728	6.07	15.246	8.27	56.1	8.19	4.01	170.804
	<b>Total</b>	<b>43.65</b>	<b>75.09</b>	<b>34.55</b>	<b>6.07</b>	<b>21.18</b>	<b>8.27</b>	<b>83.02</b>	<b>34.18</b>	<b>16</b>	<b>322.01</b>
<b>Thrust Area II</b>	Ongoing	21.94	18.26	0	20.05	11.75	3.98	0	35.11	2.24	113.33
	New	16.66	3.14	1.86	6.256	8.946	5.23	0	35.88	13.15	91.122
	<b>Total</b>	<b>38.6</b>	<b>21.40</b>	<b>1.86</b>	<b>26.31</b>	<b>20.7</b>	<b>9.21</b>	<b>0</b>	<b>70.99</b>	<b>15.39</b>	<b>204.46</b>
<b>Thrust Area III</b>	Ongoing	0	0	4.46	0	6.1	0	0	5.35	0	15.91
	New	0	7.32	3.3	0	0	0	0	0	0	10.62
	<b>Total</b>	<b>0</b>	<b>7.32</b>	<b>7.76</b>	<b>0</b>	<b>6.1</b>	<b>0</b>	<b>0</b>	<b>5.35</b>	<b>0</b>	<b>26.53</b>
<b>Thrust Area IV</b>	Ongoing	9.15	60.00	0	0	94.78	21.876	10.58	30.88	51.68	278.946
	New	25.16	30.58	2.75	6.992	62.72	11.86	3.67	0	2.34	146.072
	<b>Total</b>	<b>34.31</b>	<b>90.58</b>	<b>2.75</b>	<b>6.99</b>	<b>157.5</b>	<b>33.74</b>	<b>14.25</b>	<b>30.88</b>	<b>54.02</b>	<b>425.02</b>
<b>Grand Total</b>		<b>116.56</b>	<b>194.39</b>	<b>46.92</b>	<b>39.37</b>	<b>205.48</b>	<b>51.22</b>	<b>97.27</b>	<b>141.40</b>	<b>85.41</b>	<b>978.02 (or 9.78 crores)</b>

**Table 5: Thrust area wise distribution of the ongoing and new projects**

<b>1 (a) Thrust Area wise summary of approved number of ongoing and new projects</b>											<b>Total</b>
		AFRI	FRI	HFRI	IFB	IFGTB	IFP	IWST	RFRI	TFRI	
<b>Thrust Area I</b>	Ongoing	5	17	5	0	1	0	10	7	6	51
	New	5	8	5	1	3	2	10	2	2	38
	<b>Total</b>	<b>10</b>	<b>25</b>	<b>10</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>20</b>	<b>9</b>	<b>8</b>	<b>89</b>
<b>Thrust Area II</b>	Ongoing	3	4	0	3	3	1	0	9	1	24
	New	2	1	1	1	2	1	0	7	4	19
	<b>Total</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>16</b>	<b>5</b>	<b>43</b>
<b>Thrust Area III</b>	Ongoing	0	0	1	0	2	0	0	1	0	4
	New	0	3	1	0	0	0	0	0	0	4
	<b>Total</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>8</b>
<b>Thrust Area IV</b>	Ongoing	3	1	0	0	15	3	4	5	4	35
	New	4	5	1	1	13	3	1	0	1	29
	<b>Total</b>	<b>7</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>28</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>64</b>
<b>Grand Total</b>		<b>22</b>	<b>39</b>	<b>14</b>	<b>6</b>	<b>39</b>	<b>10</b>	<b>25</b>	<b>31</b>	<b>18</b>	<b>204</b>

**Table 6: Summary of the required project staff in ongoing and new projects compiled on the information available during XVI RPC**

		AFRI	FRI	HFRI	IFB	IFGTB	IFP	IWST	RFRI	TFRI	Total
<b>Consultant</b>	<b>Ongoing</b>	0	0	0	0	0	0	0	0	0	<b>0</b>
	<b>New</b>	0	0	0	0	0	0	0	0	0	<b>0</b>
<b>RA</b>	<b>Ongoing</b>	0	0	0	0	0	0	0	0	0	<b>0</b>
	<b>New</b>	0	0	0	0	0	0	0	0	0	<b>0</b>
<b>SRF</b>	<b>Ongoing</b>	0	1	0	0	3	1	0	0	1	<b>6</b>
	<b>New</b>	0	0	0	0	0	0	0	0	0	<b>0</b>
<b>JRF</b>	<b>Ongoing</b>	3	2	0	0	10	1	3	5	2	<b>26</b>
	<b>New</b>	7	9	2	3	15	3	6	1	2	<b>48</b>
<b>PA</b>	<b>Ongoing</b>	0	9	1	1	0	0	2	4	0	<b>17</b>
	<b>New</b>	0	1	6	0	0	1	6	4	0	<b>18</b>
<b>FA</b>	<b>Ongoing</b>	5	2	6	0	5	3	0	12	7	<b>40</b>
	<b>New</b>	5	7	0	0	5	2	0	4	5	<b>28</b>
<b>Skilled/ Unskilled</b>	<b>Ongoing</b>	0	0	0	0	3	0	0	0	0	<b>3</b>
	<b>New</b>	0	3	0	1	2	0	0	1	0	<b>7</b>
<b>Total</b>	<b>Ongoing</b>	<b>8</b>	<b>14</b>	<b>7</b>	<b>1</b>	<b>21</b>	<b>5</b>	<b>5</b>	<b>22</b>	<b>10</b>	<b>92</b>
	<b>New</b>	<b>12</b>	<b>20</b>	<b>8</b>	<b>4</b>	<b>22</b>	<b>6</b>	<b>12</b>	<b>10</b>	<b>7</b>	<b>101</b>

## Arid Forest Research Institute, Jodhpur

## A. ONGOING PROJECTS (OG)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		

1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>											
<b>OG-1</b>	Tapping the potential of some selected indigenous lesser known wild edible plants for food and nutrition in arid and semi arid region. Dr. Mala Rathore, 5 years, 2011-2016	48.2 10.00	6.79	2.58	0.6	0.15	0.1	0	1.728	One JRF	Approved for continuation. Budget outlay revised to Rs. 10.00 lakhs from Rs 18.20 lakhs.
<b>OG-2</b>	Enhancing fodder productivity through silvipastoral systems on degraded land of India. PI: Dr. Ranjana Arya, 5 years, 2012-2017	20.50	6.42	4.19	1.3	1.6	0.45	0	0.84	One FA	Approved for continuation.
<b>OG-3</b>	Quantification value addition of NTFP and improved agricultural productivity to enhance livelihood opportunity in tribal belt of Sirohi District of Rajasthan. Smt. Sangeeta Tripathi, 5 years, 2012-2017	14.83	5.13	3.14	0.75	0.7	0.55	0.3	0.84	One FA	Approved for continuation.
<b>OG-4</b>	Carbon stock and soil classification mapping for Rajasthan forests, N. Bala, 4 years 2011-16	22.05	0.05	10.44	-	9	-	-	1.44	JRF-1	Approved for continuation.

**Annexure-I (AFRI)**

<b>OG-5</b>	Managing resources to enhance productivity of Agroforestry system in dry areas of Rajasthan. Dr. Bilas Singh, 4 Years, 2012-2016	10.00 5.50	3.16	1.9	0.46	0.5	0.1	-	0.84	<b>01 FA</b>	Approved for continuation. Total budget outlay of project revised to Rs 5.50 lakhs from Rs. 10.00 lakhs.
	<b>TOTAL</b>	<b>72.88</b>	<b>21.55</b>	<b>22.25</b>	<b>3.11</b>	<b>11.95</b>	<b>1.2</b>	<b>0.3</b>	<b>5.688</b>	<b>2 JRF, 3FA</b>	
<b>Thrust Area II: Biodiversity Conservation and Ecological Security</b>											
<b>OG-6</b>	Refinement of modern nursery practices for raising quality seedlings of selected important forest tree species of arid and semi arid areas. Dr. N.K. Bohra, 5 years, 2011-2016	28.066 12.50	8.54	3.79	0.5	2.25	0.2	0	0.84	FA, 01	Approved for continuation. Budget outlay revised to Rs. 12.50 lakhs from Rs. 28.07 lakhs.
	<b>TOTAL</b>	<b>12.50</b>	<b>8.54</b>	<b>3.79</b>	<b>0.5</b>	<b>2.25</b>	<b>0.2</b>	<b>0</b>	<b>0.84</b>	<b>1 FA</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>											
<b>Thrust Area IV: Forest Genetic Resources Management and Tree Improvement:</b>											
<b>OG-7</b>	Assessment of variability, improvement and refinement of cloning techniques of <i>Tecomella undulata</i> (sm.). Seem /Desha Meena, 5 years, 2012-2017	39	5.82	3.38	0.8	0.5	0.35	-	1.73	1 JRF	Approved for continuation
<b>OG-8</b>	All India Coordinated Project For Genetic Improvement of <i>Melia composite</i> . Pravin H. Chawhaan, 10 years, 2013-2022	86	4.675	3.04	0.1	1.5	0.6	-	0.84	1 FA	Approved for continuation
	<b>TOTAL</b>	<b>125</b>	<b>10.495</b>	<b>6.42</b>	<b>0.9</b>	<b>2</b>	<b>0.95</b>		<b>2.57</b>	<b>1 JRF 1 FA</b>	
	<b>GRAND TOTAL</b>	<b>210.38</b>	<b>40.585</b>	<b>32.46</b>	<b>4.51</b>	<b>16.2</b>	<b>2.35</b>	<b>0.3</b>	<b>9.098</b>	<b>3 JRF, 5 FA</b>	

## B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16					
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth: NIL</b>										
<b>Thrust Area II: Biodiversity Conservation and Ecological Security</b>										
<b>OG-9 CR-1</b>	Impact of <i>Prosopis juliflora</i> on biodiversity, rehabilitation of degraded community lands and as a source of livelihood for people in Rajasthan State. Ms. Seema Kumar, 5 years, 2010-2015(Change request)	<del>8.00</del> 5.00	3.20	1.5	0.2	0.6	0.7	0	0	Approved 2 <sup>nd</sup> extension for one year up to 2016. Budget outlay revised to Rs 5.00 lakhs from Rs 8.00 lakhs.
<b>OG-10 CR-2</b>	A coordinated project on integrated management of khejri mortality for socio-economic upliftment in Rajasthan. Dr. K.K. Shrivastva, 5 years, 2010-2015(Change request)	99.72	Rs 40.68 by January 2015	16.65	3	3	1	2	7.65	PI change from Sh. S.I. Ahmad to Sh. K.K. Shrivastava approved with two years extension up to 2017.
<b>Total</b>		<b>104.72</b>	<b>43.88</b>	<b>18.15</b>	<b>3.2</b>	<b>3.6</b>	<b>1.7</b>	<b>2</b>	<b>7.65</b>	
<b>Thrust Area III: Forests and climate changeNIL</b>										
<b>Thrust Area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>OG-11 CR-3</b>	Development of technologies for multiplication of economically important desert plant - <i>Capparis deciduas</i> . Dr Sarita Arya, 5 years, 2010-2015(Change request)	<del>14.72</del> 14.00	10.92	2.73	0.5	0.25	0.25	0	1.73	Approved for one year extension up to 2016. Budget outlay revised to Rs 14.00 lakhs from Rs 14.72 lakhs
<b>Total</b>		<b>14.00</b>	<b>10.92</b>	<b>2.73</b>	<b>0.5</b>	<b>0.25</b>	<b>0.25</b>	<b>0</b>	<b>1.73</b>	
<b>GRAND TOTAL</b>		<b>118.72</b>	<b>54.8</b>	<b>20.88</b>	<b>3.7</b>	<b>3.85</b>	<b>1.95</b>	<b>2</b>	<b>9.38</b>	

## C. New Projects:

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)					Required Manpower (RA/SRF/ JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16					
				Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)		

1	2	3	4	5	6	7	8	9	10	11	
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth: NIL</b>											
EF-1	Integrated management of <i>Atteva fabriciella</i> (Ailanthus webworm): an important defoliator of <i>Ailanthus excels.</i> Shiwani Bhatnagar, 3 years, 2015-18	15.28	-	-	-	-	-	-	-		Approved. For external funding from SFD.
NW-1	Green Synthesis of Nano particles and their Utilization. Dr. D.K. Mishra, 3 Years; 2015-18	10.87	3.99	1.2	1.00	0.25	0.10	1.44	1 JRF	Approved. Assess Punjab Agricultural Univ.'s (PAU) lab strength for possible collaboration	
NW-2	Studies on Seed Germination and Nursery Technology of <i>Anogeissus pendula.</i> S.L. Meena, 3 Years, 2015-18	11.66	3.83	0.4	1.29	0.8	0.50	0.84	1 FA	Approved. Modify objectives to include selection of high yielding germplasm and its multiplication	
NW-3	Integrated pest and disease management (IPDM) of important tree species in nurseries of Rajasthan. Seema Kumar, 5 years, 2015-2020	20.16	5.04	0.4	0.5	0.4	1.94	1.8	1 JRF, 1 FA	Approved	
NW-4	Selection of efficient AM fungi, PSBs and <i>Azospirillum</i> for productivity enhancement of <i>Dendrocalamus strictus</i> & <i>Bambusa bambos.</i> Dr. K.K. Srivastava, 4 years, 2015-2019	15.35	5.4	0.5	0.4	0.75	2.05	1.7	1 JRF	Approved	

**Annexure-I (AFRI)**

<b>NW-5</b>	Rehabilitation of salt affected soil with amendments of biofertilizer (AM Fungi). Bhawana Sharma, 3 Year, 2015-18	9.92	3.14	0.6	1.00	0.5	0.2	0.84	1 FA	Approved
	<b>TOTAL</b>	<del>83.24</del> <b>67.96</b>	<b>21.4</b>	<b>3.10</b>	<b>4.19</b>	<b>2.70</b>	<b>4.79</b>	<b>6.62</b>	<b>3 JRF, 3 FA</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security</b>										
<b>NW-6</b>	Diversity of pollinators and their role in fruit/ pod production of <i>Acacia senegal</i> , <i>Capparis decidua</i> and <i>Prosopis cineraria</i> (Tricuta) in Rajasthan, PI: Shiwani Bhatnagar, Duration: 3years, 2015-18	19.53	8.38	1.00	1.70	1.00	2.95	1.73	1 JRF	Approved
<b>NW-7</b>	Survey, evaluation and management of important insect-pests and diseases of <i>Anogeissus pendula</i> , Dr Shiwani Bhatnagar, 3 years, 2015-2018	18.81	8.28	2.00	1.70	1.00	2.95	0.63	1 FA	Approved
	<b>TOTAL</b>	<b>38.34</b>	<b>16.66</b>	<b>3.00</b>	<b>3.40</b>	<b>2.00</b>	<b>5.90</b>	<b>2.36</b>	<b>1 JRF, 1FA</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust Area IV: Forest Genetic Resources Management and Tree Improvement:</b>										
<b>NW-8</b>	Development of Tissue Culture protocol for economically important Bamboo- <i>Schizostachym dullooa</i> . Dr. Sarita Arya, 5 Years, 2015-2020	<del>15.72</del> 9.32	3.64	0.6	0.3	0.5	0.8	1.44	One JRF	Approved for 3 years (2015-2018). Budget outlay revised to Rs. 9.32 lakhs
<b>NW-9</b>	In silico identification of abiotic stress-tolerance candidate genes using co-expression network analysis and comparative genomic. Dr. Tarun Kant, 2 Years, 2015-2017	1.5	1	0	0	0	1	0	Nil	Approved

**Annexure-I (AFRI)**

<b>NW-10</b>	Screening of DNA Markers to Distinguish Male and Female <i>Ailanthus excelsa</i> Trees for Higher Biomass Production. Dr. U.K. Tomar, 3 Years, 2015-2018	16.00	7.08	2.35	0.5	0.5	2	1.73	One JRF	Approved. Daily wagers not allowed. Budget to be revised accordingly. Implementation of project will be allowed only after PI submits the pending PCR
<b>EF-2</b>	Identification of seed sources and factors contributing high seed viability in <i>Commiphora wightii</i> (Arnott). Dr. U. K. Tomar, 3 years, 2015-2018	14.09	-	-	-	-	-	-	-	Approved. For funding from NMPB. One PCR pending
<b>NW-11</b>	Identification of Juvenility Markers to Improve Rooting Potential of some Important Tree Species/Dr. Shivesh Rajput/4 Years/2015-2019	31.91	13.44	2	2.7	0.1	6	2.64	one JRF & one FA	Approved
	<b>TOTAL</b>	<del>79.22</del> 58.73	25.16	4.95	3.5	1.1	9.8	5.81	3 JRF, 1 FA	
	<b>GRAND TOTAL</b>	<del>200.80</del> 165.03	63.22	11.05	11.09	5.8	20.49	14.79	7 JRF, 5 FA	

**D. Budget Summary of Ongoing and New Projects:**

Sl. No.	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
1	<b>Ongoing Projects</b>	329.10	8.21	20.05	48.21	20.05	18.47	53.38	18 JRF, 5 FA	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
2	<b>New Projects</b>	165.03	11.05	11.09	5.8	20.49	14.79	63.22	7 JRF, 5 FA	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		<b>19.26</b>	<b>31.14</b>	<b>10.10</b>	<b>22.79</b>	<b>33.268</b>	<b>116.558</b>	<b>10 JRF, 10 FA</b>	

## Forest Research Institute, Dehradun

## A. ONGOING PROJECTS (OG)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>											
<b>OG-12</b>	Studies on diversity of egg parasitoid wasps, <i>Trichogramma</i> spp. from Punjab and Haryana and their application in biological control of important forest insect pests. Dr. Mohd. Yousuf, 4 Years, 2012 - 2016	<del>11.94</del> 11.50	8.63	2.32	0.25	0.65	0.40	0.00	1.02	1 PA	Approved for continuation. Budget outlay of project revised to Rs. 11.50 lakhs from Rs. 11.94 lakhs.
<b>OG-13</b>	Biology of hispine bamboo borer- <i>Estigmene chinensis</i> Hope. (Coleoptera: Chrysomelidae) damaging green standing bamboo and its management. Dr. K.P. Singh, 4 years, 2012 - 2016	<del>10.01</del> 9.50	6.66	2.69	0.3	2.24	0.15	0.00	0.00	nil	Approved for continuation. Total Budget outlay of project revised to Rs. 9.50 lakhs from Rs. 10.01 lakhs
<b>OG-14</b>	Development of model of some important medicinal plants with <i>Melia composita</i> and <i>Emblica officinalis</i> in degraded land of Punjab and Uttarakhand. Rambir Singh, 5 years, 2011 - 2016	<del>9.83</del> 4.75	2.64	1.80	0.02	0.80	0.14	0.00	0.84	1FA	Approved for continuation. Budget outlay of project revised to Rs. 4.75 lakhs from Rs. 9.83 lakhs.

**Annexure-II (FRI)**

<b>OG-15</b>	Allelopathic Potential in Regeneration of Sal ( <i>Shorea robusta</i> ) forests Dr. Ombir Singh, 5 years, 2011-2016	<del>13.43</del> 12.75	8.35	3.98	0.60	1.80	0.50	0.00	1.08	1 PA	Approved for continuation. Budget outlay of project revised to Rs. 12.75 lakhs from Rs. 13.43.
<b>OG-16</b>	Studies on working quality and finishing aspects of <i>Melia composite</i> . Dr. Kishan Kumar V.S., 4 years, 2012-2016	<del>18.48</del> 9.0	5.46	3.04	0.60	1.32	0.10	0.00	1.02	1PA	Approved for continuation. Budget outlay of project revised to Rs. 9.0 lakhs from Rs. 18.48
<b>OG-17</b>	Studies on natural durability of plantation grown species with conventional/ eco-friendly preservatives ( <i>Melia composita</i> ) Dr. Sadhna Tripathi, 5 years, 2012-2017	8.08	3.95	2.84	0.50	1.20	0.30	0.00	0.84	1 FA	Approved for continuation.
<b>OG-18</b>	Studies on performance of ZiBOC treated imported wood in different agro climatic condition, FRI-482/FPD(WP)-76, Dr. Sadhna Tripathi , 5 years 2009-2016	6.00	5.51	0.49	0.30	0.10	0.09	0.00	0.00	-	Approved for continuation.
<b>OG-19</b>	Development of suitable model for enrichment of selected Medicinal Plant Conservation Areas (MPCAs) of Uttarakhand Himalayas. Dr. B.P.Tamta, 5years, 2011- 2016	7.35	4.90	2.43	0.00	2.21	0.22	0.00	0.00	-	Approved for continuation.
	<b>Total</b>	<b>68.93</b>	<b>46.10</b>	<b>19.59</b>	<b>2.57</b>	<b>10.32</b>	<b>1.90</b>	<b>0.00</b>	<b>4.80</b>	<b>3 PA, 2FA</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>											
<b>OG-20</b>	Digitization of herbarium (Dehradun Herbarium) of Forest Research Institute. Ms. Ranjana Negi, 8 years, 2008-2016	61.13	47.79	6.9	Nil	0.3	Nil	Nil	6.6	5 PAs	Approved for continuation. PI to ensure completion within extended period.

**Annexure-II (FRI)**

<b>OG-21</b>	Inventorization, characterization and conservation strategies of selected rare and endangered plant species of India. Dr. Anup Chandra, 5 years, 2012-17	23.9	5.00	4.38	0.50	0.50	0.50		2.88	1 JRF, 1 PA	Approved for continuation
<b>OG-22</b>	Restoration of Sand Stone Mining Area of Vindhyan Region through Microbial Technology. Dr. Kumud Dubey, 5 years, 2012-2017	<del>29.45</del> 14.00	7.41	6.12	0.50	3.54	0.40	-	1.68	SRF-1	Approved for continuation. Total budget outlay revised to Rs 14.00 lakhs from Rs. 29.45 lakhs.
	<b>Total</b>	<b>99.03</b>	<b>60.2</b>	<b>17.4</b>	<b>1.00</b>	<b>4.34</b>	<b>0.9</b>	<b>0.00</b>	<b>11.16</b>	<b>1 SRF, 1JRF, 6 PA</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>											
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>											
<b>OG-23</b>	AICP on genetic improvement of <i>Melia composita</i> Wild. All India project coordinator: Dr. Ashok Kumar, 2012-17 Total Budget Outlay of AICP: <b>Rs. 719.56 lakhs</b>	Not provided by FRI	45.43	60.00	8.00	30.06	2.50	18.00	1.44	1 JRF	Approved for continuation
	<b>Total</b>	<b>719.56</b>	<b>45.43</b>	<b>60.00</b>	<b>8.00</b>	<b>30.06</b>	<b>2.50</b>	<b>18.00</b>	<b>1.44</b>	<b>1 JRF</b>	
	<b>Grand Total</b>	<b>887.52</b>	<b>151.73</b>	<b>96.99</b>	<b>11.57</b>	<b>44.72</b>	<b>5.30</b>	<b>18</b>	<b>17.40</b>	<b>1 SRF, 2 JRF, 9 PA, 2 FA</b>	

## B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16					
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
<b>OG-24 CR-4</b>	Assessment of ecosystem services imparted by forest of Uttarakhand / Dr Parmanand Kumar/ (2012-2017) This project is part of a networking project.(Change request)	69.74	0.00	13.72	0.80	2.0	1.00	8.00	1.92	Approved change in the title to “Assessment of hydrological services imparted by forest of Kempty watershed (Mussoorie)”. Approved extension of time period to 2012 -2019. PI to explore external funding also.
<b>OG-25 CR-5</b>	Process refinement for extraction of quality fiber and optimal isolation of bioactive constituents from <i>Agave sisalana</i> . Dr. Y.C. Tripathi, 5 years, 2011-2015(Change request)	8.40	6.19	2.14	0.20	0.50	0.00	0.00	1.44	Approved 2 <sup>nd</sup> extension up to 2016 with provision of JRF within sanctioned budget outlay.
<b>OG-26 CR-6</b>	Phytochemical screening of selected wild edible plants for exploration of new sources of Luteolin. Dr. Y.C. Tripathi , 4 years, 2011-2015(Change request)	8.65	5.93	2.54	0.50	0.50	0.10	0.00	1.44	Approved 2 <sup>nd</sup> extension up to 2016 with provision of JRF within sanctioned budget outlay.
<b>OG-27 CR-7</b>	Structural studies and utilisation of <i>Acacia tortilis</i> gum exudates Dr. Vineet Kumar, 3 years, 2012-2015(Change request)	4.5	2.8	1.7	1.0	0.60	0.10	0.00	-	Approved extension up to 2016. Total expenditure not to exceed approved budget outlay.

**Annexure-II (FRI)**

<b>OG-28 CR-8</b>	Utilisation of <i>Pinus roxburghii</i> needles for value added products Dr. Vineet Kumar, 3 years, 2012-2015( <b>Change request</b> )	14.50	2.5	2.00	0.80	0.36	0		0.84	Approved extension up to 2016 within approved budget outlay.
<b>OG-29 CR-9</b>	Prospecting fungal resources for development of natural dye .Dr. Rakesh Kumar, 3 years, 2012-2015( <b>Change request</b> )	6.18	3.84	2.00	0.30	1.50	0.20	0.00	0.00	Approved one year extension up to 2016 with approved budget outlay.
<b>OG-30 CR-10</b>	Study on the performance of treated timbers (ZiBOC, CCB and CCA) and their natural durability in cooling tower. Dr Sadhna Tripathi, 5 years, 2010 – 2015 ( <b>Change request</b> )	9.63	Not provided by Institute	0.78	0.00	0.70	0.08	0.00	-	Approved one year extension up to 2016 within approved budget outlay.
<b>OG31 CR-11</b>	Development of composites of lops and tops of <i>Melia composite</i> . D.P. Khali, 3 years, 2012-2015( <b>Change request</b> )	<del>8.10</del> 6.75	3.97	2.36	1.06	1.10	0.20	0.00	-	Approved one year extension up to 2016. Budget outlay revised to Rs 6.75 lakhs from Rs. 8.10 lakhs
<b>OG-32 CR-12</b>	To Develop Medium Density Fiber Board from lops and tops of poplar. Ismita Nautiyal , 3 years, 2012-2015( <b>Change request</b> )	7.35	Not provided by Institute	0.55	0.20	0.35	0.00	0.00	-	Approved one year extension up to 2016 within approved budget outlay.
	<b>Total</b>	<b>135.70</b>	<b>25.23</b>	<b>27.75</b>	<b>4.86</b>	<b>7.61</b>	<b>1.68</b>	<b>8.00</b>	<b>5.64</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>										
<b>OG-33 CR-13</b>	Studies on Taxonomy of the Family <b>Eulophidae</b> (Hymenoptera: Chalcidoidea) present in National Forest Insect Collection (NFIC), except Doon Valley. Dr Sudhir Singh, 5 Years, 2010 – 2015( <b>Change request</b> )	6.00	5.14	0.86	0.41	0.20	0.25	0	Nil	Approved for one year extension upto 2016 within approved budget outlay.
	<b>Total</b>	<b>6.00</b>	<b>5.14</b>	<b>0.86</b>	<b>0.41</b>	<b>0.20</b>	<b>0.25</b>	<b>0</b>	<b>Nil</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust Area IV: Forest Genetic Resources Management and Tree Improvement : Nil</b>										
	<b>GRAND TOTAL</b>	<b>141.70</b>	<b>30.37</b>	<b>28.61</b>	<b>5.27</b>	<b>7.81</b>	<b>1.93</b>	<b>8</b>	<b>5.64</b>	

## C. New Projects

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/ JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)	
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16							
				Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res- TE)	Capital (Scientific Equipments)	Fellowship			
1	2	3	4	5	6	7	8	9	10	11	
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>											
<b>EF-3</b>	Assessment of clones of <i>Populus deltoides</i> Bartr. ex Marsh on the basis of wood anatomical properties and specific gravity. Dr P.K. Pande, 3 years, 2015-2018	12.80	-	-	-	-	-	-	-	-	Approved. For external funding from SFD.
<b>NW-12</b>	Preparation and applications of cationized nano-cellulosic strength agents for paper making. Dr. Vikas Rana, 3 years, 2015-2018	12.47	7.79	0.50	0.15	0.00	5.70	1.44	One JRF	Approved. PI to explore external funding from Industry/ others. Implementation of project will be allowed only after PI submits the pending PCR of RFRI.	
<b>EF-4</b>	Phytochemical analysis and utilization of <i>Sida acuta</i> . Dr Vineet Kumar, 3 year, 2015-2018	9.10	-	-	-	-	-	-	-	Approved. For funding from external sources viz. industry.	
<b>EF-5</b>	Drying studies on selected species of chemically bulked bamboos using Dehumidifier kiln. N K Upreti, 2 years, 2015-2017	5.60	-	-	-	-	-	-	-	Approved. For funding from external sources viz. NBM.	

**Annexure-II (FRI)**

<b>EF-6</b>	Assessment of soil carbon flux under different forest types of Sal in Uttarakhand. Dr. Parul Bhatt Kotiyal, 3 years, 2015-2018	7.28	-	-	-	-	-	-	-	Approved. For external funding from SFD. Implementation of project will be taken up only after PI submits the pending PCR.
<b>NW-13</b>	Value addition and Utilization of <i>Cassia tora</i> seeds. Pradeep Sharma, 3 years, 2015-2018	12.21	4.58	1.00	0.95	0.05	1.50	1.08	One JRF	Approved. Implementation of project will be allowed only after PI submits the pending PCR.
<b>EF-7</b>	Studies on Fibers morphology of Indian Hardwoods and Development of Database for their efficient utilization by industry. Dr Sangeeta Gupta, 3 years, 2015-2018	10 .00	-	-	-	-	-	-	-	RPC recommended PI to make separate detailed presentation which was held on 27th March 2015 at ICFRE. The project is finally approved for exploring external funding. 1 PCR pending.
<b>NA-1</b>	Evaluation of Poplar clones in Eastern UP. Dr. Anita Tomar, 5 years, 2015-2020	16.0	-	-	-	-	-	-	-	Consult literature/ UP Forest Department for past efforts on introduction of Poplar in Eastern UP. Recast the project and submit for funding from UP SFD.
<b>NW-14</b>	Assessment of suitable clones of Eucalyptus for promotion of agro forestry in Eastern UP. Dr Anubha Srivastav, 5 years, 2015-2020	8.43	2.13	-	1.30	0.20	-	0.63	1 FA	Approved with modification i.e. take Eucalyptus species known to be suitable for northern India, and follow species-level trials with clonal trials. Resubmit project for final approval by Chairman RPC after suggested modifications.

**Annexure-II (FRI)**

<b>EF-8</b>	Studies on finishing aspects of <i>Dendrocalamus strictus</i> . Dr VS Kishan Kumar, 3 years, 2015-2018	18.30	-	-	-	-	-	-	-	Approved. For funding from external sources viz. NBM
<b>NW-15</b>	Production of reducing sugars through pre-treatment of lignocellulosic biomass for bioethanol. Dr. P. K. Gupta, 3 years, 2015-2018	8.84	2.48	0.40	0.25	0.10	-	1.73	One JRF	Approved
<b>NW-16</b>	Chemical examination and value addition of edible mushroom <i>Astraeus hygrometricus</i> . Dr. V K Varshney, 3 years, 2015-2018	6.66	2.08	1.00	0.25	0.20	-	0.63	One PA	Approved. Implementation of project will be allowed only after PI submits the 2 pending PCRs.
<b>NW-17</b>	Use of near infrared spectroscopy for rapid evaluation of physical and strength properties of <i>Melia composita</i> PI: Dr. Y. M. Dubey, Duration: 03 Years, 2015-2018	5.70	1.85	0.10	1.60	0.15	-	-	-	Approved. Project period reduced to two years. PI to recast the project accordingly & submit recasted project to Chairman RPC.
<b>NW-18</b>	Effect of different adhesives on the bending strength of finger jointed Eucalyptus sections. Dr. Kishan Kumar, 3 years, 2015-2018	14.08	3.28	0.50	1.45	0.25	0.00	1.08	One JRF	Approved
<b>NW-19</b>	New Forest Handicraft Extension Counter at FRI. Dr. K.P. Singh, 2 years, 2015-2017	6.60	3.60	-	0.60	-	-	3.0	One skilled worker (SW)	Approved. Shift from under research to Extension Directorate.
	<b>TOTAL</b>	<b>144.07</b> <b>74.99</b>	<b>27.79</b>	<b>3.50</b>	<b>6.55</b>	<b>0.95</b>	<b>7.20</b>	<b>9.59</b>	<b>4JRF, 1FA, 1PA, 1 SW</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security</b>										
<b>NA-2</b>	Tree health status in landslide affected areas of Kedar valley, Uttarakhand. Dr. Ashwani Tapwal, 3 years, 2015-2018	10.71	-	-	-	-	-	-	-	Not Approved. Project objectives and logic not brought out well.

**Annexure-II (FRI)**

<b>NA-3</b>	Effect of forest fire on forest vegetation and soils on the forests of Uttarakhand. Dr. B M Dimri, and Dr. V K Dhawan 3 years, 2015-2018	15.96	-	-	-	-	-	-	-	Not Approved. Gap in knowledge not brought out well.
<b>NW-20</b>	Development and extension of <i>Trichoderma</i> spp. Based formulation for disease biocontrol and plant growth promotion of eucalypts seedlings. Dr. Amit Pandey, 3 years, (2015-2018)	<del>14.08</del> 11.56	<del>3.98</del> 3.14	0.50	0.90	0.30	0.00	<del>2.28</del> 1.44	One JRF & one FA	Approved at reduced budget outlay of Rs. 11.56 lakhs (FA not approved). Implementation of the project is subject to submission of one pending PCR
<b>A</b>	Impact assessment of forest fire on ecology and forest vegetation on the forests of Uttarakhand. Dr. V K Dhawan, 3 years, 2015-2018	<b>As per RAG's recommendations, this project has been merged with project at sl no. NA-3 above that is not approved.</b>								
	<b>TOTAL</b>	<b>40.75</b> <b>11.56</b>	<b>3.14</b>	<b>0.5</b>	<b>0.9</b>	<b>0.3</b>	<b>0.00</b>	<b>1.44</b>	<b>1 JRF, 1FA</b>	
<b>Thrust Area III: Forests and climate change</b>										
<b>NW-21</b>	Compilation of biomass studies from various sources and development of BEF and R:S from the available data. Dr. Laxmi Rawat, 2 years, 2015-2017	2.88	1.44	0.00	0.40	0.20	0.00	0.84	One FA/ Computer operator	Approved in principle. Recast the project by specifying the species to be worked upon and resubmit
<b>NW-22</b>	Analysis of climatic data of New Forest for working out changing trends of various climatic variables over recent past. Dr. Laxmi Rawat, 2 years, 2015-2017	2.88	1.44	0.00	0.40	0.20	0.00	0.84	1 FA/ Computer operator	Approved
<b>NW-23</b>	Study on adaptive response of plants to elevated CO <sub>2</sub> conditions. Dr Hukum Singh, 3 Years, 2015-2018	<del>32.62</del> 20.32	<del>16.74</del> 4.44	1.50	1.00	0.50	<del>12.3</del> 0.00	1.44	One JRF	Approved minus equipment. Total budget revised to Rs 20.32 lakhs and first year budget to Rs 4.44 lakhs
	<b>TOTAL</b>	<b>38.38</b> <b>26.08</b>	<b>7.32</b>	<b>1.50</b>	<b>1.80</b>	<b>0.90</b>	<b>0.00</b>	<b>3.12</b>	<b>1 JRF, 2 FA, 2 computer operator</b>	

**Annexure-II (FRI)**

<b>Thrust Area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>NW-24</b>	Selection of Superior Quality Germplasm of <i>Oroxylum indicum</i> - an endangered species. Dr. B.P Tamta, 3 Years , 2015-2018	11.46	3.88	0.50	1.50	0.80	0.00	1.08	One JRF	Approved
<b>EF-9</b>	Screening of Germplasm of selected medicinal plants for quality planting material / PI- Dr. Pradeep Sharma, 2years, 2015-2017	9.48	-	-	-	-	-	-	-	Approved for funding from NMPB. One PCR pending
<b>NW-25</b>	Clonal propagation of newly developed superior hybrids/ genotypes of Eucalypts and their deployment in the field (Phase-III), Dr. Parveen, 3 years, 2015-2018	18.78	6.26	0.00	3.50	0.60	0.00	2.16	2 FAs	Approved in principle. Recast the project for five years as seed origin progeny needs more time for observations to select the best performers. The progeny at present is young for such observations. Implementation of project will be allowed only after PI submits two pending PCRs.
<b>NW-26</b>	Field evaluation of recombinants emanating from F <sub>1</sub> and F <sub>2</sub> generations of <i>Corymbia citriodora</i> (Syn. <i>Eucalyptus citriodora</i> ) Hook. × <i>C. torelliana</i> (Syn. <i>Eucalyptus torelliana</i> ) F.v. Muell for high productivity (Follow up Project), Dr. Ajay Thakur, 6 years, 2015-2021	18.75	1.76	0.10	0.80	0.05	0.00	0.81	One FA	Approved. The PI to specify the rotation age & use for which evaluation is being made viz. for timber, pulp, veneer. Implementation of project will be allowed only after PI submits two pending PCR.
<b>NW-27</b>	Genetic diversity and adaptability through morphological and molecular markers in <i>Dalbergia sissoo</i> Roxb. Dr. Ashok Kumar, 3 years, 2015-2018	24.86	11.54	2.50	2.00	0.60	5.00	1.44	One JRF	Approved. PI to establish sexual behaviour (self/ cross pollination). Co-dominant markers.

**Annexure-II (FRI)**

<b>NW-28</b>	Selection and genetic evaluation of <i>Ailanthus excels</i> germplasm in Northern India. Dr. Rama Kant, 4 years, 2015-2019	<del>41.04</del> 40.24	07.14	1.00	2.70	1.20	<del>0.80</del> 0.00	1.44	One JRF	Approved minus capital. Re-look and revise budget of Rs 40.24
<b>EF-10</b>	Development of Microsatellite and DNA Barcoding based methods for tracing timber origin for <i>Cedrus deodara</i> . Dr Santhan Bathwal, 3 years, 2015-2018	20.19	-	-	-	-	-	-	-	RPC recommended PI to make separate detailed presentation which was held on 27th March 2015 at ICFRE. The project is approved. PI to keep in mind cross-pollinated nature of the species & explore funding from other sources.
	<b>TOTAL</b>	<del>144.56</del> <b>114.09</b>	<b>30.58</b>	<b>4.10</b>	<b>10.50</b>	<b>3.25</b>	<b>5.80</b>	<b>6.93</b>	<b>3 JRF, 3 FA</b>	
	<b>GRAND TOTAL</b>	<del>367.76</del> <b>226.72</b>	<b>68.83</b>	<b>9.60</b>	<b>19.75</b>	<b>5.4</b>	<b>13.00</b>	<b>21.08</b>	<b>09 JRF, 1 PA, 7 FA, 2 computer operator, 1 skilled worker</b>	

**D. Budget Summary of Ongoing and New Projects**

10	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
1	Ongoing Projects	1029.22	16.84	52.53	7.23	26.00	23.04	125.60	1 SRF, 2 JRF, 9 PA, 2 FA	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
2	New Projects	226.72	9.60	19.75	5.4	13.00	21.08	68.83	09 JRF, 1 PA, 7 FA, 2 computer operator, 1 skilled worker	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		26.44	72.28	12.63	39.00	44.12	194.43	1 SRF, 11 JRF, 10 PA, 9 FA, 2 computer operator, 1 skilled worker	

## Himalayan Forest Research Institute, Shimla

## A. ONGOING PROJECTS (OG)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>											
OG-34	Determination of nursery requirements and initial planting performance of <i>Diploknema butyracea</i> (Roxb.) H. J. Lam and <i>Myrica esculenta</i> Buch. Ham. under mid-hill conditions of Himachal Himalayas. Dr Sandeep Sharma, 5 years, 2012-2017	15.50	7.38	2.87	0.18	1.50	0.35	--	0.84	FA-01	Approved for continuation.
OG-35	Studies on Seed Germination and longevity of <i>Abies spectabilis</i> (D. Don) Spach. Sh P S Negi, 5 years, 2011-2016	<del>15.75</del> 11.75	08.00	3.24	0.45	1.25	0.70	--	0.84	FA-01	Approved for continuation. Budget outlay of project revised to Rs. 11.75 lakhs from Rs. 15.75 lakhs.
OG-36	Status, Survey and Mapping of Ashtavarga Group of Medicinal and Aromatic Plants (MAPs) in Himachal Pradesh. Dr Vaneet Jishtu, 5 years, 2012-2017	19.75	03.00	4.71	0.70	1.20	0.95	--	1.86	FA-02	Approved for continuation.
<b>TOTAL</b>		<b>47.00</b>	<b>18.38</b>	<b>10.82</b>	<b>1.33</b>	<b>3.95</b>	<b>2</b>		<b>3.54</b>	<b>4 FA</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:NIL</b>											

## Annexure-III (HFRI)

<b>Thrust Area III: Forests and climate change:</b>											
<b>OG-37</b>	Assessment of Carbon Stock in Forest Types of Shimla Forest Circle, Himachal Pradesh. Dr R K Verma, 5 years, 2011-2016	24.94 21.00	16.09	4.46	0.50	0.70	0.50	--	2.76	PA - 01 FA - 02	Approved for continuation. Budget outlay revised to Rs. 21.00 lakhs from 24.94 lakhs.
	<b>TOTAL</b>	<b>21.00</b>	<b>16.09</b>	<b>4.46</b>	<b>0.50</b>	<b>0.70</b>	<b>0.50</b>	<b>--</b>	<b>2.76</b>	<b>1 PA 2 FA</b>	
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement: NIL</b>											
	<b>GRAND TOTAL</b>	<b>68.00</b>	<b>34.47</b>	<b>15.28</b>	<b>1.83</b>	<b>4.65</b>	<b>2.5</b>		<b>6.3</b>	<b>1 PA, 6 FA</b>	

**B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR):**

<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>											
S. No.	Title of the project/ PI/ Duration ( Start and end year)	Total budget outlay (Rs. in lakhs)	Approx. expenditure till 31 <sup>st</sup> March 2015	Budget required for 2015-16 (Rs in lakhs)						Recommendations of RPC (2015-2016)	
				Budget requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel And Conveyance (Res)-TE	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>											
<b>OG-38 CR-14</b>	Study on the influence of climate on bionomics of <i>Pityogenes scitus</i> Blanford (Coleoptera: Scolytidae) in Himachal Pradesh. Ranjeet Singh, 5 years, 2010-15( <b>Change request</b> )	19.00	Not provided by Institute	4.33	0.95	1.30	0.40	--	1.68	Approved for one year extension up to 2016.	
<b>OG-39 CR-15</b>	Biology and Management of Insect pests of seeds of <i>Juniperus polycarpus</i> C. Koch and evaluating the insect-pests resistance performance in the nursery. Ranjeet Singh, 3 years, 2012-2015 ( <b>Change request</b> )	8.56	Not provided by Institute	1.52	0.20	0.30	0.30	--	0.72	Approved for one year extension up to 2016	
	<b>Total</b>	<b>27.56</b>		<b>5.85</b>	<b>1.15</b>	<b>1.6</b>	<b>0.7</b>	<b>-</b>	<b>2.4</b>		
<b>Thrust Area II: Biodiversity conservation and ecological security: NIL</b>											
<b>Thrust Area III: Forests and climate change: NIL</b>											
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement: NIL</b>											
	<b>Total</b>	<b>27.56</b>		<b>5.85</b>	<b>1.15</b>	<b>1.6</b>	<b>0.7</b>	<b>-</b>	<b>2.4</b>		

## C. NEW PROJECTS:

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/ JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
				Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res- TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
NW-29	Survey and evaluation of silvipastoral systems in Himachal Pradesh and its role in sustaining community livelihood. V.P. Panwar, 5 years, 2015-2020	25.00	5.56	0.70	1.92	1.50	--	1.44	JRF-01	Approved
A-1	Developing agro-techniques of <i>Fritillaria roylei</i> Hook.f., an important plant of the Ashtavarga Group of Medicinal and Aromatic Plants (MAPs) in Himachal Pradesh. Dr. V.P. Panwar, 5 years, 2015-2020	10.00	-	-	-	-	-	-	-	Project merged with revised project at serial no. NW 30 and the PI to submit project after merger.
A-2	<b>Original title:</b> Diversity and ecological Significance of Beetles (Insect: Coleopteran) in Great Himalayan National Park Conservation Area (GHNPCA) HP, India <b>New:</b> Studies on changing Forest Insect-pest status under stress forest ecosystem in Himachal Pradesh. Dr. Ranjeet Singh, 5 years, 2015-2020	-	-	-	-	-	-	-	-	The project is dropped from here and merged with project at serial no. 33 entitled "Studies on changing Forest Insect-pest status of high altitudinal transitional zone and their management in Himachal Pradesh".

**Annexure-III (HFRI)**

<b>NW-30</b>	Standardization of nursery and propagation methods of <i>Trillium govanianum</i> Wall.exD.Don (Nag. Chhatri). Sh. Jagdish Singh, 3 years, 2015-2018	17.30	5.87	0.50	1.87	1.95	0.70	0.85	PA-01	Approved. Project at serial no A-1 merged with this project and the PI to submit project after suggested merger with A1.
<b>NW-31</b>	Approved Title: Standardization of agro-techniques and evaluation of growth parameters of <i>J. polycarpus</i> C. Koch under nursery and field conditions. Original Title: Standardization of nursery techniques and evaluation of growth parameters of <i>Juniperus polycarpus</i> C. Koch under Nursery conditions. Sh. P S Negi, 5 years, 2015-2020	19.48	2.70	0.25	1.00	0.60	--	0.85	PA-01	Approved. PI to evaluate growth parameters under both nursery and field conditions. Accordingly change in title. PI to modify the project accordingly.
<b>NW-32</b>	Analyzing impact of control burning on plant diversity and soil properties in chirpine forests. Dr. Ranjeet Kumar, Sci-D, 4 years, 2015-2019	11.00	2.238	0.30	0.20	0.55	--	1.188	JRF-01	Approved. PI to ensure that trial plots are saved from wild fire during project period.
<b>NW-33</b>	Studies on changing Forest Insect-pest status of high altitudinal transitional zone and their management in Himachal Pradesh. Dr. Ranjeet Singh, 5 years, 2015-2020	25.00	7.36	0.60	0.80	1.70	2.10	2.16	PA-02	Approved. Project at serial no A-2 merged with this project and the PI to submit project after suggested merger.
	<b>Total</b>	<del>107.78</del> <b>97.78</b>	<b>23.728</b>	<b>2.35</b>	<b>5.79</b>	<b>6.3</b>	<b>2.8</b>	<b>6.488</b>	<b>2 JRF, 4 PA</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>										
<b>NA-4</b>	Assessment of vegetation in Kibber Wild Life Sanctuary, Distt. Lahaul Spiti, Himachal Pradesh. PI:Dr. Ranjeet Kumar, Sci-D, 3 years , 2015-2018	06.39	-	-	-	-	-	-	-	Not Approved. RPC members were of the opinion that a lot of work has already been done in the area and satisfactory gap analysis for taking up study not done.

**Annexure-III (HFRI)**

NW-34	Ecological studies in Alpine pastures of District Shimla, Himachal Pradesh. Dr. RK Verma, 4 years, 2015-2019	20.80	1.86	0.25	0.15	0.65	-	0.81	PA-01	Approved. PI to study the spread of unpalatable species, especially around deras/padao of graziers.
	<b>TOTAL</b>	<del>27.19</del> <b>20.80</b>	<b>1.86</b>	<b>0.25</b>	<b>0.15</b>	<b>0.65</b>	<b>-</b>	<b>0.81</b>	<b>1 PA</b>	
<b>Thrust Area III: Forests and climate change:</b>										
EF-11	Air pollution tolerance of woody vegetation and physic-chemical properties of soil along the highway from Shimla to Sundernagar. Dr. Ranjeet Kumar, Sci-D , 3 years , 2015-2018	06.74	-	-	-	-	-	-	-	Approved. For external funding viz. PCB.
NW-35	Carbon sequestration potential of existing land use system in Lahaul Valley, Himachal Pradesh. Dr. K S Kapoor, 5 years, 2015-2020	20.80	3.30	0.40	1.00	0.65	0.40	0.85	PA-01	Approved. PI to include appropriate vulnerable site in Kangra in the project. He should also use FSI data on the subject and try to develop own carbon estimation index
	<b>TOTAL</b>	<del>27.54</del> <b>20.80</b>	<b>3.30</b>	<b>0.40</b>	<b>1.00</b>	<b>0.65</b>	<b>0.40</b>	<b>0.85</b>	<b>1 PA</b>	
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
NW-36	Standardization of grafting technique in <i>Cedrus deodara</i> (Roxb.) G. Don. Dr. Rajesh Sharma, 3 years, 2015-2018	05.96	2.75	0.05	1.80	0.30	0.60	--	--	Approved
	<b>TOTAL</b>	<b>05.96</b>	<b>2.75</b>	<b>0.05</b>	<b>1.80</b>	<b>0.30</b>	<b>0.60</b>	<b>--</b>	<b>--</b>	
	<b>GRAND TOTAL</b>	<del>168.47</del> <b>145.34</b>	<b>31.638</b>	<b>3.05</b>	<b>8.74</b>	<b>7.9</b>	<b>3.8</b>	<b>8.148</b>	<b>2 JRF, 6 PA</b>	

**D. Budget Summary of Ongoing and New Projects**

Sl. No.	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
<b>1</b>	<b>Ongoing Projects</b>	95.56	1.83	4.65	2.5		6.3	15.28	<b>1 PA, 6 FA</b>	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
<b>2</b>	<b>New Projects</b>	145.34	3.05	8.74	7.9	3.8	8.148	31.638	<b>2 JRF, 6 PA</b>	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		<b>4.88</b>	<b>13.39</b>	<b>10.4</b>	<b>3.8</b>	<b>14.448</b>	<b>46.918</b>	<b>2 JRF, 7 PA, 6 FA</b>	

## Institute of Forest Biodiversity, Hyderabad

### A. ONGOING PROJECTS (OG)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth: NIL</b>											
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>											
<b>OG-40</b>	The successional trends and productivity studies in Sriharikota (SHAR) and Pulicat lake ecosystem for conservation of Biodiversity. Dr G R S Reddy, 3 years, 2013-2016	19.92 14.75	6.68	7.5	3.0	0.5	2.5	-	1.5	One PA	Approved for continuation. Total budget outlay of project revised to Rs 14.75 lakhs from 19.92 lakhs
<b>OG-41</b>	Ecological diversity of Kawal tiger reserve in Andhra Pradesh-A bench mark study. Mr M B Honnuri, 4 years, 2013-2017	24.70	5.50	6.16	0.3	1.87	1.15	0.8	2.04	-	Approved for continuation
<b>OG-42</b>	Natural regeneration studies of important tree species of Nallamalais, Seshachalam hills and Kaundinya Wildlife sanctuary of Eastern Ghats of Andhra Pradesh. Mr M B Honnuri, 5 years, 2013-2018	27.08	5.25	6.39	0.0	1.59	1.74	0.0	3.06	-	Approved for continuation
<b>TOTAL</b>		<b>66.53</b>	<b>17.43</b>	<b>20.05</b>	<b>3.3</b>	<b>3.96</b>	<b>5.39</b>	<b>0.8</b>	<b>6.6</b>	<b>1 PA</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>											
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement: NIL</b>											
<b>GRAND TOTAL</b>		<b>66.53</b>	<b>17.43</b>	<b>20.05</b>	<b>3.3</b>	<b>3.96</b>	<b>5.39</b>	<b>0.8</b>	<b>6.6</b>	<b>1 PA</b>	

## B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR): NIL

## C. New Projects:

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)					Required Manpower (RA/SRF/ JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)	
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
EF-12	Semiochemicals for the management of Sal heart-wood borer, <i>Hoplocerambyx spinicornis</i> (Coleoptera: Cerambycidae). Dr. Deepa M, 3 years, 2015-2018.	48.628	-	-	-	-	-	-	-	Approved. For external funding. Associate TFRI Jabalpur also
EF-13	Development of integrated pest management system (IPM) for <i>Sapindus trifoliatus</i> of Andhra Pradesh. Dr. Deepa M, 3 years, 2015-2019	12.08	-	-	-	-	-	-	-	Approved For external funding from SFD
NW-37	Screening for establishing bio-efficiency of ethno-Insecticidal plants from the forest of Andhra Pradesh. Dr. Deepa M, 3 years, 2015-2018	11.75	6.07	0.40	0.34	0.30	3.16	1.87	1JRF	Approved
	<b>Total</b>	<del>72.458</del> 11.75	<b>6.07</b>	<b>0.40</b>	<b>0.34</b>	<b>0.30</b>	<b>3.16</b>	<b>1.87</b>	<b>1 JRF</b>	

## Annexure-IV (IFB)

<b>Thrust Area II: Biodiversity conservation and ecological security:</b>										
<b>NW-38</b>	Impacts of nutrient loading from droppings of nesting migratory waterfowl in the wetland ecosystem of <i>Nelapattu</i> bird sanctuary, Andhra Pradesh Mr. Anish V. Pachu R.A.I , 3years, 2015-2018	16.52	6.256	2.0	0.80	0.80	1.20	1.456	1 JRF	Approved. PI to include control area / plot in the project.
<b>TOTAL</b>		<b>16.52</b>	<b>6.256</b>	<b>2.0</b>	<b>0.80</b>	<b>0.80</b>	<b>1.20</b>	<b>1.456</b>	<b>1 JRF</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>EF-14</b>	Development of molecular marker based techniques for the conservation and sustainable utilization of Red sanders ( <i>Pterocarpus santalinus</i> L.f.). Dr. S. Pattanaik, 4 years, 2015-2019	98.212	-	-	-	-	-	-	-	Approved for external funding from DBT. One PCR pending for submission
<b>EF-15</b>	Genetic resource assessment and <i>ex situ</i> conservation of three endemic tree species of Eastern Ghats. Dr. S. Pattanaik, 4 years, 2015-2019	49.579	-	-	-	-	-	-	-	Approved for external funding from DBT. One PCR pending for submission
<b>NW-39</b>	Productivity improvement in <i>Pterocarpus santalinus</i> L.f. through mass selection and selective breeding. Dr. S. Pattanaik, 5 years, 2015-2020	40.00	6.992	1.00	1.85	0.50	0.75	2.892	1 JRF 1 Mali	Approved. Implementation of project will be allowed only after PI submits the pending PCR.
<b>TOTAL</b>		<del>189.791</del> <b>40.00</b>	<b>6.992</b>	<b>1.00</b>	<b>1.85</b>	<b>0.50</b>	<b>0.75</b>	<b>2.892</b>	<b>1 JRF, 1Mali</b>	
<b>GRAND TOTAL</b>		<del>278.769</del> <b>68.27</b>	<b>19.318</b>	<b>3.4</b>	<b>2.99</b>	<b>1.6</b>	<b>5.11</b>	<b>6.218</b>	<b>3 JRF, 1 Mali</b>	

**D. Budget Summary of Ongoing and New Projects:**

Sl. No.	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
1	Ongoing Projects	66.53	3.3	3.96	5.39	0.8	6.60	20.05	1 PA	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
2	New Projects	68.27	3.4	2.99	1.6	5.11	6.22	19.32	3 JRF, 1 Mali	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		<b>6.70</b>	<b>6.95</b>	<b>6.99</b>	<b>5.91</b>	<b>12.82</b>	<b>39.37</b>	<b>3 JRF, 1 PA, 1 Mali</b>	

## Institute of Forest Genetics and Tree Breeding, Coimbatore

### A. ONGOING PROJECTS (OG)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>											
<b>OG-43</b>	Mapping and monitoring of Casuarinas and Eucalyptus Plantations in Tamilnadu using RS and GIS. R.Vivekanandan, 3 years, 2013 - 2016	<del>17.00</del> 10.50	3.77	5.93	0.50	0.50	2.00	1.00	1.93	1-SRF	Approved for continuation. Budget outlay revised to Rs 10.50 lakhs from Rs. 17.00 lakhs.
	<b>TOTAL</b>	<b>10.50</b>	<b>3.77</b>	<b>5.93</b>	<b>0.50</b>	<b>0.50</b>	<b>2.00</b>	<b>1.00</b>	<b>1.93</b>	<b>1 SRF</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>											
<b>OG-44</b>	Development of models for conversion of plantations into secondary forests in Andaman islands. Shri. S. Saravanan, 5 years, 2011-2016	<del>24.091</del> 9.00	3.60	4.83	0.10	1.50	1.50	0.00	1.73	1 (one) JRF	Approved for continuation. Budget outlay revised to Rs. 9.00 lakhs from Rs 24.091 lakhs
<b>OG-45</b>	Restoration ecology and species recovery studies in Tsunami impacted mangrove areas in Andaman. Shri. S. Saravanan, 5 years, 2011-2016	<del>24.09</del> 10.00	5.16	4.23	0.00	1.50	1.00	0.00	1.73	1 (one) JRF	Approved for continuation. Budget outlay revised to Rs.10.00 lakhs from Rs 24.09 lakhs.
<b>OG-46</b>	Population structure, regeneration status and pollination ecology of <i>Dalbergia latifolia</i> and <i>D. sissoides</i> . Dr. K. R. Sasidharan, 5 years, 2011-2016	<del>22.26</del> 7.50	4.20	2.69	0.25	<b>0.00</b>	1.00	<b>0.00</b>	1.44	1 JRF	Approved for continuation. Budget outlay revised to Rs.7.50 lakhs from Rs 22.26 lakhs.
	<b>TOTAL</b>	<b>26.50</b>	<b>12.96</b>	<b>11.75</b>	<b>0.35</b>	<b>3</b>	<b>3.5</b>	<b>0.0</b>	<b>4.9</b>	<b>3 JRF</b>	

## Annexure-V (IFGTB)

<b>Thrust Area III: Forests and climate change</b>											
<b>OG-47</b>	Assessment of soil organic carbon under different land uses in Tamil Nadu. Dr. A. C. SuryaPrabha, 3 years, 2013-2016	<del>33.9</del> 6.00	3.432	2.41	0.50	0.55	0.40	-	0.96	FA -1	Approved for continuation. Budget outlay revised to Rs. 6.00 lakhs from Rs. 33.90 lakhs.
<b>OG-48</b>	Screening tree species for intra-specific variation in carbon sequestration potential under elevated CO <sub>2</sub> . Dr. C. Buvaneshwaran, 3 years, 2014-2017 ( <b>New project started</b> )	9.57	0.00	3.69	1.50	1.25	0.10	Nil	0.84	FA -1	Approved for continuation.
	<b>TOTAL</b>	<b>15.57</b>	<b>3.432</b>	<b>6.1</b>	<b>2</b>	<b>1.8</b>	<b>0.5</b>	<b>--</b>	<b>1.8</b>	<b>2 FA</b>	
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>											
<b>OG-49</b>	Genetic Improvement of <i>Gmelina Arborea</i> Roxb. through Selection and clonal evaluation. Shri. A. Mayavel, 5 years, 2011-2016	<del>22.71</del> 19.50	11.52	7.43	0.80	3.5	1.20	-	1.93	1 SRF	Approved for continuation. Budget outlay revised to Rs 19.50 from Rs 22.71 lakhs
<b>OG-50</b>	Selection and Screening of Germplasm of <i>Thespesia populnea</i> for Improving Productivity. Dr Kannan C.S. Warriar, 5 years, 2011-2016	<del>19.82</del> 11.00	6.75	4.04	0.20	1.25	1.75	-	0.84	1 FA	Approved for continuation. Budget outlay revised to Rs 11.00 from Rs 19.82 lakhs
<b>OG-51</b>	Establishment of second generation seed orchards of Eucalyptus and selection clones for high productivity in Eucalyptus. Dr. V.Sivakumar, 5 years, 2012-2017	39.98	10.12	10.58	1.00	5.00	1.80	-	2.88	2 JRF	Approved for continuation.
<b>OG-52</b>	Germplasm assemblage and Improvement of <i>Leucaena leucocephala</i> (Lam.) de Wit for industrial biomass productivity. A. Durai, 5 years, 2013-2018	14.22	3.05	3.10	0.20	2.00	0.90	-	-	-	Approved for continuation.

**Annexure-V (IFGTB)**

<b>OG-53</b>	Evaluation of inter-specific hybrid clones of Eucalypts for productivity and wood traits. D. Rajasugunasekar, 1.9.2014 – 2017 <b>(New project started)</b>	10.58	1.5	3.96	0.50	1.5	1.00	-	0.96	1 FA	Approved for continuation.
<b>OG-54</b>	Development of methods for functional analysis of genes involved in salt tolerance in Eucalyptus. Dr. N.V. Mathish, 7 years, 2009-2016	30.93	27.58	3.35	2.00	1.33	0.02	0.00	0.00	-	Approved for continuation.
<b>OG-55</b>	Genetic diversity assessment for management of Eucalyptus seed orchards. Dr. Rekha R. Warriar, 5 years, 2012-2017	47.60	12.64	8.16	5.30	0.25	0.10	0.30 (Maintenance)	2.21	JRF	Approved for continuation.
<b>OG-56</b>	Incorporating resistance in Eucalyptus to <i>Leptocybe invasa</i> Fisher & La Salle (Hymenoptera: Eulophidae) through expression of insect specific dsRNA. Dr. N.V. Mathish, 4 years, 2012-2016	<del>29.754</del> 29.00	22.170	6.326	3.75	0.460	0.05	0.05 (Maintenance)	2.016	1 SRF	Approved for continuation. Budget outlay revised to Rs 29.00 lakhs from Rs 29.754 lakhs.
<b>OG-57</b>	Evaluation of genetic resources of <i>Melia dubia</i> in Tamil nadu and Kerala for productivity enhancement in tree farming. Dr.Rekha R. Warriar, 5 years, 2012-2017	41.90	13.85	4.21	1.50	1.00	0.50	0.25 (Maintenance)	0.96	FA	Approved for continuation.
<b>OG-58</b>	Cytogenetic analysis of selected native tree species. Dr. R. Yasodha, 2013-2016	<del>11.72</del> 11.00	1.00	9.54	1.60	0.00	0.50	6.00	1.44	1 JRF	Approved for continuation. Budget outlay revised to Rs 11.00 lakhs from Rs 11.72 lakhs
<b>OG-59</b>	Characterization of DNA Barcoding genes in <i>Pterocarpus</i> specie. Dr. A. Shanthi, 3 years, November 2014 to October 2017 <b>(New project started)</b>	21.41	0.5	10.44	2.00	0.20	1.80	5.0	1.44	1JRF	Approved for continuation.

**Annexure-V (IFGTB)**

<b>OG-60</b>	Exploration, Collection and Evaluation of Forest Genetic Resources and Development of National Gene bank. Dr. K. Palanisamy, 5 years, 2012- 2017	39.71	7.57	10.02	1.29	3.00	1.80	-	3.93	JRF-1 Skilled-1 Unskilled-2	Approved for continuation.
<b>OG-61</b>	Productivity studies on commonly cultivated bamboo species in different agro climatic zones of Tamil Nadu. Shri. M. Maria Dominic Savio, 5 years, 2012- 2017	19.11	3.95	3.68	0.75	0.5	0.5		1.93	JRF-1	Approved for continuation.
	<b>Total</b>	<b>335.94</b>	<b>122.2</b>	<b>84.936</b>	<b>20.89</b>	<b>19.99</b>	<b>11.92</b>	<b>11.6</b>	<b>20.536</b>	SRF-2, JRF 7 FA-3, Skilled-1, unskilled 2	
	<b>GRAND TOTAL</b>	<b>388.51</b>	<b>142.3617</b>	<b>108.716</b>	<b>23.74</b>	<b>25.29</b>	<b>17.92</b>	<b>12.6</b>	<b>29.166</b>	3 SRF, 10 JRF, 5 FA, Skilled-1, unskilled 2	

**B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR)**

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16					
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth: NIL</b>										
<b>Thrust Area II: Biodiversity conservation and ecological security: NIL</b>										
<b>Thrust Area III: Forests and climate change: NIL</b>										

**Annexure-V (IFGTB)**

<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>OG-62 CR-16</b>	Selection of clones of <i>Acacia auriculiformis</i> with desirable stem form and wood properties for short rotation timber production. Sh. Maheshwar Hedge, 5 years, 2010-2015 <b>(Change request)</b>	19.22		3.04	-	1.0	0.60	-	1.44 One JRF	Approved for 2 years up to 2017
<b>OG-63 CR-17</b>	Selection and Evaluation of High yielding clones of <i>Pongamia pinnata</i> . Dr. K. Palanisamy, 4 years, 2011- 2015 <b>(Change request)</b>	18.38	11.00	6.80	1.10	2.52	1.25	-	1.93	Approved for 1 year extension up to 2016
<b>TOTAL</b>		<b>37.6</b>	<b>11</b>	<b>9.84</b>	<b>1.1</b>	<b>3.52</b>	<b>1.85</b>	<b>-</b>	<b>3.37</b>	
<b>GRAND TOTAL</b>		<b>37.6</b>	<b>11</b>	<b>9.84</b>	<b>1.1</b>	<b>3.52</b>	<b>1.85</b>	<b>-</b>	<b>3.37</b>	

**C. New Projects:**

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/ JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
				Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res- TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
<b>NW-40</b>	Evaluation of windbreaks for enhancing water use efficiency, crop productivity and climate change resilience in farmlands in semiarid regions of Tamil Nadu. Dr C. Buvaneshwaran, 3 years, 2015-2018	11.55	4.26	0.10	1.75	0.75	-	1.66	JRF-1	Approved for 4 years (2015-2019) within the proposed budget. Co-terminus with usual rotation of 4 years. PI to align the budget.

**Annexure-V (IFGTB)**

<b>NW-41</b>	Insect pests of out planted saplings of ToF (Trees Outside Forests) species and their management. Dr. John Prasanth Jacob, 3 years 2015-2018	21.99	6.83	0.60	2.10	1.50	-	2.63	1 JRF 1 FA	Approved
<b>NW-42</b>	<i>Ailanthus excelsa</i> –for alternate protein: as a potential of fodder in terms of nutritive value and qualitative assessment of other secondary compounds. Dr. S.Murugesan, 3 years, 2015-2018	13.944	4.156	1.0	1.0	0.50	-	1.656	JRF- One Unskilled worker(UN W) -One	Approved. PI to undertake exhaustive literature consutation to avoid repetition and submit status report to the Director before project is taken up for implementation.
<b>NA-5</b>	Secondary metabolites and nutrient balance in casuarinas: An insight into internal trade-off in resource allocation between growth and defense. Dr. N. Senthilkumar, 3 years, 2015-2018	7.93	-	-	-	-	-	-	-	Not Approved as necessary rigour not demonstrated.
<b>EF-16</b>	Profiling enzyme cocktail in subterranean termites and their efficacy in conversion of lignocellulosic biomass into platform. Dr. N. Senthil kumar, 3 years, 2015-2018	10.722	-	-	-	-	-	-	-	Approved. For external funding.
	<b>TOTAL</b>	<del>66.136</del> <b>47.48</b>	<b>15.246</b>	<b>1.7</b>	<b>4.85</b>	<b>2.75</b>	<b>0</b>	<b>5.946</b>	<b>3 JRF, 1FA, UNW-1</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>										
<b>NW-43</b>	Invasion impacts of <i>Acacia mearnsii</i> on changes in soil fertility status of shola forests in the Western Ghats. Dr. A.C. Surya Prabha, 4 Years, 2015-2019	<del>20.89</del> 15.89	<del>9.09</del> 4.09	1.00	0.85	0.80	<del>5.00</del>	1.44	JRF - 1	Approved for two years duration (2015-2017) and minus capital. First year budget revised to Rs. 4.09 lakhs. Total budget revised to Rs. 15.89 lakhs. Third short term objective deleted.

**Annexure-V (IFGTB)**

<b>NW-44</b>	Biocolourant: Bioprospecting of selected accessions of Red tamarind as eco friendly and protective natural dye in textiles/foods. Dr. S. Murugesan, 3 years, 2015-2018	<del>29.544</del> 15.544	<del>18.856</del> 4.856	1.00	1.45	0.75	<del>14.0</del>	1.656	JRF - 1	Approved minus equipment. Budget outlay revised to Rs 15.544 lakhs. First year budget revised to Rs. 4.856 lakhs
<b>EF-17</b>	Assessment of plant biodiversity of Silent Valley Buffer zone. Dr. C. Kunhikannan, 4 years, 2015-2019	30.62	-	-	-	-	-	-	-	Approved. For external funding. Two PCR pending for submission
	<b>TOTAL</b>	<del>81.054</del> <b>31.43</b>	<b>8.946</b>	<b>2.00</b>	<b>2.30</b>	<b>1.55</b>	<b>0.00</b>	<b>3.096</b>	<b>2 JRF</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>NW-45</b>	Genetic improvement of <i>Casuarina</i> for growth and pulp yield through intra and interspecific hybridization. Dr. A. Nicodemus, 5 years 2015-2019	24.07	6.34	0.50	0.50	0.90	3.00	1.44	1 JRF	Approved
<b>NW-46</b>	Testing of New Set of Provenances of <i>Acacia mangium</i> and Estimation of genetic gain from first and second generation seed orchards , Dr Maheshwar Hegde, 4 years, 2015-2019	18.14	3.64	0.5	1.2	0.5	-	1.44	One JRF	Approved
<b>NW-47</b>	Isolation and characterization of Cinnomoyl CoA Reductase gene in <i>Casuarina equisetifolia</i> . .Dr. A. Shanthi, 3 years, <b>2015-2018</b>	<del>18.71</del> 16.71	<del>7.14</del> 5.14	3.0	0.2	0.5	<del>2.0</del>	1.44	1 JRF	Approved minus equipment. Budget outlay revised to Rs. 16.71 lakhs and first year budget to Rs. 5.14 lakhs
<b>NA-6</b>	Development of cost effective vegetative propagation package for mass multiplication of Eucalyptus clones & hybrids. K. S. Venkataramanan, 2years, 2015-2017	2.98	-	-	-	-	-	-	-	Not Approved in the present format. Technical program needs comprehensive revision.

**Annexure-V (IFGTB)**

<b>NW-48</b>	Production of multi-parent intercross populations of eucalyptus for salinity tolerance. Dr. R. Yasodha, 3 years, 2015-2018	<del>32.36</del> 27.36	5.64	1.5	2.5	0.8	0.00	0.84	1FA	Approved. Provisionally for Rs. 27.36 lakhs. Check proposed budget- Rs 27.36 lakhs or 32.36 lakhs.
<b>NW-49</b>	Assessment of <i>Calophyllum inophyllum</i> clones for oil yield and site specificity, Dr. R. Anandalakshmi, 5, 2015-2020	20.84	5.84	0.23	0.85	0.60	2.50	1.66	1 JRF	Approved
<b>NW-50</b>	Development of seed pelleting techniques for commercially important tree species, Dr R Anandalakshmi, 3 years, 2015-2018	12.00	4.66	1.00	1.00	0.70	1.00	0.96	1 FA	Approved
<b>NW-51</b>	Evaluation and Popularization of <i>Neolamarckia cadamba</i> (Roxb.) Miq in Tamil Nadu and Kerala, Dr A Vijayaraghavan, 6 years, 2015-2021	33.71	4.11	0.30	1.60	0.55	0.00	1.66	1 JRF	Approved. Implementation of project will be allowed only after PI submits the pending PCR.
<b>NW-52</b>	Evaluation of second generation <i>Eucalyptus camaldulensis</i> Clones for higher productivity. Dr A Vijayaraghavan, 6 years, 2015-2021	30.10	3.07	0.31	0.50	0.60	0.00	1.66	1 JRF	Approved. Implementation of project will be allowed only after PI submits the pending PCR.
<b>NW-53</b>	Genetic improvement of <i>Swietenia macrophylla</i> for higher productivity. Dr M V Durai, 4 years, 2015-2019	23.18	7.41	0.45	1.30	1.20	2.80	1.66	1 JRF	Approved
<b>NA-7</b>	Studies on heart-rot and root rot diseases of Phyllodinous Acacias. Dr. V. Mohan, 4-years, 2015-2019	18.83	-	-	-	-	-	-	-	Not Approved. Importance and social benefits of the project not brought out well.
<b>NW-54</b>	Investigations on <i>Casuarina</i> mortality in different agro-climatic Zones of Tamil Nadu and developing of suitable management measures. Dr. V. Mohan, 3-years, 2015- 2018	13.70	4.51	0.75	1.35	0.75	0.00	1.66	JRF – 1	Approved in principle. Recast the project for identifying and developing resistant types/ varieties.

**Annexure-V (IFGTB)**

<b>NW-55</b>	Biology, ecology and management of the <i>Casuarina</i> seed pests. Dr A Balu, 4 years, 2015-2019	13.68	2.91	0.20	0.50	0.55	0.00	1.66	JRF - 1	Approved.
<b>NA-8</b>	Germplasm assemblage and evaluation of <i>Khaya senegalensis</i> –a high value timber species. Dr. A. Rajasekaran, 5 Years, 2015-2020	24.91	-	-	-	-	-	-	-	Not Approved. Wood quality parameters (physical mechanical properties, seasoning behaviour, wood working quality and treatability aspects may be first studied by either IWST or FRI). 1 PCR of HFRI pending.
<b>EF-18</b>	Documentation of existing forest genetic resources in India and preparation of a national register of FGR. Shri. M. Maria Dominic Savio, 3 years, 2015 - 2018	101.74	-	-	-	-	-	-	-	Approved for external funding from IUCN, GTZ, GEF, CAMPA
<b>NW-56</b>	Selection and screening of germplasm of <i>Acacia nilotica</i> L. to improve Productivity in Tamil Nadu. Dr. K. Panneer Selvam, 5 years, 2015 - 2020	38.97	5.59	0.00	1.07	1.00	0.90	2.62	1 JRF 1 FA	Approved
<b>NW-57</b>	Strategies for inducing early flowering in eucalyptus. Dr. V.K.W. Bachpai, 3 years, 2015-2018	15.31	3.86	0.5	1.15	0.80	0.00	1.41	1FA 1 unskilled US)	Approved. Check work already carried out (including ENVIS book on Eucalyptus) before implementation
	<b>TOTAL</b>	<del>443.23</del> 287.77	64.72	9.24	13.72	9.45	12.2	20.11	10 JRF, 4 FA, 1 US	
	<b>GRAND TOTAL</b>	<del>590.42</del> 366.68	86.912	12.94	20.87	13.75	10.2	29.152	15 JRF, 5 FA, 2 Unskilled	

**D. Budget Summary of Ongoing and New Projects:**

Sl. No.	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
1	<b>Ongoing Projects</b>	426.11	24.84	28.81	19.77	12.60	32.536	118.556	3 SRF, 10 JRF, 5 FA, Skilled-1, unskilled 2	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
2	<b>New Projects</b>	366.68	12.94	20.87	13.75	10.20	29.152	86.912	15 JRF, 5 FA, 2 unskilled	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		37.78	49.68	33.52	22.80	61.688	205.468	3 SRF, 25 JRF, 10 FA, 1 Skilled, 4 unskilled	

## Institute of Forest Productivity, Ranchi

## A. ONGOING PROJECTS (OG):

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth: NIL</b>											
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>											
<b>OG-64</b>	Development of agro- techniques for organic cultivation of <i>Tribulus terrestris</i> L. and <i>Cissus quadrangularis</i> L.- medicinal plants extensively used in Traditional System of Medicine (Ayurveda, Unani and Chinese). Dr M. Ray, 3 years, 2013- 2016	<del>10.18</del> 5.00	1.00	3.98	1.40	1.20	0.60	0.00	0.78	FA	Approved for continuation. Budget outlay revised to Rs 5.00 lakhs from 10.18 lakhs
	<b>TOTAL</b>	<b>5.00</b>	<b>1.00</b>	<b>3.98</b>	<b>1.40</b>	<b>1.20</b>	<b>0.60</b>	<b>0.00</b>	<b>0.78</b>	<b>1 FA</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>											
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>											
<b>OG-65</b>	Evaluation of <i>Dalbergia sissoo</i> Roxb. Clones for large-scale clonal forestry in Gangetic plains and Chotanagpur plateau. Dr Sanjay Singh, 5 years, 2011-2016	<del>29.40</del> 21.50	15.01	6.00	2.68	1.14	0.25	0.00	1.93	SRF	Approved for continuation. Budget outlay revised to Rs 21.50 lakhs from 29.40 lakhs

**Annexure-VI (IFP)**

<b>OG-66</b>	Tree Borne Oil seeds (TBOs) in community lands for Improved Livelihoods of Vulnerable Groups of Jharkhand. Dr Animesh Sinha, 5 years, 2012-2017	23.34	8.46	4.32	0.68	1.50	0.20	1.10	0.84	FA	Approved for continuation.
<b>OG-67</b>	Collection, Conservation and Evaluation of <i>Melia dubia</i> Germplasm from North-Bengal, Orissa hills and other parts of India for identification and release of superior clones. Sh. Aditya Kumar, 5 years, 2013-2018	67.50	4.76	11.556	4.00	2.70	2.00	0.00	2.856	1 JRF + 1 FA	Approved for continuation.
	<b>Total</b>	<b>112.34</b>	<b>28.23</b>	<b>21.876</b>	<b>7.36</b>	<b>5.34</b>	<b>2.45</b>	<b>1.1</b>	<b>5.626</b>	<b>1 SRF, 1 JRF, 2 FA</b>	
	<b>GRAND TOTAL</b>	<b>117.34</b>	<b>29.23</b>	<b>25.856</b>	<b>8.76</b>	<b>6.54</b>	<b>3.05</b>	<b>1.1</b>	<b>6.406</b>	<b>1 SRF, 1 JRF, 3 FA</b>	

**B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR): NIL**

## C. New Projects:

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/ JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
				Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res- TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
NW-58	Development of <i>Flemingia</i> based agroforestry model for poverty alleviation in Jharkhand. Dr. A. K. Pandey, 3years, 2015 -2018	15.04 13.64	6.14 4.74	1.35	1.35	0.60	1.40	1.44	JRF	Approved. Budget revised to Rs. 13.64. Equipment not approved. First year budget revised to Rs 4.74 lakhs
NW-59	Field evaluation and domestication of high yielding cultivars of <i>Withania somnifera</i> Dunal among the rural people of Jharkhand and West Bengal. Sanjeev Kumar, 3 years, 2015 - 2018	11.76 10.76	4.53 3.53	1.10	1.20	0.60	1.00	0.63	FA	Approved without capital. Budget outlay revised to Rs. 10.76 lakhs and first year budget to Rs. 3.53 lakhs. Implementation of project will be allowed only after PI submits the 3 pending PCRs.
	<b>TOTAL</b>	<b>26.80</b> <b>24.40</b>	<b>8.27</b>	<b>2.45</b>	<b>2.55</b>	<b>1.20</b>	<b>-</b>	<b>2.07</b>	<b>1JRF, 1 FA</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security</b>										
NW-60	Risk Assessment of <i>Lantana camara</i> using Spatial Distribution Modeling Approach in Latehar District. Dr. Sharad Tiwari, 3 years, 2015 -2018	27.48 18.98	13.73 5.23	0.50	1.50	1.50	8.50	1.73	JRF	Approved as Pilot project without equipment. Project cost revised to Rs. 18.98. First year budget revised to Rs 5.23 lakhs

**Annexure-VI (IFP)**

<b>NA-9</b>	Biodiversity study of pteromalid parasitoid (Pteromalidae: Hymenoptera) of Jharkhand. Dr. Arvind Kumar, 3 years, 2015 - 2018	18.26	-	-	-	-	-	-	-	-	Not Approved. Methodology and practical utility not explained
	<b>TOTAL</b>	<b>45.74</b> <b>18.98</b>	<b>5.23</b>	<b>0.50</b>	<b>1.50</b>	<b>1.50</b>	<b>0.00</b>	<b>1.73</b>	<b>1 JRF</b>		
<b>Thrust Area III: Forests and climate change: NIL</b>											
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>											
<b>NW-61</b>	Single Nucleotide Polymorphism (SNP) marker discovery to resolve <i>Bambusa tulda-longispiculata-nutans-teres</i> complex in bamboo taxonomy. Dr. Sanjay Singh, 4 years, 2015 - 2019	<del>29.43</del> 12.00	<del>16.23</del> 4.23	1.78	0.40	0.65	<del>12.00</del>	1.40	JRF	Approved with budget outlay of Rs. 12.00 lakhs and without equipment. First year budget revised to Rs. 4.23 lakhs. Implementation of project will be allowed only after PI submits the pending PCR of HFRE.	
<b>NW-62</b>	Chemical and genetic diversity of <i>Moringa oleifera</i> for value addition in eastern India as food supplement. Sh. Pankaj Singh, 3 years, 2015 - 2018	9.90	3.79	1.55	0.65	0.50	0.46	0.63	PA	Approved	
<b>NW-63</b>	Genetic evaluation and improvement of <i>Flemingia semialata</i> and <i>Flemingia macrophylla</i> used for lac cultivation in Jharkhand. Aditya Kumar, 3 years, 2015 - 2018	12.62	3.84	1.70	0.80	0.50	0.00	0.84	FA	Approved	
	<b>TOTAL</b>	<del>51.95</del> <b>34.52</b>	<b>11.86</b>	<b>5.03</b>	<b>1.85</b>	<b>1.65</b>	<b>0.46</b>	<b>2.87</b>	<b>1 JRF, 1 FA, 1 PA</b>		
	<b>GRAND TOTAL</b>	<del>124.49</del> <b>77.90</b>	<b>25.36</b>	<b>7.98</b>	<b>5.9</b>	<b>4.35</b>	<b>0.46</b>	<b>6.67</b>	<b>3 JRF, 2 FA, 1 PA</b>		

**D. Budget Summary of Ongoing and New Projects:**

Sl. No.	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
1	Ongoing Projects	117.34	8.76	6.54	3.05	1.1	6.406	25.856	1 SRF, 1 JRF, 3 FA	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
2	New Projects	77.90	7.98	5.9	4.35	0.46	6.67	25.36	3 JRF, 2 FA, 1 PA	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		16.74	12.44	7.40	1.56	13.076	51.216	1 SRF, 4 JRF, 5 FA, 1 PA	

## Institute of Wood Science and Technology, Bengaluru

### A. ONGOING PROJECTS (OG)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>											
<b>OG-68</b>	Liquefaction of Wood and value added products from the liquefied wood. Dr. S.S. Chauhan, 3 years, 2013-2016	3.35	2.11	0.65	0.40	0.25	-	-	-	-	Approved for continuation.
<b>OG-69</b>	Study on microwave assisted direct biodiesel production from <i>Pongamia pinnata</i> (L) seed oil by two phase solvent extraction. Ritesh Kumar D. Ram, 3 years, 2014-2017 ( <b>New project started</b> )	11	-	4.50	1.50	1.00	0.13	0	1.87	One JRF	This is a new project started and is in the first year. The PI may request for change in budget outlay in last year of the project if such need arises
<b>OG-70</b>	Chemical modification of Eucalyptus hybrid oil and development of fragrant products. Mr. S.H. Jain, 3 years, 2013- 2016	<del>9.50</del> 4.50	3.00	1.05	0.5	0.25	0.30	Nil	Nil	Nil	Approved for continuation. Total budget outlay of project revised to Rs. 4.50 lakhs from Rs. 9.50.
<b>OG-71</b>	Determination of treatability and durability of imported timbers as per Bureau of Indian Standards. Dr. R. Sundararaj, 6 years, 2012-2018	8.80	3.0	1.55	0.15	0.15	1.05	0.20	-	-	Approved for continuation.

**Annexure-VII (IWST)**

<b>OG-72</b>	Biomass, net primary productivity and shoot productivity of seven industrially important bamboo species in semi-arid and humid tropics of Peninsular India. Dr. Syam Viswanath, 3 years, 2013-2016	<del>12.50</del> 11.25	5.0	5.75	1.12 5	0.98	0.98	0.80	1.872	1 JRF	Approved for continuation. Budget outlay revised to Rs. 11.25 lakhs from Rs. 12.50 lakhs.
	<b>TOTAL</b>	<b>38.90</b>	<b>13.11</b>	<b>13.50</b>	<b>3.675</b>	<b>2.63</b>	<b>2.46</b>	<b>1</b>	<b>3.742</b>	<b>2 JRF</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security: NIL</b>											
<b>Thrust Area III: Forests and climate change: NIL</b>											
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>											
<b>OG-73</b>	Vegetative propagation and silvicultural practices for selected tropical timber species for plywood and panel wood industries. Dr. Geeta Joshi, 4 years, 2011-2016:	<del>17.04</del> 12.25	10.25	1.67	0.20	0.15	0.30	-	1.02	PA	Approved for continuation. Budget outlay revised to Rs 12.25 lakhs from Rs 17.04 lakhs
<b>OG-74</b>	Growth variability in <i>Melia dubia</i> plantations and seed germination studies. Dr. A.N. Arun Kumar, 5 years, 2011-2016	<del>7.20</del> 5.00	2.70	1.87	-	0.15	0.70	-	1.02	PA	Approved for continuation. Budget outlay revised to Rs 5.00 lakhs from Rs 7.20 lakhs
<b>OG-75</b>	All India Co-ordinated Project on genetic improvement of <i>Melia dubia</i> .(AICP). Dr. Geeta Joshi , 10 years, 2012-2022	107.0	12.08	4.02	2.0	0.10	0.20	-	1.72	JRF	Approved for continuation.
	<b>Total</b>	<b>124.25</b>	<b>25.03</b>	<b>7.56</b>	<b>2.2</b>	<b>0.4</b>	<b>1.2</b>		<b>3.76</b>	<b>1 JRF, 2 PA</b>	
	<b>GRAND TOTAL</b>	<b>163.15</b>	<b>38.14</b>	<b>21.06</b>	<b>5.875</b>	<b>3.03</b>	<b>3.66</b>	<b>1</b>	<b>7.502</b>	<b>3 JRF, 2 PA</b>	

**B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR):**

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16					
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
<b>OG-76 CR-18</b>	Evaluation of wood properties of <i>Melia dubia</i> of different ages from Southern India for finding suitability for various end products and development of value added products (AICP-2012-2015). Dr. S.K. Sharma, 3 years, 2012-2015 ( <b>Change request</b> )	6.44	Not provided by Institute	2.26	0.60	1.05	0.10	-	0.51 (6 months)	Approved for one year extension up to 2016 within sanctioned budget outlay.
<b>OG-77 CR-19</b>	Wood modification of <i>Melia composita</i> for improving its dimensional stability and durability. (AICP- 2012-2015), Dr. K.K. Pandey, 3 years, ( <b>Change request</b> )	7.54	Not provided by Institute	2.32	0.25	0.20	0	0	1.87	Approved for one year extension up to 2016 within sanctioned budget outlay.
<b>OG-78 CR-20</b>	Development of coccinellids based biocontrol programmes for the management of sandal scales and mealy bugs. Dr.Sundarraaj, 4 years, 2011-2015 ( <b>Change request</b> )	<del>11.91</del> 8.75	5.65	2.702	0.35	0.10	0.50	-	1.752	Approved for one year extension up to 201. Total budget outlay revised to Rs. 8.75 lakhs from Rs. 11.91 lakhs.

**Annexure-VII (IWST)**

<b>OG-79 CR-21</b>	Bioassay of plant extractives for antibacterial activity of marine biofilm isolates. M.V. Rao, 4 years, 2013-2017( <b>Change request</b> )	<del>9.28</del> 12.53	Not provided by Institute	3.533	1.750	0.050	0.005	0	1.728	Revised budget outlay of Rs. 12.53 lakhs approved.
<b>OG-80 CR-22</b>	Nanocellulose filled starch based composites. Dr. Shakti S. Chauhan, 3 years, 2013-2015	<del>5.18</del> 4.50	1.70	2.60	0.4	0.33	0	0	1.87	The project started late in 2013-2014(starting date in Jan 2014) due to non availability of funds. The work therefore delayed. Request for extension period by one year up to 2016 approved PI c from Dr. Ajay Karmarkar to Dr SS Chauhan also approved. Budget outlay rrevised to Rs. 4.50 lakhs from Rs. 5.18.
<b>Total</b>		<b>39.76</b>	<b>7.35</b>	<b>13.415</b>	<b>3.35</b>	<b>1.73</b>	<b>0.605</b>	<b>0</b>	<b>7.73</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security: NIL</b>										
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>OG-81 CR-23</b>	Refinement and standardization of protocols for <i>in vitro</i> propagation and genetic fidelity studies of micro propagated plants of two bamboo species <i>Bambusa balcooa</i> and <i>Thyrsostachys oliveri</i> . Dr. Ashutosh Srivastava, 4 years, 2011-2015 ( <b>Change request</b> )	15.48	Not provided by Institute	3.027	0.50	1.0	0.50	-	1.02	Approved extension 2 years extension up to 2017 within approved budget outlay
<b>Total</b>		<b>15.48</b>		<b>3.027</b>	<b>0.50</b>	<b>1.0</b>	<b>0.50</b>	<b>0</b>	<b>1.02</b>	
		<b>55.24</b>	<b>7.35</b>	<b>16.442</b>	<b>3.85</b>	<b>2.73</b>	<b>1.105</b>	<b>0</b>	<b>8.75</b>	

## C. New Projects:

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/ JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
				Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res- TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
NW-64	Studies on acoustical behaviour of different types of natural fibers for their utilization as sound absorbing materials. Dr. S.K. Sharma, 2 years, 2015-2017	16.65	12.61	0.50	0.85	0.50	10.00	0.76	1 PA	Approved
NW-65	Identification, pattern of distribution, proportion of tension wood and study of certain physical and anatomical characters in <i>Melia composita</i> Syn. <i>Melia dubia</i> Cav. Wood of two different ages. Dr. M. Sujatha, 3 years, 2015-2018	<del>20.16</del> 13.16	<del>15.12</del> 8.12	0.70	1.10	0.30	<del>12.00</del> 5.00	1.02	1 PA	Approved with budget of Rs 8.16 lakhs. Equipment not approved. First year budget revised to Rs. 3.12 lakhs
NA-10	Assessment of selected plantation timbers for decking. N.C.M. Rajan, 2 years, 2015-2017	4.80	-	-	-	-	-	-	-	Project not approved. RPC felt that project is not very relevant and is not well designed. PI to submit one pending PCR to ICFRE
NW-66	Biological degradation and weathering behaviour of wood-polymer composites. Dr. Pankaj Aggarwal, 3 years, 2015-2018	<del>33.42</del> 19.42	<del>21.59</del> 7.59	1.25	3.75	0.50	<del>14.0</del>	2.09	JRF – 1 PA-1	Approved without equipment. Budget revised to 19.42 lakhs. First year budget will be Rs. 7.59 lakhs

**Annexure-VII (IWST)**

<b>NW-67</b>	Efficacy of Nano metal oxides as wood preservative. Mrs. D. Venmalar, 3 years, 2015-2018	10.65	3.46	1.0	0.80	0.1	0.15	1.41	JRF-1	Approved
<b>NW-68</b>	Gas Chromatography-Mass Spectrometry (GC-MS) Based Authentication of Sandalwood Oil. Dr.S S Bisht, 3 years, 2015-18	<del>14.00</del> 6.88	<del>6.30</del> 1.90	1.00	0.70	0.20	<del>3.00</del>	<del>1.404</del>	JRF	Approved without JRF/FA/PA and equipment. Time period revised to two years. Budget to be accordingly revised to 6.88 lakhs. First year budget will be Rs 1.90 lakhs
<b>NW-69</b>	Incidence forecast and control of emerging and re-emerging disease problems in nurseries & plantations of sandalwood. Dr. A. Muthukumar, 5 years, 2015-2020	<del>15.76</del> 11.76	<del>5.91</del> 1.85	0.35	0.19	0.46	<del>4.00</del>	0.85	One PA	Approved without equipment. Total budget outlay revised to Rs. 11.76 lakhs. First year budget revised to Rs 1.85lakhs
<b>EF-19</b>	Status of Wood Based Handicrafts in Karnataka: Problems and Potentials. Dr. Ritesh Tailor, 2 years, 2015-2017	6.00	-	-	-	-	-	-	-	Approved. For external funding
<b>EF-20</b>	Survey on availability of seedlings, survival rate of seedlings and feedstock availability of various biofuel species in Karnataka. Dr. Ritesh Tailor, 2 Years, 2015-2017	11.00	-	-	-	-	-	-	-	Approved. For external funding
<b>NW-70</b>	A Study on Implication of legislation / deregulation policy (2001) on Sandal wood cultivation in Karnataka, P. R. Triveni, 2 years 2015- 2017	<del>5.50</del> 3.14	3.14	-	0.80	1.50	-	0.84	PA	Approved for time period of one year (2015-16). Budget revised to Rs 3.14 lakhs. Draft sandalwood bill, associate TFRI and conduct workshop.

**Annexure-VII (IWST)**

<b>NW-71</b>	Formaldehyde emission reduction from panel products. Dr. Anil Kumar Sethy, 3 years, 2015-2018	5.85	1.99	0.80	0.42	0	0	0.77	1 PA	Approved. Project implementation will be allowed only after PI submits the one pending PCRs to ICFRE
<b>NW-72</b>	Screening of High oleoresin yielding forest plants of Western Ghats and standardisation of extraction methods. Chandrashekar. B.S, 3 years, 2015-2018	<del>16.678</del> 10.70	<del>9.25</del> 3.25	1.05	0.50	0.30	<del>6.00</del>	1.404	JRF	Approved for Rs 10.7 lakhs without equipment. First year budget revised to Rs. 3.25 lakh. Project implementation will be allowed only after PI submits 2 pending PCRs.
<b>NW-73</b>	Estimation of important wood quality parameters and identification of timber species by rapid and nondestructive technique using Near Infrared Spectroscopy (NIRS). Dr. S.R. Shukla, 3 years, 2015-2018	<del>25.00</del> 20.00	<del>17.19</del> 12.19	0.40	1.53	0.05	<del>13.80</del> 8.80	1.41	1 JRF	Approved without data analysis software. Equipment cost revised to Rs 8.80 lakhs. Budget revised to Rs 20.00 lakhs and first year budget to Rs 12.19 lakhs. Project implementation will be allowed only after PI submits the pending PCRs
<b>NA-11</b>	Documentation of traditional knowledge of protecting marine wooden craft through indigenous methods. M.V. Rao 2 years, 2015-2017	5.12	-	-	-	-	-	-	-	Dropped by Director IWST
	<b>Total</b>	<del>190.588</del> 118.21	<b>56.10</b>	<b>7.05</b>	<b>10.64</b>	<b>3.91</b>	<b>23.95</b>	<b>10.554</b>	<b>5 JRF, 6 PA</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security: NIL</b>										
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>NW-74</b>	Selection and Improvement of Natural dye yielding plants. H. C. Sindhu Veerendra, 4 years, 2015-2019	14.588	3.67	1.1	0.3	0.4	-	1.87	JRF	Approved
	<b>TOTAL</b>	<b>14.588</b>	<b>3.67</b>	<b>1.1</b>	<b>0.3</b>	<b>0.4</b>	<b>0.0</b>	<b>1.87</b>	<b>JRF</b>	
	<b>GRAND TOTAL</b>	<del>205.176</del> <b>132.80</b>	<b>59.77</b>	<b>8.15</b>	<b>10.94</b>	<b>4.31</b>	<b>23.95</b>	<b>12.424</b>	<b>6 JRF, 6 PA</b>	

**D. Budget Summary of Ongoing and New Projects:**

Sl. No	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
1	Ongoing Projects	218.39	9.725	5.76	4.765	1.00	16.25	37.50	3 JRF, 2 PA	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
2	New Projects	132.80	8.15	10.94	4.31	23.95	12.424	59.77	6 JRF, 6 PA	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		17.875	16.7	9.075	24.95	28.674	97.27	9 JRF, 8 PA	

## Rain Forest Research Institute, Jorhat

## A. ONGOING PROJECTS (OG)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>											
<b>OG-82</b>	Studies on the traditional knowledge of medicinal plants used by Nepali community in Assam and identification of important species for chemical analysis. Shri H.N. Dhungana, 3 years, 2013-2016	4.99	2.61	1.82	0.24	0.10	0.64	0.00	0.84	FA-1 (Already engaged)	Approved for continuation.
<b>OG-83</b>	Studies on soil profile attributes under forest and jhum land areas of some selected sites of Nagaland state. Dr. P.K. Das, 3 Years, 2013-2016	<del>4.936</del> 13.50	8.295	4.364	0.408	0.712	0.820	0.00	2.424	JRF-1 FA-1 Already engaged	Approved for continuation. Total budget outlay of project revised to Rs. 13.50 lakhs from 16.94 lakhs.
<b>OG-84</b>	Studies on the diversity of soil borne entomo-pathogenic fungi in different land used system of North east India and their utility for the management of major defoliators of <i>Gmelina arborea</i> Roxb. and <i>Aquilaria malaccensis</i> Lamk. Shri R. Raja Rishi, 3 years, 2013-2016	8.27	5.07	2.82	1.13	0.15	0.70	0.00	0.84	FA-1 Already engaged	Approved for continuation.

**Annexure-VIII (RFRI)**

<b>OG-85</b>	Exploration of adhesive materials for incense sticks from the plant species of north east India. Dr. S.C. Biswas, 2 years, June 2014 to May 2016 ( <b>New project started</b> )	7.28	3.60	3.68	0.85	0.50	1.25	0.0	1.084	Require 1 PA	Approved for continuation.
<b>OG-86</b>	Evaluation of forest fruits for the nutritional value and develop value added products for economic enhancement of the local people. Dr. S.C.Biswas, 2 years, June14 to May 2016,( <b>New project started</b> )	7.16	3.53	3.63	0.60	0.50	1.45	0.0	1.084	PA-1 (Already engaged)	Approved for continuation.
<b>TOTAL</b>		<b>41.20</b>	<b>23.11</b>	<b>16.32</b>	<b>3.23</b>	<b>1.96</b>	<b>4.86</b>	<b>0.00</b>	<b>6.27</b>	<b>1 JRF, 3 FA, 2 PA</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>											
<b>OG-87</b>	Studies on ecological and ethnomycological aspects of wild mushrooms of Meghalaya. Rajesh Kumar, 3years, 2014-2017 ( <b>New project started</b> )	17.862	5.25	6.074	0.10	1.45	2.10	Nil	2.424	JRF-1 FA-1 (Already engaged)	Approved for continuation
<b>OG-88</b>	Studies on the economically important diseases of medicinal and aromatic plants of Assam to develop management practices though organic approach. Dr. Shailesh Pandey, 3 years, 2013-2016	<del>8.00</del> 7.00	4.86	1.74	0.54	0.01	0.35	0.00	0.84	FA-1 (Already engaged)	Approved for continuation. Budget outlay revised to Rs 7.00 lakhs from Rs 8.00 lakhs.
<b>OG-89</b>	Population genetic structure of <i>Calamus</i> species and influence of infectious diseases in Mizoram and Tripura, North East India. Shri Hans Raj, 3 years, 2014-2017 ( <b>New project started</b> )	22.22	7.0	8.51	1.85	0.20	0.70	4.20	1.56	FA-1 Field Labour-1 (Already engaged)	Approved for continuation.
<b>OG-90</b>	Investigation in to the mortality of <i>Porkia Roxburghii</i> G. Don in North East India. Dr. R. K. Borah, 3 years, 2014-2017 ( <b>New project started</b> )	13.94	4.248	4.464	0.32	0.20	1.28	0.0	2.664	JRF-1 PA-1 (Already engaged)	Approved for continuation

**Annexure-VIII (RFRI)**

<b>OG-91</b>	A preliminary investigation on hypotrophy (Dwarfing / stunting of <i>Lilium mackliniae</i> Sealy. Shri Arup Deka, DCF, 2 years, 2014- 2016 ( <b>New project started</b> ))	6.76	4.34	2.42	0.40	0.53	1.49	0.00	0.00	0.00	Approved for continuation
<b>OG-92</b>	Assessment of diversity and carbon sequestration potential of above ground woody biomass of semi evergreen forest in Assam. Shri B. Pradhan, 3 years, 2013-2016	<del>14.68</del> 10.00	4.924	4.188	0.0	0.30	1.20	0.0	2.688	JRF-1 FA-1 (Already engaged)	Approved for continuation. Budget outlay revised to Rs 10.00 lakhs from Rs 14.68 lakhs
<b>OG-93</b>	Impact of <i>mikania micrantha</i> Kun th. ex HBK on micro environment of native species in Bherjan, Borjan, Padumoni R.F., Dilli R.F. & Abhayapur R.F. of Upper Assam P.I. Dr. K. N. Barua, Research Officer, 3 years, 2014-17 ( <b>New project started</b> )	14.83	2.85	4.53	0.85	0.80	1.20	0.0	1.68	FA-2 (Already engaged)	Approved for continuation
<b>OG-94</b>	Genetic diversity of <i>Trichoderma</i> strains prevalent in forest type of North Eastern India. Dr. Shailesh Pandey, 3 years, 2013-2016	27.21	-	1.59	0.59	0.01	0.15	0.00	0.84	FA-1 (Already engaged)	Approved for continuation
	<b>TOTAL</b>	<b>119.822</b>	<b>33.472</b>	<b>33.516</b>	<b>4.65</b>	<b>3.5</b>	<b>8.47</b>	<b>4.20</b>	<b>12.696</b>	3 JRF, 7 FA, 1 PA	
<b>Thrust Area III: Forests and climate change</b>											
<b>OG-95</b>	A study on distribution and phenological events of <i>Pinus kesiya</i> along and altitudinal gradient in NE Himalayas. Shri A.K. Deka, DCF, 2 years, 2014-2016 ( <b>New project started</b> )	16.25	10.90	5.35	1.40	0.89	3.06	0.00	0.00	-	Approved for continuation.
	<b>TOTAL</b>	<b>16.25</b>	<b>10.90</b>	<b>5.35</b>	<b>1.40</b>	<b>0.89</b>	<b>3.06</b>	<b>0.00</b>	<b>0.00</b>	-	
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>											

**Annexure-VIII (RFRI)**

<b>OG-96</b>	In vitro propagation of <i>vandacourelea</i> . Shri Satyam Bordoloi, 3 years, 2013-2016	<del>6.65</del> 4.75	2.78	1.80	1.10	0.50	0.20	0.00	0.00	0.00	Approved for continuation.. Budget outlay revised to Rs 4.75 from Rs 6.65 lakhs
<b>OG-97</b>	Study on seed source variation for germination and seedling growth and establishment of seedling seed orchard or <i>Michelia champaca</i> . Mohd. Ibrahim, 3 years, 2013-16	<del>10.47</del> 7.00	2.40	4.56	0.32	2.50	0.90	0.00	0.84	FA-1 Already engaged	Approved for continuation. Budget outlay revised to Rs 7.00 lakhs from Rs 10.47 lakhs
<b>OG-98</b>	Identification of suitable clones of populous species for North East India through genetic evaluation. Mohd. Ibrahim, 5 years, 2014-2019 ( <b>New project started</b> )	29.37	5.00	6.94	1.5	3.00	1.60	0.00	0.84	FA-1 Already engaged	Approved for continuation.
<b>OG-99</b>	All India coordinated project for genetic improvement <i>Melia composita</i> – RFRI Component. Dr. N. Ravi, 10 years, 2012-2022	107	13.0	10.0	3.63	3.096	1.69	Nil	1.584	JRF-1 Already engaged	Approved for continuation
<b>OG-100</b>	Screening of <i>Gmelina arborea</i> Roxb. clone for productivity and stability. Dr. N. Ravi, 5 years, 2013 – 2018	31.98	3.586	7.58	0.2	3.6	2.7	Nil	1.08	Require PA-1	Approved for continuation.
	<b>Total</b>	<b>180.10</b>	<b>26.766</b>	<b>30.88</b>	<b>6.75</b>	<b>12.696</b>	<b>7.09</b>	<b>0.00</b>	<b>4.344</b>	<b>1 JRF, 2 FA, 1 PA</b>	
	<b>GRAND TOTAL</b>	<b>357.37</b>	<b>94.25</b>	<b>86.07</b>	<b>16.03</b>	<b>19.05</b>	<b>23.48</b>	<b>4.20</b>	<b>23.31</b>	<b>5 JRF, 12 FA, 4 PA</b>	

**B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR):**

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16					
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
<b>OG-101</b> <b>CR-24</b>	Studies on soil profile attributes under forest and jhum land areas of some selected sites of Nagaland state. Dr. P.K. Das, 3 years, 2013-2016 ( <b>Change request</b> )	16.29	Not provided by Institute	4.364	0.408	0.712	0.820	0	2.424	Approved Dr Mishra Sc.-B, as Co PI in the project.
<b>OG-102</b> <b>CR-25</b>	Raising of planting materials of selected Cane species and establish plantation in fringe villages in Karbi-anglong, Assam to sustain rural livelihood. PI: H.R. Bora, Scientist-B, 3 years, April-2013 to March, 2016 ( <b>Change request</b> )	10.08	4.23	5.30	0.30	2.32	1.00	0.60	1.08 (one PA)	Approved for continuation. Total budget outlay of project revised to Rs. 10.08 lakhs from 23.49 lakhs. The title of the project is modified as "Raising of planting materials of selected Cane species and establish plantation in fringe villages of Assam and Mizoram to sustain rural livelihood".
	<b>Total</b>	<b>42.93</b>		<b>9.664</b>	<b>0.708</b>	<b>3.032</b>	<b>1.82</b>	<b>0.6</b>	<b>3.504</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>										

**Annexure-VIII (RFRI)**

<b>OG-103 CR-26</b>	Genetic diversity of <i>Trichoderma</i> strains prevalent in forest type of North Eastern India. Dr. Shailesh Pandey, 3 years, 2013-2016 <b>(Change request)</b>	27.21	Not provided by Institute	1.59	0.59	0.01	0.15	0.0	0.84	Approved change in title “Studies on <i>Trichoderma</i> strains inhabiting different forest ecosystem of North East India” and Objectives: Short term; Survey and collection of rhizospheric and nonrhizospheric soil samples. Isolation, identification and purification of <i>Trichoderma</i> strains. Phenotypic characterization Evaluation of <i>Trichoderma</i> strains against an important forest pathogen. Long term: Effective utilization of <i>Trichoderma</i> strains for managing forest health.
	<b>Total</b>	<b>27.21</b>	<b>-</b>	<b>1.59</b>	<b>0.59</b>	<b>0.01</b>	<b>0.15</b>	<b>0.0</b>	<b>0.84</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement: NIL</b>										
	<b>GRAND TOTAL</b>	<b>70.14</b>		<b>11.254</b>	<b>1.298</b>	<b>3.042</b>	<b>1.97</b>	<b>0.6</b>	<b>4.344</b>	

## C. New Projects:

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/ JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
				Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
NW-75	Adaptation and mitigation measures in relation to shortening of <i>jhum</i> cycle vis-à-vis soil nutrient status and productivity in different traditional systems of Nagaland. Dr. Krishna Giri, 3 years , 2015-2018	12.94	5.48	0.50	3.45	0.90	-	0.63	FA-1	Approved. In the first short term objective replace bacteria by microbes
NW-76	Assessment of selected ecosystem services and their inter-linkage with human wellbeing in Dibru-Saikhowa Biosphere Reserve, Assam. Sh Ajay Kumar, 2 years, 2015-2017	7.09	2.71	0.50	0.35	1.00	0.05	0.81	PA-1	Approved
	<b>TOTAL</b>	<b>20.03</b>	<b>8.19</b>	<b>1.00</b>	<b>3.80</b>	<b>1.90</b>	<b>0.05</b>	<b>1.44</b>	<b>1 PA, 1 FA</b>	
<b>Thrust Area II: Biodiversity conservation and ecological security:</b>										
NW-77	Ecological studies on <i>lepidoptera</i> in evergreen forests of Upper Assam. Dr. A.P. Singh, 2 years, 2015-2017	8.60	4.40	0.10	1.30	0.60	1.20	1.20	JRF-1	Approved

**Annexure-VIII (RFRI)**

<b>NW-78</b>	Standardization of nursery techniques of selected threatened minor fruit-plants of North East India for their effective conservation and development of value added products for inclusive growth. Dr. T.N. Manohara, 3 years, 2015-2018	18.552	6.734	0.6	2.9	1.25	0.90	1.084	PA-1	Approved. Title changed and 'threatened minor' replaced by wild in the title. Food safety standards to be followed. Implementation of project will be allowed only after PI submits two pending PCRs to ICFRE.
<b>NW-79</b>	Studies on changes in Soil Quality and Carbon Buildup under different land use systems in Nagaland. P.I.: Dr. Gaurav Mishra, 3 years, 2015-2018	8.83	3.58	0.90	0.40	0.45	1.20	0.63	FA-1	Approved
<b>NW-80</b>	Assessment, documentation and characterization of lichen diversity in Mizoram, Northeast India. Shri Sandeep Yadav, 3 years, 2015-2018	17.52	11.33	0.30	0.10	0.50	9.70	0.73	PA-1	Approved
<b>NW-81</b>	Effect of dual inoculation of Arbuscular mycorrhizae and phosphate solubilizing bacteria (PSB) in productivity and nutrient status of degraded shifting cultivation soil under shifting cultivation of Meghalaya. Dr D. Dutta, 3 years, 2015-2018	10.98	2.82	0.63	0.33	0.78	0.45	0.63	FA-1	Approved. Title changed to " Isolation and study the efficiency of Arbuscular mycorrhizal fungi, phosphate and potash solubilizing bacteria in enhancing productivity and nutrient status of degraded soil under shifting cultivation of Karbi Anglong, Assam"
<b>NA-12</b>	Ex-situ regeneration of <i>Panax pseudoginseng</i> Wall. And <i>Panax assamicus</i> Ban. under different climatic situation of north eastern region. Dr. Papori Phukan Borpuzari, 2 years, 2015-2017	5.92	-	-	-	-	-	-	-	Not Approved. Project not well conceived.

**Annexure-VIII (RFRI)**

<b>NW-82</b>	Studies on nurseries diseases of economically important tree species of Mizoram and their management. Sh Hans Raj, 3 years, 2015-2018	9.51	3.14	0.30	0.05	0.85	0.50	1.44	FA-I, 1 Field Labour (FL)	Approved
<b>NW-83</b>	Mycological investigations on diversity and ecological status of Bambusicolous macro-fungi in Upper Assam. Dr. VipinParkash, 2 years, 2015-2017	7.76	3.88	0.40	0.40	0.50	1.50	1.08	PA-1	Approved. Co-PI may be added. Ethono mycological data may also be collected
<b>NA-13</b>	Study on soil seed bank composition under semi-evergreen forest in upper Brahmaputra valley zone of Assam and its potential applications in vegetation restoration. Shri Dinesh Meena, 3 years, 2015-2018	8.70	-	-	-	-	-	-	-	Withdrawn by Director RFRI, DST funding received
	<b>TOTAL</b>	<del>96.372</del> 81.75	35.884	3.23	5.48	4.93	15.45	6.794	1 JRF, 3 PA, 3 FA, 1 FL	
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement: NIL</b>										
	<b>GRAND TOTAL</b>	<del>116.402</del> 101.78	44.074	4.23	9.28	6.83	15.5	8.234	1 JRF, 4 PA, 4 FA, 1 FL	

**D. Budget Summary of Ongoing and New Projects:**

Sl. No.	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
1	Ongoing Projects	427.51	17.33	22.09	25.45	4.80	27.65	97.32	5 JRF, 12 FA, 4 PA	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
2	New Projects	116.40	4.23	9.28	6.83	15.5	8.23	44.07	1 JRF, 4 FA, 4 PA, 1 FL	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		<b>21.56</b>	<b>31.37</b>	<b>32.28</b>	<b>20.3</b>	<b>35.88</b>	<b>141.39</b>	<b>6 JRF, 16 FA, 8 PA, 1 FL</b>	

## Tropical Forest Research Institute, Jabalpur

## A. ONGOING PROJECTS (OG)

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11	12
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>											
OG-104	Status of sal heartwood borer, <i>Hoplocerambyx spinicornis</i> Newman and its management. Dr. N. Roy Choudhury, 5 years, 2011 - 2016	<del>14.02</del> 5.25	3.85	1.10	0.10	0.40	0.60	-	-	-	Approved for continuation. Budget outlay of project revised to Rs. 5.25 lakhs from 14.02 lakhs
OG-105	Studies on insect biocontrol agent, <i>Chrysoperla carnea</i> and its potentiality as insect predator. Shri Subhash Chandra Sonkar, 3 years, 2013-2016	<del>6.37</del> 5.00	2.34	2.29	0.20	1.00	0.25	-	0.84	1-FA	Approved for continuation. Budget outlay of project revised to Rs. 5.00 lakhs from 6.37 lakhs.
OG-106	Studies on effect of introduction of honey bee on seed production in teak seed orchards. ID No. 202. Dr. N. Kulkarni, 3 years, 2013-2016	<del>7.52</del> 4.75	1.75	2.39	0.10	0.85	0.60	-	0.84	1-FA	Approved for continuation. Budget outlay of project revised to Rs. 4.75 lakhs from 7.52 lakhs.
OG-107	Standardization of processing and storage techniques of Malkangni ( <i>Celastrus panuculatis</i> ), Baheda ( <i>Terminalia belerica</i> ) & Baividang ( <i>Embelia tsjeriam-cottam</i> ) fruits/seeds. Shri Hari Om Saxena, 3 years, 2013-2016	6.37	2.45	3.07	0.92	0.37	0.60	0.34	0.84	1-FA	Approved for continuation.
<b>TOTAL</b>		<b>21.37</b>	<b>10.39</b>	<b>8.85</b>	<b>1.32</b>	<b>2.62</b>	<b>2.05</b>	<b>0.34</b>	<b>2.52</b>	<b>3 FA</b>	

## Annexure-IX (TFRI)

<b>Thrust Area II: Biodiversity conservation and ecological security:</b>											
<b>OG-108</b>	Standardization of the techniques for germination, collection and maintenance of maximum viability of four important tropical species: <i>Bridelia retusa</i> , <i>Sterculia urens</i> , <i>Boswellia serrata</i> and <i>Saraca indica</i> . Dr. Maitreyee Kundu, 4 years, 2012-2016	8.46 4.50	2.20	2.24	0.30	0.50	0.60	-	0.84	1-FA	Approved for continuation. Total budget outlay revised to Rs 4.50 from Rs 8.46
	<b>TOTAL</b>	<b>4.50</b>	<b>2.20</b>	<b>2.24</b>	<b>0.30</b>	<b>0.50</b>	<b>0.60</b>	<b>-</b>	<b>0.84</b>	<b>1 FA</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>											
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>											
<b>OG-109</b>	Genetic improvement of <i>Dalbergia latifolia</i> Roxb. through selection and evaluation of germplasm in central India. ID No. 204. PI- Dr. Fatima Shirin, Duration- April 2013-March 2016 <b>Sub-project 1:-</b> Survey and selection of plus trees and establishment of progeny trials of <i>Dalbergia latifolia</i> .	13.56	2.00	2.30	-	0.36	0.50	-	1.44	1-JRF	Approved for continuation.
	<b>Sub-project 2:-</b> To refine existing micro-propagation protocols of <i>Dalbergia latifolia</i> for production of improved planting stock.	11.81	1.63	3.24	1.00	0.30	0.50	-	1.44	1-JRF	Approved for continuation.
<b>OG-110</b>	Collection and morpho-molecular characterization of critically endangered <i>Litsea glutinosa</i> germplasm from Madhya Pradesh and Chhattisgarh. Dr. Naseer Mohammad, 3 years, 2013- 2016	<del>11.12</del> 6.00	2.20	3.44	1.40	0.85	0.35	-	0.84	1-FA	Approved for continuation. Budget outlay revised to Rs 6.00 lakhs from 11.12 lakhs.

## Annexure-IX (TFRI)

<b>OG-111</b>	"All India Coordinated programme for genetic improvement of Teak". with four sub projects: ID No. 193. PIs - (i) Dr. Yogeshwar Mishra, (ii) Dr. R. Sett, (iii) Ms. Trisa Dominic, Dr. S.A. Ansari, 10 years, 2012- 2022	412.68	13.24	40.56	6.50	4.70	6.00	20.00	3.36	1-SRF 2-FA	Approved for continuation.
	<b>TOTAL</b>	<b>444.05</b>	<b>19.07</b>	<b>49.54</b>	<b>8.9</b>	<b>6.21</b>	<b>7.35</b>	<b>20.00</b>	<b>7.08</b>	<b>1 SRF, 2 JRF, 3 FA</b>	
	<b>GRAND TOTAL</b>	<b>469.92</b>	<b>31.66</b>	<b>60.63</b>	<b>10.52</b>	<b>9.33</b>	<b>10</b>	<b>20.34</b>	<b>10.44</b>	<b>1 SRF, 2 JRF, 7 FA</b>	

**B. ONGOING PROJECTS (OG) WITH CHANGE REQUEST (CR)**

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Approx. expenditure till 31 <sup>st</sup> March 2015	Details of budget required for 2015-2016 (Rs. in lakhs)						Recommendations of RPC (2015-2016)
				Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16					
					Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
<b>OG-112 CR-27</b>	Studies on the causes of <i>Gmelina arborea</i> mortality in plantation of MP, CG and its integrated management. Dr. R.K. Verma, 3 years, 2013 – 2016 ( <b>Change request</b> )	<b>2.8</b>	1.40	0.90	0.10	0.20	0.60	-	-	Approved one year extension up to 2017 within approved budget outlay of Rs 2.80 lakhs
<b>OG-113 CR-28</b>	Evaluation of <i>Schleichera oleosa</i> (Kusum) fruits for their nutritional value and development of value added products for economic development of local people. Hari Om Saxena, 3 years, 2012 – 2015( <b>Change request</b> )	3.56	1.274	2.24	0.60	0.40	0.40	0.00	0.84	Approved for one year extension up to 2016 within approved budget.
	<b>TOTAL</b>	<b>6.36</b>	<b>2.674</b>	<b>3.14</b>	<b>0.7</b>	<b>0.6</b>	<b>1</b>	<b>0</b>	<b>0.84</b>	

## Annexure-IX (TFRI)

<b>Thrust Area II: Biodiversity conservation and ecological security: NIL</b>										
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>OG-114 CR-29</b>	Collection of germplasm of <i>Madhuca indica</i> J. F. Gmel for identification of best sources in Chhattisgarh through phytochemical Evaluation. Dr. Fatima Shirin, 3 years, 2013-2015 ( <b>Change request</b> )	11.04		2.14	0.75	0.30	0.25	-	0.84	Approved for 1 year extension up to 2016 within sanctioned budget outlay.
<b>TOTAL</b>		<b>11.04</b>		<b>2.14</b>	<b>0.75</b>	<b>0.30</b>	<b>0.25</b>	<b>-</b>	<b>0.84</b>	
<b>GRAND TOTAL</b>		<b>17.40</b>	<b>2.674</b>	<b>5.28</b>	<b>1.45</b>	<b>0.9</b>	<b>1.25</b>	<b>0</b>	<b>1.68</b>	

## C. New Projects:

S. No.	Project title/PI/Duration (Start and end year)	Total budget outlay (Rs. in lakh)	Details of budget required for 2015-2016 (Rs. in lakhs)						Required Manpower (RA/SRF/JRF/ PA/ FA etc.)	Recommendations of RPC (2015-2016)
			Budget Requirement for 2015-16	Sub Head wise breakup for 2015-16						
				Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship		
1	2	3	4	5	6	7	8	9	10	11
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth:</b>										
<b>NW-84</b>	Field evaluation of biopesticides, ivermectin and spinosad against major insect larval defoliators. Dr N Roychoudhury, 3 years, 2015-2018	6.37	1.94	0.10	0.80	0.20	-	0.84	1-FA	Approved. Implementation of project will be allowed only after PI submits the pending PCR to ICFRE.
<b>NW-85</b>	Development of fast food products enriched with <i>Moringa oleifera</i> (Drumstick) leaves and skill upgradation training to rural women. Dr Vishakha Kumbhare, 3 years, 2015-2018	6.00	2.07	0.40	0.62	0.30	0.75	-	-	Approved. Follow food safety standards and food technology expert may be involved
<b>TOTAL</b>		<b>12.37</b>	<b>4.01</b>	<b>0.50</b>	<b>1.42</b>	<b>0.50</b>	<b>0.75</b>	<b>0.84</b>	<b>1 FA</b>	

**Annexure-IX (TFRI)**

<b>Thrust Area II: Biodiversity conservation and ecological security:</b>										
<b>NW-86</b>	Studies on maturation and viability of seeds of five important tropical species: <i>Adina cordifolia</i> , <i>Mitragyna parviflora</i> , <i>Lannea coromandelica</i> , <i>Ougeinia oojeinensis</i> and <i>Anogeissus acuminata</i> for effective collection and seed storage. Dr. M. Kundu, 4 years 2015-2019	8.86	2.39	0.40	0.55	0.60	-	0.84	1-FA	Approved. Implementation of project will be allowed only after PI submits the pending PCR of RFRI to ICFRE hqrs
<b>NW-87</b>	Documentation of biodiversity of forest fungi of central India, Dr. R K Verma, 3 years, 2015-2018	10.98	3.38	0.15	0.45	0.50	-	2.28	1-JRF 1-FA	Approved
<b>EF-21</b>	Ecological assessment and socio-economic impacts of reclaimed Coal mine overburden dumps by Western Coalfield Limited in PENCH area, District- Chhindwara, Madhya Pradesh. Mamta Meshram, 3 years, 2015-2018	5.66	-	-	-	-	-	-	-	Approved. For external funding
<b>NW-88</b>	Documentation of insect fauna of mangrove ecosystems in Odisha. Dr. N. Roychoudhury, 3 years, 2015-2018	9.27	2.84	0.40	0.50	1.10	-	0.84	1-FA	Approved. 'Insect fauna' in the title replaced by 'insect fauna and flora' and accordingly the first objective of the project is to be changed. Ensure extensive literature survey. Add Co-PI to also document flora. Implementation of project will be allowed only after PI submits the pending PCR of RFRI to ICFRE hqrs

**Annexure-IX (TFRI)**

<b>NW-89</b>	Biodiversity, Regeneration and life-history feedback of forest communities in response to canopy openings under selection cum improvement felling system. Dr Sanjay Singh, 5 years, 2015-2020	16.92	4.54	1.00	0.90	1.20	-	1.44	1-JRF	Approved
<b>NA-14</b>	Long-term ecological research of plant communities in a permanent/preservation plot of tropical deciduous forest in Madhya Pradesh. M. Rajkumar, 3 years, 2015-2018	10.17	-	-	-	-	-	-	-	Withdrawn by Director TFRI. Director. Data available with Director SFRI
	<b>TOTAL</b>	<b>61.86</b> <b>46.03</b>	<b>13.15</b>	<b>1.95</b>	<b>2.4</b>	<b>3.4</b>	<b>0</b>	<b>5.4</b>	<b>2 JRF, 3 FA</b>	
<b>Thrust Area III: Forests and climate change: NIL</b>										
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement:</b>										
<b>NW-90</b>	Studies on improving adventitious rooting in <i>Dalbergia latifolia</i> Roxb. and field performance of its rooted plantlets. Dr Pramod Kumar, 5 years, 2015 – 2020	11.80	2.34	0.50	0.70	0.30	-	0.84	1-FA	Approved. This project may be incorporated as component of ongoing project OG 109.
	<b>TOTAL</b>	<b>11.80</b>	<b>2.34</b>	<b>0.50</b>	<b>0.70</b>	<b>0.30</b>	<b>-</b>	<b>0.84</b>	<b>1 FA</b>	
	<b>GRAND TOTAL</b>	<b>86.03</b> <b>70.20</b>	<b>19.5</b>	<b>2.95</b>	<b>4.52</b>	<b>4.20</b>	<b>0.75</b>	<b>7.08</b>	<b>2 JRF, 5 FA</b>	

**D. Budget Summary of Ongoing and New Projects:**

Sl. No.	Research Projects	Total Budget Outlay (Rs. in lakhs)	Sub Head wise breakup of budgetary requirement (Rs. In lakhs) for 2014-15						Man Power	
			Consumables (M&S)	Research Expenditure (FRE)	Travel and Conveyance (Res-TE)	Capital (Scientific Equipments)	Fellowship	Total		
1	Ongoing Projects	487.32	11.97	10.23	11.25	20.34	12.12	65.91	1 SRF, 2 JRF, 7 FA	Priority is to be given for completion of ongoing projects. All necessary budget support is to be given to ongoing projects before starting new projects.
2	New Projects	70.20	2.95	4.52	4.2	0.75	7.08	19.50	2 JRF, 5 FA	New projects will be started subject to (a) availability of funds after fulfilling liability of ongoing projects, and (b) submission of pending PCRs by the PI.
	<b>Total</b>		14.92	14.75	15.45	21.09	19.2	85.41	1 SRF, 4 JRF, 12 FA	

## Completed Projects

### Arid Forest Research Institute, Jodhpur

Sl.No.	Project title/ PI/ Duration	Total Budget Outlay (Rs in lakhs)
<b>1</b>	<b>2</b>	<b>3</b>
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>		
1	Innovative approaches for augmentation of composting and biofertilizer production in hot arid regions. PI: Dr.K. K. Srivastava, 2010-15	4.0
2	Evaluation of antifungal potential and identification of broad spectrum antifungal compound from selected tree/shrubs/weeds of Indian arid region. PI: Smt. Bhawana Sharma, 2009-15	9.0
<b>Thrust Area II: Biodiversity conservation and ecological security – NIL</b>		
<b>Thrust Area III: Forests and climate change – NIL</b>		
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement – NIL</b>		
3	Study of salt tolerance through gene expression pattern analysis. PI: Dr. Tarun Kant, 2010-15	22
4	Investigations on genetic variation and inheritance of Western Indian teak ( <i>Tectona grandis</i> L.f). PI: Shri P.H. Chawahan, 2009-15	20.7
5	Development of tissue culture technology for multiplication of economically important desert plant- <i>Salvadora persica</i> . PI: Dr. I.D. Arya, 2009-15	9.6
6	Screening of high oil and Azadirachtin in Neem. PI: Dr. U.K. Tomar, 2012-15	9.08

### Forest Research Institute, Dehradun

Sl.No.	Project title/ PI/ Duration	Total Budget Outlay (Rs in lakhs)
<b>1</b>	<b>2</b>	<b>3</b>
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>		
7	Vacuum press drying studies of <i>Melia 83radesh8383</i> . PI: Shailendra Kumar, 2012- 2015	3.35
8	Studies of effect of Nanoclay (sodium montmorillonite) as filler on physical and mechanical properties of wood based composites. PI: Ismita Nautiyal, 2012-2015	4.3
9	Refining of process for detoxification studies of Jatropha seed oil. PI : Dr. Vineet Kumar, 2010-15	7.96
10	Enzyme aided alternative process for the extraction of oil from <i>Cymbopogon 83radesh83</i> (lemon grass), PI: Dr. Rashmi, 2011-15	5.97
11	Phytochemical studies on Medicinally <i>Diploknema butyracea</i> (Indian Butter Tree) seeds, PI: Dr. Rashmi, 2010-15	6.12
12	Refinement in vacuum timber dryer designed by FRI and its performance studies. PI: N.K. Upreti, 2012-15	2
13	Chemical modification of wood for durability improvements. PI: Sh. Ajmal Samani, 2011-15	6.66
14	Studies on thrips of forest and medicinal plants, problems caused by them and their management in uttatakhand PI: Dr. Neena Chauhan, 2011-15	9

**Annexure-X (Completed/Closed projects)**

15	Evaluation of <i>Santalum album</i> grown in plateau area of Uttar Pradesh adjoining Madhya Pradesh and Uttarakhand for yield, quality and composition of essential oil. PI: Dr. Rakesh Kumar, 2011-15	3.9
16	Development of molecular diagnostic kits for identification and early detection of nursery and plantation pathogens of Eucalyptus. PI: Dr. Amit Pandey, 2011-15	12.53
17	Enhancing fodder productivity through silvi-pasture system on degraded land of India. Charan Singh, 5 years, 2012 – 2017 ( <b>Project closed</b> )	8.00
18	Study on status of agroforestry systems existing in Punjab, Haryana, Uttarakhand and North-West region of Uttar Pradesh. Sandeep Kujur, 3 years, 2012 -2015 ( <b>Project closed</b> )	17.10
<b>Thrust Area II: Biodiversity conservation and ecological security</b>		
19	Impact of invasive species on plant diversity in selected forest sites of Uttarakhand, Haryana and Punjab. PI: Dr. Anup Chandra, 2012-15	8.67
20	Studies on Taxonomy of the family Encyrtidae (Hymenoptera: Chalcidoidea) present in National Forest Insect Collection (NFIC) except Doon Valley. PI: Dr. Sudhir Singh, 2010-15	6
21	Interaction between <i>Pseudomonas fluorescens</i> and AM fungus on <i>Dendrocalamus strictus</i> . Dr. Y P Singh, 2010-15	12.56
22	Phyto-remediation of water logged waste land through Biodrainage & soil amendments. PI: Dr. Kumud Dubey, 2010-15 (CSFER, Allahabad)	9.9
<b>Thrust Area III: Forests and climate change</b>		
23	AICP on elevated CO <sub>2</sub> . PI: Dr. Hukum Singh, 2012–15	48
24	Process based Carbon sequestration study. Dr. Hukum Singh (2012-2017) ( <b>Project closed on the request of FRI. Funds received from DST</b> )	47.17
<b>Thrust Area IV: Forest Genetic Resource Management and Tree Improvement</b>		
25	Evaluation of <i>Bombax ceiba</i> for seeds sources in Northern India. Dr Dinesh Kumar, 2011-2015	13.39
26	Population genetic analysis of Himalayan Banj Oak ( <i>Quercus leucotrichophora</i> ) forests and its pertinence to genetic conservation. PI: Dr. H S Ginwal, 2011-15	24.45

**Himalayan Forest Research Institute, Shimla**

Sl. No.	Project title/ PI/ Duration	Total Budget Outlay (Rs in lakhs)
<b>1</b>	<b>2</b>	<b>3</b>
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>		
27	Isozyme Variation in Natural Populations of <i>Pinus gerardiana</i> (NEOZA PINE). PI: Dr. Rajesh Sharma, 2011-2015	13.7
<b>Thrust Area II: Biodiversity conservation and ecological security - Nil</b>		
<b>Thrust Area III: Forests and climate change - Nil</b>		
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement</b>		
28	Population Genetic Analysis of Himalayan Banj Oak ( <i>Quercus leucotrichophora</i> ) forests and its pertinence to Genetic Conservation. PI: Dr. Rajesh Sharma, 2011-2015	5

### Institute of Forest Biodiversity, Hyderabad

Sl. No	Project title/ PI/ Duration	Total Budget Outlay (Rs in lakhs)
1	2	3
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth: NIL</b>		
29	Development of agro-forestry models in <i>Wrightia tinctoria</i> R.Br. and <i>Gmelina arborea</i> Roxb as tree species in semiarid tropics of Andhra Pradesh. PI: Mr. M.B. Honnuri, 2009-15	10.32
<b>Thrust Area II: Biodiversity conservation and ecological security: NIL</b>		
<b>Thrust Area III: Forests and climate change: NIL</b>		
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement</b>		
30	Establishment and evaluation of multilocational trials of <i>Melia azedarach</i> L. and <i>Melia dubia</i> Cav. (2011-15)	18
31	Molecular assessment of breeding patterns in clonal seed orchards of Teak in Andhra Pradesh. PI: Dr. Swapendu Pattanaik, 2011-15	26

### Institute of Forest Genetics and Tree Breeding, Coimbatore

Sl.No.	Project title/ PI/ Duration	Total Budget Outlay (Rs in lakhs)
1	2	3
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>		
32	Tree rich biobooster: A Novel approach to synergise growth and pest management in fast growing industrially important tree species. PI: Dr. S. Murugesan, 2012-15	25.094
33	Introduction and evaluation of fast growing tree species in different agr-oclimatic zones of Tamil Nadu. PI: Shri. S. Saravanan, 2010-15	17.55
<b>Thrust Area II: Biodiversity conservation and ecological security: NIL</b>		
<b>Thrust Area III: Forests and climate change: Nil</b>		
34	Response of mycorrhizae and microbial symbionts to elevated CO <sub>2</sub> in commercially important tree species. PI: Dr. A. Karthikeyan, 2011-15	9.7
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement</b>		
35	Study of variation in <i>Pterocarpus santalinus</i> for growth and heartwood content according to edaphic and climatic factors in Tamil Nadu PI: Dr. Maheshwar Hegde, 2010-15	11.24
36	Developing breeding populations of teak with broad genetic base for long term genetic improvement. PI: Dr. B. Gurudev Singh, 2012-15	9.4
37	Chemo typing of <i>Sapindus emarginatus</i> – A potential NTFP of Tamil Nadu for saponins (NFRP-91). PI: Dr. R. Anandalakshmi, (5 years)	23.15
38	Genetic improvement of Casuarina species through second generation orchard. PI: Dr. A. Nicodemus, 2008-15	43.28
39	Developing clonal technology for raising clonal Plantation of indigenous species <i>Ailanthus excelsa</i> and <i>Ailanthus triphyssa</i> in Tamil Nadu and Kerala. PI: D. Rajasugunasekar, 2010-15	18.68
40	Selection and vegetative propagation of <i>Neolamarkia cadamba</i> (Roxb.) Miz- An alternaive species for pencil, matchwood and plywood industries. PI: Dr. A. Vijayaraghavan 2010-15	18.50

## Annexure-X (Completed/Closed projects)

## Institute of Forest Productivity, Ranchi

Sl.No.	Project title/ PI/ Duration	Total Budget Outlay (Rs in lakhs)
1	2	3
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>		
41	Introduction of selected genotypes of Karanj, Kusum and Bamboo as tree components in Agroforestry models in lateritic belt of eastern India. PI: Dr. Animesh Sinha, 2011-15 (4 yrs)	14.995
<b>Thrust Area II: Biodiversity conservation and ecological security: Nil</b>		
<b>Thrust Area III: Forests and climate change: NIL</b>		
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement</b>		
42	Studies on pollarding and propagation in Kusum ( <i>S. oleosa</i> ) for lac cultivation. PI: Dr. Animesh Sinha, 2011-15 (4 yrs)	10
43	Assessment of variability and genetic fingerprinting in <i>Pongamia pinnata</i> (L.) Pierre using microsatellite markers. PI: Dr. Sanjay Singh, 2010-15	26.09

## Institute of Wood Science &amp; Technology, Bengaluru

Sl.No.	Project title/ PI/ Duration	Total Budget Outlay (Rs in lakhs)
1	2	3
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>		
44	Effect of flowering on culm quality of <i>Dendrocalamus brandisii</i> and to explore its potential for making bamboo composite products. PI: Dr. Amita Pandey, 2012-15	10.23
45	Variability of growth stresses in <i>Melia composita</i> . PI: Dr. Pankaj Aggarwal, 2013-15	4.67
46	Chemical derivatization of a-cellulose into value added products. PI: Dr. Surendra Singh Bisht, 2010-15	15
47	Evaluation of the performance of steam Volatile Creosote (SVC) as a wood preservative. PI: Dr. S. Mohan, 2010-15	7.905
48	Screening of oils of <i>Pongamia pinnata</i> , Linn. <i>Jatropha curcus</i> Linn. and <i>Simarouba glauca</i> . D.C for developing eco-friendly wood preservatives. PI: D. Venmalar, 2010-15	20.21
49	Screening of certain plant extractives for developing eco-friendly wood preservatives. PI: D. Venmalar, 2010-15	5.69
50	Growth and yield studies on forest plantations of teak in Karnataka for their sustainable management PI: Dr. V.P. Tiwari, 2010-15	17.51
51	Development of Sandal ( <i>Santalum album</i> ) information system. PI: Mr. V. Soundararajan, 2011-14 ( <b>Change Request</b> )	5
<b>Thrust Area II: Biodiversity conservation and ecological security: Nil</b>		
<b>Thrust Area III: Forests and climate change: NIL</b>		
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement</b>		

## Annexure-X (Completed/Closed projects)

## Rain Forest Research Institute, Jorhat

Sl.No.	Project title/ PI/ Duration	Total Budget Outlay (Rs in lakhs)
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>		
52	Study on post flowering regeneration status of <i>Melocanna baccifera</i> in Tripura. Dr. Dhruva Jyoti Das/, Dr. T. C. Bhuyan, A.K. Deka, DCF, 2012-15 / Dr. Kaushik	16.56
53	Preliminary phyto-chemical analysis of <i>Abroma augusta</i> L. No. RFRI-42/2010-11/SFM.(Sub Proj.-C). PI: Dr. S.C. Biswas, 2013-15	3.68
<b>Thrust Area II: Biodiversity conservation and ecological security</b>		
54	Ecology, utilization and conservation of <i>Garcinia</i> species in upper Brahmaputra valley Assam. PI: Dr. D. Dutta, 2012-15	17.85
55	Studies on the incidence and management of pine mortality in Manipur (RFRI-38/2010-11/FP) PI: Dr. R.K. Borah, 2011-15	11.17
56	Ecological studies on monitoring the distribution patterns and food plant resources of butterflies along altitudinal gradients in different forest ecosystems of the Eastern Himalayas. (RFRI-36/Eco. & Bio./2011-12), PI.: Dr. A.P. Singh, 2011-15	15.23
57	Effect of endomycorrhizae along with other bio-agents on biomass production, conservation and accumulation of some phytochemicals in <i>Abroma augusta</i> L. Screening of Endomycorrhizae and bioagents in rhizosphere of <i>Abroma augusta</i> L. and their role in its propagation and conservation. No. RFRI-42/2010-11/SFM.(Sub Proj.-A), Dr. Vipin Parkash, 2011-15	16.61
<b>Thrust Area III: Forests and climate change</b>		
58	Rehabilitation of degraded jhum land through potential bamboo species with reference to carbon sequestration and livelihood development. PI: Dr. I.P. Bora, 2009-15	16.12
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement: Nil</b>		

## Tropical Forest Research Institute, Jabalpur

Sl.No.	Project title/ PI/ Duration	Budget Outlay (Rs in lakhs)
<b>Thrust area I: Managing Forests and Forests Products for livelihood support &amp; economic growth</b>		
59	Development of lac based agroforestry (Silvi-Agri-Lac) system. 163/TFRI/2010/Agro – 2(17), PI: Dr. Nanita Berry, 2010-15	7
60	Eco-friendly management of bark eating caterpillar, <i>Indarbela quadrinotata</i> on aonla ( <i>Emblica officinalis</i> ) in plantations. 188/TFRI/ 2012/ Ento.- 1(32), PI: Dr. P.B. Meshram, 2012-2015	6.57
61	Development of rearing technique for production of insect predator, <i>Canthecona furcellata</i> , as biocontrol agent for larval defoliators. 189/TFRI/2012/Ento.- 2 (33), PI: Shri Subhash Chandra, 2012-15	7.52
62	Evaluation of phyto-polymers as eco-friendly bioadhesives. 191/TFRI/2012/NWFP.- 3 (35), PI: Smt. Neelu Singh, 2012-15	9.91
63	Chemo-profiling of some <i>Dasmoola</i> species ( <i>Uraria picta</i> , <i>Solanum indicum</i> and <i>Solanum xanthocarpum</i> ) in MP. PI: Hari Om Saxena, 2011-15	5
64	Evaluation of non edible oilseeds for development of surfactants and their utilization in pest management. PI: Mrs. Neelu Singh, 2011-15	14.7
<b>Thrust Area II: Biodiversity conservation and ecological security: Nil</b>		
<b>Thrust Area III: Forests and climate change: NIL</b>		
<b>Thrust area IV: Forest Genetic Resource Management and Tree Improvement</b>		
65	Studies on assessment of genetic diversity and structure of <i>Boswellia serrata</i> Roxb. populations through RAPD and ISSR molecular markers. PI: Dr. Pramod Kumar, 2011-15	13.41

## Status of Externally Aided Projects/Consultancies of ICFRE Institutes

**Table: Projects / consultancies funded by sources other than ICFRE for 2014-2015 (1<sup>st</sup> April, 2013 – 31<sup>st</sup> March, 2015)**

Institutes	Ongoing (EAPs)		Submitted (EAPs)		Completed (EAPs)		Total No. of Consultancies Projects
	Total No. of Projects	Total Budget Outlay (Rs. in lakhs)	Total No. of Projects	Total Budget Outlay (Rs. in lakhs)	Total No. of Projects	Total Budget Outlay (Rs. in lakhs)	
<b>AFRI, Jodhpur</b>	15	251.94	6	138.40	3	34.81	4
<b>FRI, Dehradun</b>	28	1320.16	18	850.40	2	21.76	2
<b>CSFER, Allahabad</b>	2	29.84	1	30.17	0	0	0
<b>HFRI, Shimla</b>	12	242.20	7	172.12	1	11.31	1
<b>IFGTB, Coimbatore</b>	22	547.39	13	915.13	5	74.61	1
<b>IFP, Ranchi</b>	5	1511.35	5	187.89	2	72.40	1
<b>IFB, Hyderabad</b>	4	70.68	2	98.21	1	20.00	4
<b>IWST, Bengaluru</b>	21	374.00	4	55.58	5	54.89	0
<b>RFRI, Jorhat</b>	4	168.30	7	394.58	2	104.83	3
<b>TFRI, Jabalpur</b>	19	333.90	8	105.33	2	23.21	2
<b>CFRHRD, Chhindwara</b>	1	9.920	0		0	0	0
<b>ICFRE, HQs</b>	10	2679.09	3	481.73	5	1555.16	1
<b>TOTAL</b>	<b>143</b>	<b>7538.77</b>	<b>74</b>	<b>3429.54</b>	<b>28</b>	<b>1972.98</b>	<b>19</b>

### Ongoing Externally Aided Projects (EAPs)

#### 1. Indian Council of Forestry Research and Education, Dehradun

##### 1a. Biodiversity and Climate Change Division, Directorate of Research, ICFRE

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators / collaborating institutes	Remarks
1.	REDD Plus Pilot project in the van panchayat (village community forests) of Uttarakhand	Sh. V.R.S. Rawat Scientist E	3 Years Nov 2013 to Dec2016	77.17	7.00	18.84	Uttarakhand Forest Department	Uttarakhand Forest Department	
2.	Study cum survey to assess demand and supply of medicinal plants in India – in the national perspective, as well as in the respect of international market	Dr. G. S. Goraya	1 Years 25 Feb 2015 to 24 Feb 2016	127.00	-	127.00	National Medicinal Plant Board, New Delhi		
3.	Enhancing Capacity for Alignment of National Action Programme to 10 Year Strategy of UNCCD and for National Reporting to UNCCD Secretariat	Dr. T.P. Singh National Project Director	February 2014 to 30 June 2015	89.10	40.00	49.10	Global Environment Facility		

##### 1b. Environment Management Division, Directorate of Extension, ICFRE,

S. No.	Project / Consultancy title	Principal investigator	Duration (Start & end date)	Total budget outlay (Rs. In Lakhs)	Tentative expenditure till march 2015 (2014-15) (Rs. In Lakhs)	Budget for 2015-16 (Rs. In Lakhs) Approx.	Full name of funding agency (National/ International)	Collaborators/ collaborating institutes	Remarks
1.	Comprehensive EIA and EMP of Sankosh Multipurpose Project in Bhutan.	<b>DG</b> -Team leader, <b>DDG (Extn.)</b> - Deputy team leader <b>ADG (EM)</b> - Project coordinator	18.6.2009	83.79	00.07	10.00	Tehri Hydro Development Corporation India Ltd.	ICFRE (FRI, IFGTB, IWST, IFB) and M/s Mantec Consultants Pvt. Ltd., Noida	Draft final report under synthesis, Public consultation meeting awaited
2.	EIA & EMP, Socio-	<b>DG</b> -Team leader,	25.10.201	36.15	00.00	10.00	Himachal	ICFRE (HFRI,	DPR of the

**Annexure-XI (Ongoing/EAP)**

	Economic Baseline Survey and Social Impact Assessment of Beri- Nichli (Triveni Mahadev) HEP (78 MW) HEP Project	<b>DDG (Extn.)-</b> Deputy team leader <b>ADG (EM)-</b> Project coordinator	0				Pradesh. Himachal Pradesh Power Corporation Limited	Shimla) and M/s Mantec Consultants Pvt. Ltd., Noida	project under revision
3.	EIA & EMP, Socio-Economic Baseline Survey and Social Impact Assessment of Thana Plaun HEP (141 MW) HEP Project, Himachal Pradesh.	<b>DG</b> -Team leader, <b>DDG (Extn.)-</b> Deputy team leader <b>ADG (EM)-</b> Project coordinator	25.10.2010	48.50	10.00	10.00	Himachal Pradesh Power Corporation Limited	ICFRE (HFRI, Shimla) and M/s Mantec Consultants Pvt. Ltd., Noida	Draft final report under synthesis
4.	Reclamation and Rehabilitation Plan” for 166 mine affected areas of Bellary, Chitradurga and Tumkur Districts, Karnataka and preparation of Comprehensive SMP of these three districts of Karnataka.	<b>DG</b> -Team leader, <b>DDG (Extn.)-</b> Deputy team leader <b>ADG (EM)-</b> Project coordinator	27.12.2011	1400.00	74.00	100.00	Karnataka State Official Authority	ICFRE (IWST, Bangalore, IFGTB, Coimbatore and IFB, Hyderabad)	-
5.	Cumulative EIA & EMP (CEIA) Studies of Hydro-Electric Projects of Sutlej river basin in HP	<b>DG</b> -Team leader, <b>DDG (Extn.)-</b> Deputy team leader <b>ADG (EM)-</b> Project coordinator	01.02.2012	291.94	46.00	20.00	Directorate of Energy, Govt. of H. P.	ICFRE (HFRI, Shimla), SACON, Coimbatore, DCFR, Bhimtal and IIT Roorkee	Draft Report Submitted
6.	Comprehensive study for Cumulative EIA of Hydropower Projects on River Yamuna and Tons & its Tributaries in Uttarakhand	<b>DG</b> -Team leader, <b>DDG (Extn.)-</b> Deputy team leader <b>ADG (EM)-</b> Project coordinator	03.07.2012	225.44	11.00	20.00	Uttarakhand Jal Vidyut Nigam Limited (UJVN Ltd.) “Ujjwal”, Dehradun	ICFRE , SACON, Coimbatore, DCFR, Bhimtal and IIT Roorkee	Draft Report Submitted
7.	Carrying Capacity Study of Saranda region in West Singhbhum District, Jharkhand	<b>DG</b> -Team leader, <b>DDG (Extn.)-</b> Deputy team leader <b>ADG (EM)-</b> Project coordinator	2014	270.00	-	100.00	Ministry of Environment, Forests and Climate Change (MoEFCC)	ICFRE (IFB, IFGTB, IFP), WII and CIMFR, Dhanbad	-

## 2. Arid Forest Research Institute (AFRI), Jodhpur

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators / collaborating institutes	Remarks
1.	Documentation of Important Research Findings and Technologies for Applications to Forestry in Rajasthan.	Dr. G. Singh, Scientist F	2013 - 15	11.66	11.6	-	State Forest Department, Rajasthan	-	
2.	Studies on the effects of MPOWER programme on mitigation and adaptation towards Climate Change in western Rajasthan.	Dr. G. Singh, Scientist F	2013 - 15	8.88	8.88	-	MPOWER	-	
3.	Phytoremediation of soil for productivity enhancement during land disposal of effluent.	Dr. Abha Rani, Scientist E	2013-18	24.15	12.00	5.16	State Forest Department, Rajasthan	-	
4.	Identification of Extent of Forest Lands in Forest Fringe Villages (Rajasthan & Gujarat).	Sh. S. R. Baloch, Sci-B (Nodal officer)	2012-14	29.20	24.76	3.50	NRAA	FRI, Dehradun	
5.	Species evaluation for landscaping and restoration of degraded Aravalli hills at IIM campus, Udaipur (project).	N. Bala, Scientist -F	2014-17	15.31	0.65	2.89	IIM Udaipur	-	Initiated in August 2014
6.	Productivity enhancement of Kair ( <i>Capparis decidua</i> ) to generate livelihood in rural areas of Thar Desert (AFRI-07/NWFP/Ext (SFD Rajasthan)/2013-16).	Dr. Ranjana Arya, Sc-G, NWFP Division	Three years (2013-16)	15.13 + Institutional charges	6.32 till Dec 2014	Rs 4.03	SFD, Rajasthan	SFD, Rajasthan	In progress
7.	Studies on alternative timber handicraft industries	Dr. Ranjana Arya, Sc-G	Three years	11.41	0.61	3.00	DST, New Delhi	Handicraft Industries,	In progress

**Annexure-XI (Ongoing/EAP)**

8.	Optimization of processing methods for <i>Prosopis cineraria</i> and <i>Capparis decidua</i> fruits for their improved utilization in western Rajasthan.	Dr. Mala Rathore, Sc-D	Three years(2014-17)	34.79	1.32	6.51	DST, New Delhi	Nil	In progress
9.	Documentation of neem products and their role in socio-economic upliftment of rural livelihood in Rajasthan and Gujarat.	Smt. Sangeeta Tripathi, R.O.	Three years(2014-17)	16.03.	1.44	5.08	DST, New Delhi	Nil	In progress
10.	Demonstration of promising genotypes of <i>Jatropha</i> in Rajasthan state & training to farmers and stake holders.	Dr. D.K. Mishra	19.5.2010-31.3.15	8.25	6.00	NA	State Biofuel Authority, Jaipur	None	It is an extension project
11.	Development of package for integrated management of insect pests & diseases (IPDM) and improvement of planting stock material of neem ( <i>Azadirachta indica</i> ) through biofertilizers.	Dr. Sangeeta Singh	02 May 2014 to 01 May 2017	15.99	6.37	4.70	Department of Science and Technology, New Delhi (National)	Nil	
12.	Utilization of Biotechnological tools for clonal propagation and supply of Genetically superior trees of neem, ardu and bamboos.	Dr. ID Arya	3years (April 2013-March 2016)	22.86	12.32	7.62	State Forest Department ,Gujarat	Nil	
13.	Standardization of non destructive harvesting practices of <i>Commiphora wightii</i> gum oleogum resin.	Dr. U.K.Tomar	(1 <sup>st</sup> April 2014 to March 2017)	11.80	1.50	3.84	National Medicinal Plant Board , New Delhi	TFRI, Jabalpur	
14.	Productivity studies and modelling growth & yield in Teak plantations in Gujarat State AFRI-96/silvi/JBIC/SFD Guj	Late Dr. Sunil Kumar, Sci-E, Dr. Bilas Singh nominated	2010-2015+ One year extension	12.21	7.80	2.64	State Forest Department Gujarat	None	One more extension has been requested
15.	Studies on seed insect pest of indigenous and exotic forest tree species and to develop IPM package for major insect damages in Gujarat (AFRI-107/FPD/ SFD-GUJ/ 2011-15)	Dr. Meeta Sharma, Research Officer,	4 years (1st April 2011 to 31st March 2015)	14.272	14.272	NIL	State Forest Department, Gujarat	NIL	Project is running as per schedule will be completing on 31 March, 2015.

## 3. Forest Research Institute (FRI), Dehradun

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/international)	Collaborators / collaborating institutes	Remarks
1.	Germplasm collection , evaluation and planting of <i>Jatropha</i> and <i>Karanj</i> for improved productivity and higher oil content	Dr. Ashok Kumar, Scientist D; G&TP	7 years (08 Oct, 2008 to March, 2015)	35.68928	33.36810	-	NOVOD	-	March 2015
2.	Identification of extent of forest in the forest fringe villages	Shri Shashikar Samanta, Head Forest Informatics	4 years (January, 2011 to March, 2015)	626.27	422.20127	-	NRAA, Delhi	-	Will be Completed on March, 2015 PI requested for 1 year extension beyond march, 2015)
3.	Study of reproductive biology of the endangered taxa <i>Trchycarpus takil</i> Becc (Arecaceae) , <i>Mahonia jaunsarensis</i> Ahrenelt (Berberidaceae), <i>Pittosporum erocaspum</i> Royle (Pittosporaceae) <i>Eremostachys superba</i> Royle ex Benth (Labiatae)	Meena Bakshi, Scientist D, Botany	October, 2010	29.33230	13.75679	-	MoEF	-	(Completion 2014-15) Funding agencies is requested to close the project due to non-receipt of funds and response about the new PI for the project after superannuation of Dr. Veena Chandra, then PI of the project.
4.	Study on the grass of Uttarakhand and Himachal Pradesh	Dr. Ranjana Negi, Sci. B, NWFP	5 years (Oct, 2010 to March, 2015)	18.47	15.75341	-	MoEF , Delhi	-	(Completion March, 2015)
5.	Setting of pilot scale facility for restructured bamboo boards and its trial for technology transfer	Dr. D. P. Khali, Sci -E FPD	3 years (April, 2012 to March, 2015)	9.12	4.52257	-	Tripura Forest Dept.	-	(Completion March, 2015)

**Annexure-XI (Ongoing/EAP)**

6.	Monitoring and evaluation of works carried out by Punjab Forest Department under all schemes including Greening Punjab Mission	Shri A. S. Rawat, Head, Silviculture	Oct, 2012 project will be continued depending on sides given by the PFD	100.01	81.51415	-	Punjab Forest Department	-	
7.	Development of Detailed Project Report (DPR) for Setting up of a large clonal nursery with state of art clonal propagation facility on Public-Private Partnership (PPP) model & coordinating the Planting Stock Improvement Programme of Punjab	Dr. H. S. Ginwal, Scientist F G&TP	5 years (October, 2012 to October, 2017)	130.00	18.67265	-	Punjab Forest Department	-	October, 2017
8.	Supply of Quality Seeds of Forestry species	Dr Manisha Thapliyal, Sci- E, Silviculture	Oct, 2012 project will be continued depending on request from PFD	12.00	10.84973	-	Punjab Forest Department		
9.	Demand and supply status of wood in Punjab	Dr. H. P. Singh, Sci – D, R S & M	3 years (Oct, 2012 to March, 2015)	25.00	20.00000	-	Punjab Forest Department		March, 2015
10.	Biological Control of Eucalyptus Gall Wasp, <i>Leptocybe invasa</i> .	Dr. Mohd. Yusuf, Sci – G, Entomology Division	5 years (October, 2012 to March, 2017)	25.0	13.98296	-	Punjab Forest Department		March, 2017
11.	Establishment of State Forest Research Institute, Ladhawal, Punjab Forest Department	Shri A. S. Rawat, Head, Silviculture	Oct, 2012 project will be continued depending on request from PFD	2.0	0.40000	-	Punjab Forest Department		
12.	Conservation and development of Guggal in Haryana.	Dr. A.K. Sharma, NWFP Division	2.3 year (Dec, 2012 to March, 2015)	5.0	1.43881	-	Haryana Forest Dept.		March, 2015

**Annexure-XI (Ongoing/EAP)**

13.	Multiplication conservation and promotion of Rengal cultivation for socio economic up liftment of hilly rurals in Uttarakhand	Dr. Meena Bakshi, Botany Division	March, 2013 to March, 2015	2.254	2.24304	-	UCOST		March, 2015
14.	To study the suitability of Combi-ply from <i>Melia composita</i> and Poplar	Dr. Ishmita Nautiyal, FPD	April 2013- March 2016	1.716	1.34224	-	UCOST		Completion on March, 2016
15.	Medicinal and edible Mushroom cultivation for income generation in rural area of Uttarakhand	Dr. N.S. K Harsh, Pathology Division	3 years (May, 2013 to March, 2016)	5.0	1.66607	-	UCOST		(Completion March 2016)
16.	Development of tissue culture protocol for propagation and conservation of Ginkgo biloba L.	Dr. J. M. S. Chauhan Scientist C	2 years	23.529		-	NMPB		Approved funds yet to be received
17.	Floral biodiversity Survey in the State of Bihar	Dr. S. Nautiyal, Botany Division	2 years Sept, 2013 to Sept 2015	65.26	15.00864	-	Bihar Forest Dept.		Sept., 2015 (Completion 2015-16)
18.	Bamboo genetics evaluation improvement and propagation	Dr. H.S. Ginwal, Sci F, G&TP	February, 2014 to February, 2016	BTSG-ICFRE ( NBM Project)	10.80078	-	NBM		Feb, 2016 (Completion 2015-16)
19.	Assisted Natural regeneration of Sal ( <i>Shorea robusta</i> ) forest of Uttarakhand	Head , Silviculture Division	April, 2014 to March, 2015	6.0	2.10503	-	Uttarakhand Forest Department		March 2015 (Completion 2014-15)
20.	Identification and reclamation of 10Ha. of degraded land and biodiversity development at NCL (Northern Coal Limited)	Dr. H.B Vashistha Scientist-E Ecology Division	January, 2014 to January, 2017	40.0	11.73066	-	NCL		January 2017 (Completion 2016-17)
21.	Soil Quality Index (SQI) for different land uses of Tehri Garhwal District of Uttarakhand	Dr Parul Bhatt, Scientist-C FSLR	2 years (April, 2013 to March, 2015)	1.69	2.43256	-	UCOST		March 2015
22.	Establishment of Common	Dr Sadhna	2 years	53.0	48.67151	-	NBM (through		March 2015

**Annexure-XI (Ongoing/EAP)**

	Facility Center for Bamboo Processing, Training and Research	Tripathi, Sci -F, FPD	2013-2015				BTSG-ICFRE)		(Completion 2014-15)
23.	Establishing a common facility center at Hoshiyarpur for wood industries and small scale wood works at Punjab	Dr. Sadhna Tripathi	2 years April, 2014 to March, 2016	31.26	1.56916	-	PSAMB (Punjab State Agriculture Marketing board )		
24.	Digitization of forest flora of Manipur	Dr. Anup Chandra Sci D, Bot Div	2 years Dec, 2013 to Dec, 2015	9.0	2.13735	-	Manipur Forest Deptt.		December, 2015
25.	Biodiversity conservation and micro-propagation of Sea buckthorn (Hippophae) of Uttarakhand	Dr. J.M.S. Chauhan, Scientist	3 years April, 2012 to March, 2015	4.81	4.20363	-	UCOST		March 2015
26.	Efficacy of Clothianidin 7.5 CS on termites in building construction	Dr. Shamila Kalia, Sci-E	January, 2012 to March, 2018	4.50	3.38297	-	Sumitomo Chemical India Pvt. Ltd. Mumbai		Ongoing
27.	Studies on chemoenzymatic treatment of black liquor for recovery of reducing sugars for bioethanol production.	Dr. P. K Gupta, C& P	3 years April, 2014 to March, 2017	15.52	2.04609	-	DBT New Delhi		December, 2016 (Completion 2016-17)
28.	Afforestation of <i>Melia composita</i> willd in disaster areas of Uttarakhand	Dr. Ashok Kumar	2 years, 2014 to 2016	38.73	5.10470	-	National Seeds Corporation		

**Centre for Social Forestry and Eco-Rehabilitation (CSFER), Allahabad**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Socio Economic Impact Study of mining & mining Policies on livelihoods of local population in Vindhyan Region, U.P.	Dr. Kumud Dubey	10 months July 2014 to April 2015	10.94	Up to 20-01-2015 Rs.3,10,498/-	-	Planning commission (Govt. of India)	CSFER, Allahabad under ICFRE, Dehradun	
2.	Development of Melia Dubia Based Agro Forestry System for Different Agroclimatic Zones of eastern U.P.	Dr. Kumud Dubey	September, 2014 to Sept, 2017	18.90	Up to 20-01-2014 Rs 52,859/-	-	Uttar-Pradesh council of agricultural research	CSFER, Allahabad under ICFRE, Dehradun	

## 4. Himalayan Forest Research Institute (HFRI), Shimla

S. N.	Project Title	Principal Investigator	Duration (Start & End Date)	Total Budget Outlay (Rs. in lakhs)	Approx. Expenditure during 2014-2015 (Rs. in lakhs)*	Budget for 2015-16 (Rs. in lakhs)	Full Name of Funding Agency (National / International)	Collaborators/ Collaborating Institutes	Remarks, if any
1.	Identification of Extent of Forest Land in Forest Fringe Villages. (Himachal Pradesh and Jammu & Kashmir).	Coordinated by the Director, FRI, Dehradun Dr. KS Kapoor, Sci-G for HFRI, himla	August, 2011 to June, 2014 (Project granted extension upto Dec, 2014, by the funding agency)	22.27 (Allocated to HFRI)	02.15	--	National Rainfed Area authority of India (NRAA), Govt. of India, New Delhi	All the regional research institutes of ICFRE	*Approximate expenditure have been shown upto December, 2014.
2.	Ecological Assessment and Prioritization of Floristic diversity: Developing Conservation Strategies for Shimla Water Catchment Sanctuary, Himachal Pradesh.	Dr. KS Kapoor, Scientist-G	April, 2014 to May, 2017 (Three years)	08.84	00.45	--	GBPIHED, Kosi - Katarmal, Almora	--	*Approximate expenditure have been shown upto December, 2014.
3.	Plant Diversity Studies in Shikari Devi Wild-life Sanctuary of District Mandi, Himachal Pradesh for Long Term Ecological Monitoring.	Dr. RK Verma, Scientist-F	April, 2014 to May, 2017 (Three years)	05.78	00.63	--	GBPIHED, Kosi-Katarmal, Almora	--	*Approximate expenditure have been shown upto Dec, 2014.
4.	Biological control of <i>Thysanoplusia orichalcea</i> (F.) (Lepidoptera: Noctuidae): A Potential Insect Pest of <i>Saussurea costus</i> in North-Western Himalayas and Extension of Protection Technology to local Communities.	Dr. Ranjeet Singh, Scientist-F	September, 2013 to August, 2016 (Three Years)	25.277	01.35	--	NMPB, Deptt. of AYUSH, Ministry of Health and Family Welfare, GOI, Third Floor, AYUSH Bhawan, B-Block, GPO Complex, INA, New Delhi	--	*Approximate expenditure have been shown upto December, 2014.

**Annexure-XI (Ongoing/EAP)**

5.	Taxonomy and molecular analysis (through RAPD-PCR) of moths (Lepidoptera) of Cold Deserts (Spiti and Leh) of Indian Himalayas.	Dr. Pawan Kumar, Scientist-D	May, 2012 to April, 2015 (Three Years)	19.68	00.82	--	DST (Young Scientist-Fast Track Scheme), GoI	--	*Approximate expenditure have been shown upto December, 2014.
6.	Ecological studies on distribution patterns and food plant resources of butterflies along altitudinal gradients in different ecosystems of Western Himalayan Sub-Alpine Forests of Himachal Pradesh.	Dr. Pawan Kumar, Scientist-D	May, 2013 to April, 2016 (Three Years)	29.575	01.97	--	Ministry of environment and Forests, Govt. of India, New Delhi		*Approximate expenditure have been shown upto December, 2014.
7.	Development of Gene Markers for High Seed Oil Content and Dissecting Molecular Basis of Female Flower Development in <i>J. curcus</i> toward its Genetic Improvement for High Seed Yield.	Project Coordinator : Dr. R.S. Chauhan (JUIT Solan); PI: Dr Sandeep Sharma, Sci-F (HFRI) PI: Dr Sudhir Syal (JUIT, Solan) PI: Dr Harvinder Singh (JUIT, Solan)	April, 2013 to Jan, 2016 (Three Years)	15.63	00.90	--	Department of Biotechnology, Govt. of India, New Delhi	It is a collaborative project between HFRI, Shimla and JPUIT Waknaghat	*Approximate expenditure have been shown upto December, 2014.
8.	Production of quality planting material of <i>Aconitum heterophyllum</i> Wall. <i>ex</i> Royle, <i>Podophyllum hexendrum</i> Royle & <i>Angelica lauca</i> Edgew and extension of their cultivation technology to local Communities.	Dr Sandeep Sharma, Scientist-F	September, 2013 to August, 2016 (Three Years)	33.264	04.10	--	NMPB, Deptt. of AYUSH, Ministry of Health and Family Welfare, Government of India, Third Floor, AYUSH Bhawan, B-Block, GPO Complex, INA, N. Delhi	--	*Approximate expenditure have been shown upto December, 2014.

**Annexure-XI (Ongoing/EAP)**

9.	National Medicinal Plants Board (NMPB) Conservation Project.	Dr. Vaneet Jishtu, Scientist-C	Jan.,2013 to Dec., 2016 (Three years)	34.00	03.15	--	Himachal Pradesh State Forest Department (APCCF - Research) Sundernagar	Collaborative project with State Forest Department HP	*Approximate expenditure is shown upto Dec, 2014. The balance amount was deposited (APCCF - Research) Sundernagar, Himachal Pradesh State Forest Departt. However, the additional grant has not been released till date.
10.	High altitude transition zones in HP: long term studies to assess the effects of Global warming and trails to rehabilitate degraded sites in this zone.	Dr. Vaneet Jishtu, Scientist-C	Aug., 2012 to July, 2015 (Three years)	17.0 + 04.0 (for procurement of data loggers). = 21.00	02.19	--	Himachal Pradesh State Forest Department (APCCF - Research) Sundernagar	Collaborative project with State Forest Department HP	*Approximate expenditure have been shown upto December, 2014.
11.	Establishment of Small Nurseries for implementation of Centrally Sponsored Scheme (CSS) of NMPB New Delhi. Fund given by the SMPB.	Dr. Sandeep Sharma, Sci-F Dr KS Kapoor, GCR Sh. Jagdish Singh, Sci-E	April, 2014 to May, 2015 (One years)	12.00	03.19	--	Funds approved by State Medicinal Plant Board, govt. of Himachal Pradesh, Shimla	--	*Approximate expenditure have been shown upto December, 2014.
12.	Creating Awareness for Revival, Recharging, Sanitation and Hygiene of Natural Water Resources through Adoption of Scientific Intervention in Model Village Lanabanka, Distt. Sirmour (HP).	Dr. Rajesh Sharma, Scientist-F	July, 2014 to June, 2017 (Three years)	14.8824	00.62	--	DST, National Council of Science & Technology Commission (NCSTC), GoI, New Delhi	--	*Approximate expenditure have been shown upto December, 2014.

## 5. Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Realizing genetic gain from teak seed orchards: Enhancing seed production and outcrossing through cultural and ecological interventions.	Dr. A. Nicodemus, Scientist E	2009-2013 Extended upto 2015	5.64	5.20	-	International Foundation for Science, Sweden	CSIRO	
2.	Clonal evaluation of <i>Ailanthus excelsa</i> in Different Agroclimatic zones of Tamilnadu.	D. Rajasugunasekar	2013-2016 3 years	9.00	4.00	4.38	Tamilnadu Forest Department	TNFD	
3.	Development of an Inter-specific hybrid <i>Corymbia torelliana</i> x. <i>Ccitriodora</i> through Controlled Pollination: A Genetic Resource for Paper Pulping.	Dr. B. Nagarajan	4 years 2012-2016	20.85	15.10	6.76	ITC Research and Development, Bangalore. (National)	ITC-IFGTB	The project is in its one year period of final extension.
4.	Genetic Improvement of Eucalyptus through Mapping and Tagging of QTLs/Genes.	Dr. R. Yasodha; Dr. Modhumita Dasgupta and Dr. B. Nagarajan	5 years 28.06.2010 to 30-6-2015	225.61	130.43	NA	Dept. of Biotechnology, GoI (National)	A.P. Forest Development Corporation; TN Forest Plantation Corporation; Mysore Paper Mills and TNPL Ltd	An extension of the project up to 2017 has been requested.
5.	Germplasm assemblage of genetic resources of <i>Gmelina arborea</i> Roxb. In Karnataka.	Dr. V. K. W. Bachpai	3 years 2014-2017	16.05	-	-	Karnataka Forest Deptt Karnataka (National)	Karnataka Forest Department	-
6.	Germplasm assemblage of genetic resources of <i>Melia dubia</i> in India.	Dr. Rekha R Warriar	2 years 2012-2014	9.5	-	-	APFD (National)	APFD	-

**Annexure-XI (Ongoing/EAP)**

7.	Evaluation of performance of shola species of the Nilgiris under projected climate change conditions.	Dr. Rekha R Warriar	2 years 2013-2015	9.98	9.98	-	HADP (National)	Tamil Nadu Forest Department	-
8.	Value addition of Acacia resources of the Nilgiris for employment generation and livelihood support.	Dr. Rekha R Warriar	2 years 2013-2015	7.98	7.98	-	HADP (National)	Tamil Nadu Forest Department	-
9.	Establishment of a South Zonal Germplasm Bank of <i>Melia dubia</i> .	Dr. Rekha R Warriar	2 years 2013-2015	15.5	11.8	-	Karnataka Forest Deptt (National)	Karnataka Forest Department	-
10.	In vitro production of secondary metabolites from tree species of Dasmoola through hairy root cultures.	Dr. Rekha R Warriar	4 years 2013-2017	30.9	10.0	6.0	NMPB (National)	-	-
11.	Tissue culture multiplication and protocol development for bamboo species.	Dr. Rekha R Warriar	3 years 2014-2017	6.00	1.10 1	2.0	Tamil Nadu Forest Deptt (National)	Tamil Nadu Forest Department	-
12.	Effect of elevated CO <sub>2</sub> on active principle of commercially important medicinal plants.	Shri. S. Saravanan	3 years (2012- 2015)	18.95	14.00	3.95	National Medicinal Plants Board	Nil	
13.	Feasibility study on Facilitation of Tree Nursery for Enhancing the Livelihood of Tribal Community in Tamil Nadu.	Shri. S. Saravanan	2 years (2014- 2016)	4.88	1.37	1.42	Tamil Nadu State Planning Commission	Tamil Nadu Forest Department	
14.	Development of Integrated Dry Land Agroforestry systems in Tamil Nadu for enhancing livelihood opportunities.	Dr.C.Buveneswaran, Scientist-E	3 years April 2012 to March 2015	21.35	15.21	4.62	Tamil Nadu State Planning Commission (National)	Nil	
15.	Insect pest complexes on medicinal plants and the influence of pest damage on their active principles.	Dr. John Prasanth Jacob, Scientist-F	3 years March 2014 to March 17	20.10	2.85	6.258	NMPB, (Department of Ayush)	Nil	Ongoing. Completes one year by March 2015.

**Annexure-XI (Ongoing/EAP)**

16.	Reclamation of laterite lands using beneficial microbes in Kasargode District.	Dr. A. Karthikeyan Scientist E	3 years April, 2013 to March, 16	10.45	5.50	3.83	Kerala Forest Department, Govt. of Kerala (National)	Nil	Completes 2 years by March, 2015
17.	Training cum Demonstration on Biofertilizer Production and Application in Nursery and Field.	Dr. V. Mohan, Scientist-F	1 year December, 2014 to November, 2015	5.07 (Amount released so far 2.535)	Project just at end of Dec, 2014. Indents given for procurement of essential lab. items, recruitment of Project Assistant, etc.	-	Planning, Development and Special Initiatives Department, Hill Area Development Programme, Govt. of Tamil Nadu (National)	Nil	Fund was received on 18-12-2014 and project activities are just initiated.
18.	New biocontrol opportunities for prickly acacia : exploration in India	Dr. A. Balu, Scientist – F Division of Forest protection	7 years (May 2008 to June 2015)  (The project sanctioned initially for 4years has been extended by the funding agency till June 2015)	55.90	52.37	An additional budget of 700AU \$ to complete the pending experiment and conclude the project will be received on signing deed of extension provided by the funding agency.	Department of Agriculture, Fisheries and Forestry, Australia.  (Earlier known as Department of Primary Industries and Fisheries)	Dr. K. Dhileepan, Principal Entomologist, Biosecurity Queensland, Department of Agriculture, Fisheries and . Forestry, Eco-sciences Precinct, Queensland.	As advised by the MoEF the MoU of the project has been revised and submitted to DIG (RT) MoEF , Govt. of India through ICFRE for approval.
19.	Contributory factors in the establishment of <i>Leptocybe invasa</i> (Fisher and LaSalle) on Eucalyptus plantations in Tamilnadu	Dr. N. Senthilkumar, Scientist ‘D’	20 <sup>th</sup> March, 2012 & 19 <sup>th</sup> March, 2014	11.61	6.08	NA	Ministry of Environment and Forests (MoEF), GOI, New Delhi	NA	NA
20.	Prospecting bioactive compounds from certain flora: Biopesticides	Dr.S.Murugesan, Scientist-G	10 <sup>th</sup> November 2012 &	13.28	11.44	NA	Department of Science & Technology,	NA	Project completed during

**Annexure-XI (Ongoing/EAP)**

	against Papaya mealy bug, <i>Paracoccus marginatus</i> Williams and Granara de Willink in Tamilnadu.		10 <sup>th</sup> November 2014				Ministry of Science & Technology GOI, New Delhi		Nov' 14.
21.	Butterfly diversity in relation to landscape changes in the Walayar Valley, at Palakkad Gap in the Western Ghats	Dr. K.R. Sasidharan, Scientist-E	3 years 31.01.2012 to 30.01.2015	12.9925	7.106	-	Ministry of Environment, Forest & Climate Change, Govt. of India	Nil	Delay in obtaining the mandatory permission from the SFD and the problems with release of funds from MoEF & CC affected the progress of the project.
22.	Conservation and improvement if <i>Calophyllum inophyllum</i> - A potential TBO of Karnataka	Dr. R. Anandalakshmi	4 years (April 2014 to March 2018)	15.80	3.00	4.46	Karnataka Forest Department	Karnataka Forest Department	-

**6. Institute of Forest Productivity (IFP), Ranchi**

S.N.	Project Title	Principal Investigator	Duration (Start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till March' 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of funding Agency (National/ International)	Collaborators/ collaborating institutes	Remarks
1.	"Establishment of demonstration plots of Nisoth ( <i>Operculia turpenthum</i> ) and Sheonak ( <i>Oroxylum indicum</i> )"	Dr. A. K. Pandey, Scientist 'F', IFP, Ranchi	2 years 24.02.2014 (2013-14) to 2015-16	4.50	4.50	2.10	Dabur India Limited, 22, Sitahibabad, Ghaziabad - 201010	--	--
2.	"Bamboo Genetic Evaluation, Improvement and Propagation"	Dr. Sanjay Singh, Scientist 'E' & K.I.	4 years 01.04.2014 (2014-15) to 2017-18	40.08	21.396	32.882	National Bamboo Mission, Min. of Agri., GoI New Delhi	BTSG -ICFRE	Phase I – 1 yr.  Phase II – 3 yrs.
3.	"Improvement in seed yield of <i>Jatropha curcas</i> through	Dr. Animesh Sinha,	3 years 11.09.2014	31.95	12.99	9.36	DBT, Min. of Sci.&	--	--

**Annexure-XI (Ongoing/EAP)**

	breeding and silvicultural practices"	Scientist 'E' IFP, Ranchi	(2014-15) to 2016-17				Tech. GoI, New Delhi		
4.	"Improvement of the infrastructural facilities in the Botanical Garden as a Lead Garden in Jharkhand for ex-situ conservation of rare and endangered plant species"	Dr. Sanjay Singh, Scientist – 'E' & P.I. IFP, Ranchi	20.05.2011 (2011-12) to 31.03.2015 (2014-15)	44.00	39.00	5.00	Min. of Env. & Forests, GoI, New Delhi	--	2014-15 was extended period. Release of budget of Rs.5.0 lakh is still awaited.
5.	"Agroforestry Capacity Building Project of Bihar State"	Officer-in-Charge, Forest Research & Extension Centre (IFP), Patna.	5 years 2013-14 to 2017-18	1390.82	666.93	290.02	Environment and Forest Department, Govt. of Bihar	--	--

**7. Institute of Forest Biodiversity (IFB), Hyderabad**

S.N.	Project Title	Principal Investigator	Duration (Start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till March' 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of funding Agency (National/ International)	Collaborators/ collaborating institutes	Remarks
1.	Raising of Model Nursery under the project of A.P. Medicinal Board	Dr. G.R.S. Reddy, Sc-G	2014-15	20.00	20.00	Nil	APMAPB Hyderabad	-	-
2.	Vegetation Carbon Pool Assessment	Dr.G.R.S. Reddy, Sc-G	2014-17	14.60760	5.845	4.748	NRSC Hyderabad	-	-
3.	Establishment of Herbal Garden	Dr. G.R.S. Reddy, Sc-G	2014-19	5.20	2.00	0.80	NMPB, New Delhi	-	-
4.	Development of Agroforestry models based on RET and Medicinal species in Telangana and Andhra Pradesh.	Dr. G.R.S. Reddy, Sc-G	2015-18	30.87	-	12.00	NMPB, New Delhi	-	-

**8. Institute of Wood Science and Technology (IWST), Bangalore**

S.N	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international )	Collaborators / collaborating institutes	Remarks
1	Thermal modification of wood for value addition to plantation timbers	Dr.S.R. Shukla	June 2013- March 2015	9.02	7.36 till Dec2014 Expected - 9.00 till March 2015	-	Punjab Forest Department	Punjab Forest Department	Project is likely to be extended till June 2015
2.	Microwave assisted chemical modification of wood.	Dr. K.K. Pandey, Scientist - G	2013 - 2016	30.60	19.68	4.5	DST		
3.	New methods of chemical modification of wood for improving dimensional stability and durability.	Dr. K.K. Pandey, Scientist - G	2013 - 2016	12.40	4.75	3.78	CSIR		
4.	Assessment of wood quality variability in tree species prevalently grown in Punjab.	Dr. S.S. Chuahan, Scientist - E	2013 - 2015	17.00	13.65	Rs. 3.35	Department of Forests & Wildlife Preservation, Punjab		
5.	Development of Natural Fiber Filled Thermoplastic Composites from Natural Resources available in the State of Punjab.	Dr. Pankaj Aggarwal Scientist - F	2013 - 2015	50.0	Rs. 3.35 Rs. 35.00 (order is being placed)	Rs. 11.65	Department of Forests & Wildlife Preservation, Punjab		
6	Bio-thermoplastic composites: Evaluation of physical, mechanical, morphological and thermal properties.	Dr. Pankaj Aggarwal Scientist - F	2013 - 2016	36.69	Rs. 2.56 Rs. 18.5 (order is being placed)	Rs. 3.62	DST		
7	Study on production of briquettes from invasive forest weed and its utilization by JFM villages.	Ritesh Kumar, Scientist-D	2014 - 2016	6.0	3.0	3.0	Karnataka Forest Department		

**Annexure-XI (Ongoing/EAP)**

8	Standardization of extraction methods, evaluation and quantification of Halmaddi from <i>Ailanthus malabarica</i> D.C.	B.S. Chandrashekar	2013-2015	6.00	4.00	2.00	Karnataka Forest Department		
9	Occurrence and diversity of the entomopathogenic fungus <i>Metarhizium</i> in the soils of varied eco-climatic forest habitats of south India	Dr.R. Sundararaj,	July, 2013 to June, 2016	8.92	6.0	2.9	DBT	ATREE, Bangalore	
10	Assessment of decay of wood in the forests and impact on methane release contributing towards climate change	Dr. A. Muthu Kumar	2 years 1 <sup>st</sup> April, 2013 to 31 <sup>st</sup> September, 2015	6.00	4.50	1.50	Karnataka Forest Department	Nil	Nil
11	Premature dying of trees of <i>Acrocarpusfraxinifolius</i> (Belang i) in parts of Kodagu district	Dr. A. Muthu Kumar	2 years Sept, 2014 to Oct, 2016	5.00	1.00	2.00	Karnataka Forest Department	Nil	Nil
12	Studies on hard substratum fauna in five major ports on the east coast of India	Dr. M. Balaji	5 years (April 2012 & March 2017)	43.384	5.070 (for 2014-15)	8.921	National Institute of Oceanography, Dona Paula, Goa (National)	---	Cumulative expenditure till end of March 2015 is Rs. 16.9 lakhs
13	“Distribution, assessment and growth of <i>Santalum album</i> L., an important medicinal plant of Karnataka”	Dr. B. N. Divakara	2 years 1 <sup>st</sup> Nov, 2013 – 30 <sup>th</sup> Oct, 2015	10.38	6.70	4.33	National Medicinal Plants Board, Govt. of India	Nil	Progress is going as per the approved action plan
14	“Assessing the performance of <i>Pongamia pinnata</i> (L.) Pierre in Karnataka and Establishment of Multilocation trial: A Step Towards Varietal Release”	Dr. B. N. Divakara	3 years 1 <sup>st</sup> Oct, 2014 – 30 <sup>th</sup> Oct, 2017	6.969	2.438	2.7255	Karnataka Forest Department – Govt. of Karnataka	Nil	Progress is going as per the approved action plan
15	Conservation, improvement and bioresource development of sandalwood ( <i>Santalum album</i> L.)	Dr S. Viswanath	Nov 2013- Nov 2016	46.886	20.0	15.0	National medicinal Plant Board	nil	First installment of Rs 20.0 lacs received in Nov 2013

**Annexure-XI (Ongoing/EAP)**

16	Establishment of demonstration plots and modern nursery for producing Quality planting stock of <i>Santalum album</i> and bamboo Sub project I	Dr S. Viswanath	March 2013- 2016	17.82 (for sub project I)	5.5.	7.0	Punjab Forest department (PFD)	PFD	Amt of Rs 55 lacs given in bulk for Sub project I, II and III. 2 <sup>nd</sup> installment pending
17	Bamboo genetic evaluation, improvement and propagation (Phase I)	Dr S. Viswanath Nodal officer for IWST	March 2014-2017 (Phase I and phase II)	5.98 for Phase I only for IWST	4.7	0.14	National Bamboo Mission, Govt of India		PI of the All India coordinated project is Dr H.S. Ginwal, FRI
18	Enhancing seed productivity of Clonal Seed Orchards of <i>Tectonagrandis</i> , <i>Tamarindusindica</i> and <i>Syzigiumcumini</i> using cultural operations	Dr. Ashutosh Srivastava	18 <sup>th</sup> August 2014- 31 <sup>st</sup> August 2016	6.00	1.10	3.00	Karnataka Forest Department	-	The project was initiated in August 2014. The baseline data for the project was collected from the selected CSOs and experiments are designed followed by preparing a synopsis.
19	Development of DNA based identification system for three important timber species of Karnataka	Dr. Ashutosh Srivastava	18 <sup>th</sup> August 2014- 31 <sup>st</sup> August 2016	6.54	1.77	3.25	Karnataka Forest Department	-	The project was initiated in August 2014. Synopsis of the project was prepared. Standardization of DNA extraction was carried out. Basic data of the samples of <i>Tectona grandis</i> , <i>lagerstoemialanceolata</i> and <i>Derlbergia latifolia</i> was collected.
20	Development of commercially viable induction system for <i>Aquillariamalaccensis</i> and management of agarwood production in humid tropics of Karnataka.	Dr. Ashutosh Srivastava	September 2014- September 2017	21.17	4.84	9.00	National Medicinal Plant Board	Vanadurgi Agarwood India Pvt. Ltd.	Project was initiated in Oct. 2014. Experiment was designed and lab work started accordingly.

**Annexure-XI (Ongoing/EAP)**

21	Development of Quasi <i>in-situ</i> conservation and restocking of natural areas of <i>Embeliaribes</i> burm.f- an important endangered medicinal plant species.	Dr. Ashutosh Srivastava	November 2013- November 2016	21.307	8.00	9.00	National Medicinal Plant Board	-	Project started in Nov, 2013. Micropropagation of <i>Embelia ribes</i> was achieved through proliferation of axillary shoots and in-vitro rooted plants were transferred at Katgal Nursery for hardening purpose
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**9. Rain Forest Research Institute (RFRI), Jorhat**

S.N	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Development of descriptors and evaluation of artificial inoculation in <i>Aquilaria malaccensis</i> Lamk.	Dr. R.K. Borah, Scientist -E	3 years (2013-2016)	27.24 (Fund received 12.00)	9.59	9.00	National Medicinal Plant Board.	-	-
2.	<i>Morinda citrifolia</i> L. (Noni)-livelihood option for the people of North East India.	Dr. T.N. Manohara, Scientist -D	3 years (2013-2016)	28.98 (Fund received 12.00)	12.00	10.0	National Medicinal Plant Board	-	-
3.	Bamboo genetic evaluation, improvement and propagation	Md. Ibrahim Scientist -C	4 years (2014-2018)	40.080 (Fund received 3.68)	2.85	14.20	National Bamboo Mission	-	-
4.	Identification of extent of forest lands in forest fringe village (Component).	Shri Ajay Kumar, Scientist -B, Nodal Officer	3 years (2011-2014)	Initially approved 72lakhs & Received 28.9 lakhs	28.50	-	National Rainfed Area Authority of India (NRAA)	-	

**10. Tropical Forest Research Institute (TFRI), Jabalpur**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
<b>AGROFORESTRY</b>									
1.	Study on Indigenous Knowledge and documentation of extent of utilization of herbs in folk medicines prevalent in tribal pockets of Madhya Pradesh	Dr Rajiv Rai	2 years from September 2013 to August 2015	4.93	2.85	2.59	M P Council of Science and Technology, Bhopal	Nil	Annual Progress Report in MPCST format submitted in Dec 2014 to funding agency
2.	Development of Silvi-agri-medicinal and agri-medicinal systems in Vidharbh region of Maharashtra.	Dr. Nanita Berry Scientist 'D'	3 years from September 2012 to August 2015	9.91	5.81	4.10	Department of Maharashtra Forest Department CAMPA, Pune (M.S.)	DFO,(R&D) Chandrapur (M.S.)	-
3.	Empowering tribal Community through Lac cultivation in Madhya Pradesh	Dr. Nanita Berry Scientist 'D'	5 years from January 2013 to December 2017	32.75	4.76,941	5.00	Department of MP Forest Department, CAMPA, Bhopal (M.P.)	Nil	-
<b>BIODIVERSITY</b>									
4.	Population dynamics of threatened medicinal plants species growing in buffer zone of Tadoba Andheri Tiger Reserve	Sanjay Singh (Scientist-C)	3 years from Sept-2012 to Aug-2015	9.57	4.57 (as on Sept 2014)	1.17	Maharashtra State Forest Department	Maharashtra State Forest Department	-
5.	Assessment of Impact of the Harvesting Practices on the Regenerations of Bamboo Forest in Madhya Pradesh	Sanjay Singh (Scientist-C)	1 year from April 2014- April 2015	3.14	1.54	The project will end in April 2015	Madhya Pradesh State Bamboo Mission	Madhya Pradesh State Forest Department	-
<b>ECOLOGY</b>									

**Annexure-XI (Ongoing/EAP)**

6.	Carbon sequestration through afforestation at Rourkela Steel Plant, Odisha	Dr. Avinash Jain, Scientist F	5 years 3 months from Jan 2014 to March 2019	75.17	9.0	9.0	Steel Authority of India Limited (SAIL), Ranchi	Nil	--
7.	Utilization of AWS/AMS data for agriculture, forestry and hydrological application in M.P.	Dr. Avinash Jain, Scientist F	5 years from January 2010 to March 2015	21.38	18.0	--	Space Applications Centre (ISRO), Ahmadabad	Nil	--
8.	Establishing Arachnarium at TFRI, Jabalpur, MP.	Dr. S. Chakrabarti, Scientist F	3 years (1-1-2015-31-3-2017)	6.33	3.40	1.59	Madhya Pradesh Forest Department, Bhopal, MP	Nil	Project approved on 7.10.2014; 1 year fund released on 8.01.2015
ENTOMOLOGY									
9.	Distribution, field biology and Integrated Pest Management of major white grub species infesting teak seedlings in Madhya Pradesh	Dr. N. Kulkarni, Scientist-G	2 years from April 2015 to March 2017	6.32	N/A	3.16	National - M.P. Council of Science & Technology (MPCST), Bhopal.	Nil	Recently approved by MPCST, Bhopal vide letter No.5032/CST/R&D (Bio.Sci.)/2014, dated 23-12-14. But will be initiated in the next financial year i.e. 2015-16
PATHOLOGY									
10.	Formulation of biofertilizers consortium and their distribution to forest department	Miss. Swaran Lata, Scientist-B	2 years from August 2014 to July 2016	8.76	3.07	4.76	National – Madhya Pradesh State Forest Department Bhopal.	Nil	Project is initiated in August 2014.
GENETICS									
11.	Studies on development of <i>in vitro</i> regeneration system for <i>Albizia procera</i> (Roxb.) Benth	Dr. Naseer Mohd, Scientist “B”	3 years from Feb 2010 to Jan 2013. Extended	5.48	4.16	N/A	M P Council of Science and Technology, Bhopal	Nil	Initially project was for 3 years later funding

**Annexure-XI (Ongoing/EAP)**

			upto March 2014 Further extended upto March 2015						agency extended project due to delayed release of fund.
12.	Studies on variation in reserpine content in some high yielding genotypes of <i>in vitro</i> and seedling raised <i>Rauwolfia serpentine</i> Benth	Dr. Y. Mishra, Scientist-E	3 years ( Jan 2011 to Dec 2013 Extended upto Oct 2014 (may further be extended for more period)	4.48	4.06	NA	M P Council of Science and Technology, Bhopal	Nil	Initially project was for 3 years later funding agency extended project due to delay in release of fund.
13.	Germplasm Collection and Ex-Situ Conservation of <i>Pterocarpus marsupium</i> Roxb (CAMPA)	Dr.Y.Mishra, Scientist-E	5 year from April 2012 to March 2017	17.32	5.53	3.43	CAMPA (CG Forest Deptt.), Raipur	Nil	-
14.	Bamboo genetic evaluation, improvement and propagation	Dr.Y.Mishra, Scientist-E	4 years from April 2014 to March 2018	40.08	4.00	10.69	National Bamboo Mission, New Delhi	Nil	-
15.	Commercial production of quality planting material of bamboo species	Dr.Y.Mishra, Scientist-E	4 years from January 2015 to Dec 2018	21.00	0.40	10.00*	National Bamboo Mission, New Delhi	Nil	*Released as first installment
	NWFP								
16.	Quality standardization of some medicinal plants of Madhya Pradesh	Smt. Neelu Singh Scientist- E	2 years 6 months from Jan 2012 to June, 2015	8.10	7.50	0.60	Madhya Pradesh State Minor Forest Produce Federation, Bhopal, M.P.	Nil	-
17.	"Studies on harvesting time of some medicinal plants for their natural antioxidant constituents".	Smt. Neelu Singh Scientist- E	3 years from Sept. 2012 to Aug, 2015	9.96	8.50	1.46	CAMPA, Maharashtra State Forest Department	Nil	-
18.	Standardization of non-destructive harvesting	Smt. Neelu Singh	3 years from March 2014	27.00	4.82	8.336 (TFRI-	National Medicinal	Arid Forest Research	-

**Annexure-XI (Ongoing/EAP)**

	practices of <i>Commiphora wightii</i> (Guggal) gum oleogum resin in Madhya Pradesh.	Scientist- E	to February 2017			5.37 + AFRI-3.84)	Plants Board, (NMPB), New Delhi	Institute, Jodhpur	
	SILVICULTURE								
19.	Standardization of plantation techniques for major forest plant species in M.Pradesh	N.P.S. Nain	5 years from January 2013 to Dec 2017	22.22	10.25	1.75	Madhya Pradesh Forest Department, Bhopal	Nil	-

**Centre for Forestry Research and Human Resource Development (CFRHRD), Chhindwara**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	“Comparative field performance of seedling and clonal planting stock of <i>Buchanania lanzan</i> Spreng”	Shri. N.D. Khobragade, Scientist –C, CFRHRD, Chhindwara	2 years May 2013- April 2015	9.92	0.45	Nil	Madhya Pradesh State Biodiversity Board, Bhopal	Nil	

### Projects Submitted for External Funding

#### 1. Indian Council of Forestry Research and Education, Education

##### 1a. Biodiversity and Climate Change Division, Directorate of Research, ICFRE

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/international)	Collaborators/ collaborating institutes	Remarks
1.	REDD Plus Himalayas – Developing and using experience in implementing REDD Plus in the Himalayas		4 Years (2015 to 2018)	199.38 (Euro 300000)		International Centre for Integrated Mountain Development		
2	Ecosystem improvement project		-	23.00		World Bank		

##### 1b. Environment Management Division, Directorate of Extension, ICFRE

S. No.	Project / Consultancy title	Principal investigator (Team leader/ Project coordinator)	Duration (Start & end date)	Total budget outlay (Rs. In Lakhs)	Budget for 2015-16 (Rs. In Lakhs)	Full name of funding agency (National/International)	Collaborators/ collaborating institutes	Remarks
1.	Environmental audit of Coal Mines operated by Coal India Limited (CIL) and Subsidiary Coal Companies	<b>DG</b> -Team leader, <b>DDG (Extn.)</b> - Deputy team leader <b>ADG (EM)</b> - Project coordinator	Still to start	259.35 (Proposed)	100.00 (Proposed)	Coal India Limited (CIL), Kolkata	Still to be identified	-

## 2. Arid Forest Research Institute (AFRI), Jodhpur

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Restoration of lime stone mine overburden in Lakheri area of Bundi forest division.	Sh. S. R. Baloch, Scientist B	5 year	37.46	9.37	State Forest Department, Rajasthan	-	
2.	Selection of superior genotypes of <i>Jatropha</i> ( <i>Jatropha curcas</i> Linn.) for yield attributes	Dr. D.K. Mishra, Silviculture	1.4.15 - 31.3.18	25.36	Under Process	Department of Biotechnology, Govt. of India, New Delhi	None	Requested to provide Institutional charges as per DBT Norms along with re-appropriation of budget as per requirement of the project
3.	Effects of elevated CO <sub>2</sub> and temperature on seed quality of important forestry species.	Dr. D.K. Mishra, Silviculture	01.04.15- 31.3.19	25.62	Under Process	Min. of Environment, climate change and forests, Govt. India, New Delhi	None	Under consideration
4.	Selection of candidate plus plants, development of seed handling & nursery technology of <i>Capparis decidua</i> (Forsk.) Edgew.	Dr. D.K. Mishra, Silviculture	01.04.15- 31.3.18	16.96	Under Process	SFD, Rajasthan	None	Under consideration
5.	Value addition to plants of agricultural and horticultural importance by application of consortium of root fungal endophyte and nitrogen fixing prokaryote – <i>Azotobacter</i> spp.	Dr. Sangeeta Singh	2015-2017	10.00	5.00	Department of Science and Technology, New Delhi (National)	Amity Institute of Microbial Technology (AMIT), Amity University of Uttar Pradesh (AUUP), Noida	
6.	Studies on biodeterioration of chemical constituents of some crude medicinal plant produce by insect-pests and mycoflora under storage and their ecofriendly management PI: Shiwani Bhatnagar Duration: 3years	Dr. Shiwani Bhatnagar	2015-2017	22.997	10.26	National Medicinal Plant Board	Nil	

## 3. Forest Research Institute (FRI), Dehradun

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Structural analysis and biochemical studies of polyphenolic compounds from Indian trees and bamboo	Dr. V.K. Varshney, Chemistry Division	2	11.94600		DST		
2.	Early assessment an screening of clones of <i>Populus deltoides</i> on the basis of wood anatomical properties and specific gravity	Dr. P K Pande	3	24.3		CSIR		
3	Studies of fibre morphology of Indian Hardwoods and development of database of their efficient utilization by industries	Dr. Sangeeta Gupta	3	18.0		DST		
4	Technical advised for the ecological restoration work being undertaken by BCCL on OB dumps/mine areas in 44 hectare area	Dr. H B Vashishtha	5	76.97558		BCCL Dhanbad		
5	Bio prospecting of essential oil	Dr. Vineet Kumar	3	27.3125		DST		
6	Effect of altitude and seasons on soil respiration, bacterial communities and enzyme activities in Uttarakhand	Dr. Parul Bhatt	3	13.21775		DST		
7	Assessment of soil respiration (CO <sub>2</sub> efflux) variability in different land uses and seasons in Doon Valley of Uttarakhand	Dr. B.M. Dimri	3	15.348		CSIR		
8	Detection identification and biology of Phytophthora-An emerging forest pathogen in the Himalayan natural and conserved forest ecosystems	Dr. Ashwani Tapwal	3	58.0866		MoEF&CC		

**Annexure-XI (Submitted/EAP)**

9	Efficacy of active phytoconstituents from weeds viz. <i>Coccinia indica</i> and <i>Achyranthes aspera</i> for hypoglycaemic activity	Dr. Rashmi	5	135.00		Department of Health Research, New Delhi		
10	Chemo-pharmacological evaluation of selected medicinal plants for novel antimicrobial agents (ID-2014-0296)	Dr. Y.C. Tripathi	5	195.00		Department of Health Research, New Delhi		
11	Evaluation of antibacterial activity of medicinal fungi <i>Ganoderma</i> spp., <i>Phellinus</i> spp., <i>Lintinula edodes</i> and <i>Ophiocordyceps sinensis</i> against <i>Mycobacterium tuberculosis</i> , the tuberculosis pathogen (ID-2014-0008)	Dr. N.S.K.Harsh	5	50.00		Department of Health Research, New Delhi		
12	Selection, evaluation and propagation of superior bamboo clumps for Jharkhand	Dr. H.S.Ginwal	3	49.50		Jharkhand Forest Dept.		
13	Human Resources Development in the field of planting stock improvement for Jharkhand Forest Dept.	Dr. Santan Barthwal	4 days (including field visit)	4.0		Jharkhand Forest Dept.		
14	Demand and supply status of wood in Jharkhand	Dr. H.P. Singh	2	30.00		Jharkhand Forest Dept.		
15	Planting stock improvement of <i>Gemlina arborea</i> in Jharkhand	Dr. Tara Chand	3	35.0		Jharkhand Forest Dept.		
16	Afforestation of <i>Grewia optiva</i> J.R Drumm. Ex Burret in Uttarakhand for Fodder Promotion	Dr. S. Nautiyal	2	19.61520		National Seed Corp.		
17	Designing an Development of Hydroponic System for Rapid Multiplication of Elite Bamboos	Dr. Santan Barthwal	3	69.948		NBM		
18	Evaluation of Health Status of Trees in Chandigarh and Development of Management Strategy	Dr. N.S..K Harsh	3	17.14640		Department of Forests & Wild Life Chandigarh Administration		

**4. Himalayan Forest Research Institute (HFRI), Shimla**

S. N.	Project Title	Principal Investigator	Duration (Start & End Date)	Total Budget Outlay (Rs. in lakhs)	Tentative Expenditure till March, 2015 (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full Name of Funding Agency (National / International)	Collaborators/ Collaborating Institutes	Remarks, if any
1.	Technological Interventions and Networking for Basic Community Needs in Mountains of Himachal Himalayas.	Dr. K.S Kapoor, Scientist-G and Group Coordinator Research	--	HFRI component 07.50	--	--	Science for Equity, Empowerment and Development (SEED) Div of the DST, Ministry of Science and Technology, GoI, New Delhi under the TIME-LEARN Programme	Himalayan Research Group (HRG), Shimla	The project is under active consideration of DST, New Delhi.
2.	Ethno-botanical Study on Indigenous Medicinal and Aromatic Plants Used by Local People of Chopal Forest Division, Shimla Forest Circle, Himachal Pradesh.	Sh. Jagdish Singh, Scientist-E	3 years	08.11	--	--	Addl. Pr. CCF (CAT Plan) under HP State Compensatory Afforestation Fund Management & Planting Authority (HP CAMPA), Aranya-Bhawan, Talland, Shimla	--	The matter of its funding is being perused with Addl. Pr. Chief Conservator of Forests (CAT Plan)
3.	Medicinal and Aromatic Plants Used by Local People of Bharmour Forest Division, Chamba, HP.	Sh. Jagdish Singh, Scientist-E	3 years	09.28	--	--		--	
4.	Ecological Studies in Forest Types of Different Agro-Climatic Zones of Himachal Pradesh – Baseline for climate Change.	PI: Dr. RK Verma, Scientist-F	5 years	37.97	--	--	Himachal Pradesh State Forest Department	--	Office of the PCCF, SFD Himachal Pradesh is being reminded for its funding

**Annexure-XI (Submitted/EAP)**

5.	Standardization of Nursery Techniques for Raising Quality Planting stock of Juniperus polycarpos C. Koch & Abies spectabilis (D.Don) Spach	PI: Sh. PS Negi, Scientist-B  Dr. Sandeep Sharma, Scientist-F	5 years	24.92	--	--	Himachal Pradesh State Forest Department	--	-do-
6.	Studies on changing Forest Insect-pests Status in Stress Forest Eco-system and their Mitigation in Himachal Pradesh	PI: Dr. Ranjeet Singh, Scientist-F	5 years	37.314	--	--	Himachal Pradesh State Forest Department	--	-do-
7.	To Develop Butterfly Park at Western Himalayn Temerate Arboretum (WHTA) at Potters Hill (Shimla) in Himachal Pradesh	PI: Dr. Pawan Kumar, Scientist-D	3 years	47.03	--	--	APCCF (WL) Himachal Pradesh State Forest Department	--	The matter is under consideration in the office of PCCF (WL)

## 5. Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Development of descriptors and DUS testing guidelines for <i>Ailanthus excelsa</i> Roxb. and establishment of Gene Bank	D. Rajasugunasekar	3 Years	20.25	7.02	PPVFRA		
2.	Seed Source and Planting Site Matching for Canal, Bund and Homestead Grown Teak in Tamilnadu	Dr. B. Nagarajan	Two years 2015-2017	6.72	3.36	Tamil Nadu Forest Deptt, Government of Tamil Nadu (National)	Tamil Nadu Forest Department	G.O issued by the TN Govt. in its official website. Orders yet to be received.
3.	Evaluation of Genes from Marine Halophiles: enhancing salt tolerance in perennials	Dr. Mathish Nambiar-Veetil	Three years	495.95 (173.88 IFGTB)	71.10 (IFGTB)	National Agricultural Science Fund (NASF) (National)	CMFRI, Kochi, IIHR, Bangalaoe, CIBA, Chennai	Project proposal presented at ICAR
4.	Mapping of expression QTLs and identification of markers for water stress tolerance in inter-specific hybrids of eucalypts	Dr. Modhumita Dasgupta	Five years 2015-2020	190.808 (for IFGTB)	58.916	Dept. of Biotechnology, GoI (National)	CSIR, Indian Institute of Chemical Biology and Tamil Nadu Newsprint and Papers Ltd.	The project will be considered for funding in the DBT taskforce to be held on 21-22 January 2015.
5.	Documentation of population demography and genetic structure of teak for developing sustainable conservation strategies and resource management	Dr. R. Yasodha	Three years 2015-2018	37.867 (for IFGTB)	24.208	Dept. of Biotechnology, GoI (National)	KFRI; University of Agricultural Sciences; Forest Departments of Tamilnadu, Kerala and Karnataka	The project will be considered for funding in the DBT taskforce to be held on 21-22 January 2015.
6.	DNA Barcoding of economically important forestry species	Dr. A. Shanthi	Three years. 2015-2018	30.00	14.50	DST. Govt of India. (National)	Nil	Under review
7.	Development of charcoal making in bamboo grower's field in select districts of Tamil	M. Maria Dominic Savio, Scientist - D	April 2015 - March 2016 (1	10 .00	10.00	National Bamboo Mission through Tamil Nadu	Tamil Nadu Horticulture Department &	

**Annexure-XI (Submitted/EAP)**

	Nadu.		year)			Horticulture Development Agency (TANHODA), Chennai.	Institute of Forest Genetics & Tree Breeding, Coimbatore.	
8.	Demonstration of agarbathi making using bamboo in Nilgiri district of Tamil Nadu	M. Maria Dominic Savio, Scientist - D	April 2015 - March 2016 (1 year)	10.00	10.00	National Bamboo Mission through Tamil Nadu Horticulture Development Agency (TANHODA), Chennai.	Tamil Nadu Horticulture Department, & Institute of Forest Genetics & Tree Breeding, Coimbatore.	
9.	Preparation of Karnataka State Forest Genetic Resource register with Geographical Information System – Information Documentation System (GIS-IDS).	M. Maria Dominic Savio, Scientist - D	April 2015 – March 2018	27.32	10.85	Karnataka Forest Department, Bengaluru.	Karnataka Forest Department & Institute of Forest Genetics & Tree Breeding, Coimbatore.	
10.	Development of seed pelleting techniques for important tree species of Karnataka	Dr. R. Anandalakshmi	3 years (April 2015 to March 2018)	15.03	5.56	Karnataka Forest Department	Karnataka Forest Department	Approval awaited
11.	Improvement and popularization of <i>Swietenia mahogany</i> for rural livelihood promotion in Tree–Outside-Forests (TOFs) – A potential timber yielding tree species of Meliaceae	Dr. M. V. Durai	3 years (Tentative dates: 2015 - 2018)	17.97	6.0	Tamil Nadu Forest Department	-	Sanction accorded. However, fund yet to be received.
12.	Introduction and evaluation of medicinal plants based agroforestry systems for conservation, sustainable production and economic upliftment of farming communities in Tamil Nadu	Shri. S. Saravanan	3 years	24.46	--	National Medicinal Plants Board	Nil	--
13.	Integrated Water Conservation Measures And Agroforestry Interventions Towards Fodder Security And Livelihood Opportunities In Western Zone Of Tamil Nadu	Dr.C. Buvaneswaran, Scientist-E	3 years April 2015 to March 2018	28.75	15.16	Tamil Nadu State Planning Commission (National)	Nil	Nil

**6. Institute of Forest Productivity (IFP), Ranchi**

S.N	Project Title	Principal Investigator	Duration (Start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of funding Agency (National/ International)	Collaborators/ collaborating institutes	Remarks
1.	Assessment of genetic structure, linkage disequilibrium and marker-wood trait association in CPTs of teak ( <i>Tectona grandis L.f.</i> ) maintained at National teak germplasm bank, Chandrapur (M.S.) using molecular markers"	Dr. S. A. Ansari, Scientist 'G' & Director, IFP, Ranchi	2015-16 to 2017-18	44.96	20.51	Department of Science & Technology, GoI, New Delhi (National)	TFRI, Jabalpur	Release of 1 <sup>st</sup> installment for FY 2014-15 was requested through electronic transfer, but receipt of the same is still awaited.
2.	"Identification of superior germplasm of <i>Andrographis paniculata</i> and <i>Bacopa monnieri</i> and its cultivation at farmers/ tribals field for livelihood generation"	Dr. A. K. Pandey, Scientist 'F', IFP, Ranchi	2015-16 to 2017-18	36.63	15.00	NMPB, Dept. of AYUSH, MoHFW, GoI, New Delhi.	--	Release of 1 <sup>st</sup> installment for FY 2014-15 was requested through electronic transfer, but receipt of the same is still awaited.
3.	"Spatial Decision Support System on NTFP Management of Jharkhand"	Dr. Sharad Tiwari, Scientist 'E', IFP, Ranchi	3 years	47.388	10.1816	State Forest Department, Govt. of Jharkhand.	--	Proposal submitted on 01.09.2014.
4.	"Survey of Important NTFP and Estimation of their Productivity and Production in Jharkhand"	Dr. Sanjay Singh, Scientist – 'E' IFP, Ranchi	3 years	35.95	11.62	State Forest Department, Govt. of Jharkhand.	--	Proposal submitted on 11.08.2014.
5.	"Biochemical marker-assisted selection of commercially important <i>Asparagus racemosus</i> and <i>Tinospora cordifolia</i> for quality control and industrial utilization"	Sh. Pankaj Singh, Research Officer, IFP, Ranchi	3 years	22.96	11.44	NMPB, Dept. of AYUSH, MoHFW, GoI, New Delhi.	--	Proposal submitted on 03.09.2013.

**7. Institute of Forest Biodiversity (IFB), Hyderabad**

S.N	Project Title	Principal Investigator	Duration (Start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of funding Agency (National/ International)	Collaborators/ collaborating institutes	Remarks
1.	Genetics resources assessment and ex-situ conservation of three endemic tree species of Eastern Ghats	Dr. S.Pattnaik, Sci-E	2015-19	49.579	18.828	DBT	-	
2.	Semiochemicals in the management of Sal heart-wood borer, <i>Hoplocerambyx spinicornis</i> (Coleoptera: Cerambycidae)	Dr. Deepa M, Sci-C	2015-18	48.628	11.646	DBT	IICT, Hyderabad	

**8. Institute of Wood Science and Technology (IWST), Bangalore**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1	Modelling Seed Yield Estimation in <i>Pongamia pinnata</i> (L.) Pierre Plantations in Karnataka	Dr. B. N. Divakara	2 years April, 2015 – March, 2017	5.64	2.92	Karnataka State Biofuel Development Board - Govt. of Karnataka	Nil	Expected to get sanctioned by March 2015
2	Biometric Analysis and Modelling of Tree Pattern and Diversity at the Rural-Urban Transition in Bangalore	Dr. B. N. Divakara	3 years April 2015 – March, 2018	18.29	7.26	Department of Biotechnology, Govt. of India	Nil	Expected to get sanctioned by March 2015
3	Assessment and Improvement of Plant Diversity for the Sustainable Development and Conservation of Major Elephant Migration Corridor in South Karnataka, India.	H. C. Sindhu Veerendra Scientist-C,	3 years April 2015- March 2018	US \$ 3,18,238/-	US \$ 85, 122	ITTO International Tropical Timber Organization	nil	nil
4	Investigations on improvement of natural dye quality and cellulose yielding capability in <i>Morinda tinctoria</i> Roxberg..	H. C. Sindhu Veerendra Scientist-C,	3 years April 2015- March 2018	31.65	12.20	Ministry of Environment & Forests, Govt of India		

**9. Rain Forest Research Institute, Jorhat**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Commercial production of quality planting material of bamboo species	Shri Satyam Bordoloi, Scientist-B	3 years 1 <sup>st</sup> Feb. 2015	21.0 (Fund received Rs. 10.0 on 3-12-2014 )	10.00	NBM	RFRI, FRI & TFRI	-
2.	Screening and Identification of Aquatic Plants for Arsenic Phytoremediation in Assam, India	Dr. Krishna Giri, Scientist-B	-	18.63	-	MoEF&CC	-	Pending
3.	Assessment of Carbon Sequestration and Forest Carbon Stock in selected Forest Divisions of Assam	Dr. N. S. Bisht Director, RFRI, Jorhat	-	10.83	-	State Forest Department, Govt. of Assam	-	Pending
4.	Mapping and estimation of above ground biomass and soil organic Carbon in Nagaland, India	Dr. N. S. Bisht Director, RFRI, Jorhat	-	54.24	-	DST	-	Pending
5.	Study on Diversity and Dynamics of the Soil Seed Bank in Nambor Reserve Forest, A Tropical Semi-Evergreen Forest of Assam.	Dinesh kumar Meena Scientist-B	2 years	11.11 (Fund received Rs. 5.50 on 28.10.2014)	6.00	DST	-	-
6.	Biorestitution of Wetlands of Majuli-the World's Biggest River Island	Dr. R.K. Borah, Scientist-E	-	80.24	-	NFBSFARA (ICAR)	-	Pending
7.	Afforestation of wasteland areas in Dibrugarh district of Assam through community participation	Dr. R.K. Borah, Scientist-E	-	198.53	-	Oil India Ltd.	-	Pending

**10. Tropical Forest Research Institute, Jabalpur**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget Outlay (Rs. in lakhs)	Budget for 2015-16 (Rs. in lakhs)	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
	<b>BIODIVERSITY</b>							
1.	Preparation of a user-friendly data-base of phytodiversity in Satpura Plateau Agroclimatic zone of Madhya Pradesh	Sanjay Singh (Scientist-C)	Funds not received	7.82	4.59	Madhya Pradesh State Forest Department	-	-
	<b>ECOLOGY</b>							
2.	Screening and assessment of spider diversity in five districts of Madhya Pradesh	Dr. S. Chakrabarti Scientist F	1 year	10.051	10.051	UNDP-GEF project for MP	MP Forest Department	Revised project proposal submitted on 27.10.2014
3.	Livelihood enhancement of forest-dependent communities through eco-restoration of degraded forests	Shri M. Rajkumar	3 years	18.12	09.68	DST, Govt. of India	MP Forest Department	Presentation in expert committee meeting at INSA, New Delhi is scheduled on 5th Feb. 2015.
	<b>ENTOMOLOGY</b>							
4.	Lead Institution for Achanakmar- Amarkantak Biosphere Reserve, Chhattisgarh, Phase-III	Dr. N. Roychoudhury Scientist-G Forest Entomology Division	3 years	24.49920	-	Ministry of Environment Forests and Climate Change, New Delhi.	-	Discussed with Director, MoEF&CC, New Delhi, through telephone on 30.9.2014. The project needs to be formulated and resubmitted as per the guidelines for support to Environmental Research, 2012, MoEF&CC.
	<b>PATHOLOGY</b>							
5.	Documentation, conservation and diversity of forest fungi of Madhya Pradesh.	Dr. R.K. Verma Scientist-F	3 years	18.02	5.98	MOEF & CC, New Delhi	-	Acknowledged vide No.14/123/2014-ERS/RE, dated 15/04/2014.

**Annexure-X (Submitted/EAP)**

	NWFP							
6.	Standardization and domestication of alternative energy sources-charcoal briquetting Technology from cellulosic forest wastes in Madhya Pradesh.	Smt. Neelu Singh, Scientist-E	April, 2015 - 2017	10.36	5.18	Madhya Pradesh Clean Development Mechanism Agency (MP CDMA), MP	---	-
7.	Domestication of recycling of waste paper.	Smt. Neelu Singh, Scientist-E	April, 2015 - 2017	10.86	7.93	Madhya Pradesh Clean Development Mechanism Agency (MP CDMA), MP	---	
	<b>SILVICULTURE</b>							
8.	Impact of forest covers change on regulating stream flows of the Narmada River Basin using Macroscale Hydrological Model	Dheeraj K. Gupta, Scientist-B	3 years	5.6	2	MP State Forest Dept.	-	-

### Completed Externally Aided Projects (EAPs) as on March, 2015

#### 11. Indian Council of Forestry Research and Education, Dehradun

##### 1a. Biodiversity and Climate Change Division, Directorate of Research, ICFRE

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Total Expenditure (Rs. in lakhs)	Balance if any	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	India's First Biennial Update Report Forestry Sector: Mitigation and Gaps & Constraints	Dr. T.P. Singh ADG (BCC)	1 Years April 2014- March 2015	14.00	14.00	-	Nil	NATCOM Project Management Cell of MOEFCC at InsPIRE Network for Environment, New Delhi		

##### 1b. Biodiversity and Climate Change Division, Directorate of Research, ICFRE

S. No.	Project / Consultancy title	Principal investigator (Team leader/Project coordinator)	Duration (Start & end date)	Total budget sanctioned (Rs. In Lakhs)	Tentative expenditure till march 2015 (Rs. In lakhs)	Total expenditure (Rs. In lakhs)	Balance if any (Rs. In lakhs)	Full name of funding agency (National/ International)	Collaborators/ collaborating institutes	Remarks
1.	EIA & EMP for Tosh Parvati (NAKTHAN) (400 MW) HEP Project, Himachal Pradesh.	DG -Team leader, DDG (Extn.)- Deputy team leader ADG (EM)- Project coordinator	1.05.2010	46.00	10.00	23.00	21.00	Himachal Pradesh Power Corporation Limited	ICFRE (HFRI, Shimla) and M/s Mantec Consultants Pvt. Ltd., Noida	*Draft Report Submitted, EC awaited
2.	EIA & EMP for Surgani Sundla (42 MW) HEP Project, Himachal Pradesh.	DG -Team leader, DDG (Extn.)- Deputy team leader ADG (EM)- Project coordinator	4.12.2010	19.36	8.00	10.00	0.42	Himachal Pradesh Power Corporation Limited	ICFRE (HFRI, Shimla) and M/s Mantec Consultants Pvt. Ltd., Noida	*Draft Report Submitted, EC awaited
3.	Comprehensive EIA & EMP of Bunakha Hydroelectric Project in Bhutan.	DG -Team leader, DDG (Extn.)- Deputy team leader ADG (EM)- Project coordinator	2010-14	75.80	20.00	70.00	15.71	Tehri Hydro Development Corporation India Ltd.	ICFRE (FRI, IFGTB, IWST, IFB) and M/s Mantec Consultants Pvt. Ltd., Noida	*Draft Report Submitted, EC awaited
4.	Reclamation and Rehabilitation Plan for 166 mine affected areas of Bellary, Chitradurga and Tumkur Districts, Karnataka and preparation of Comprehensive SMP of these three districts of Karnataka.	DG -Team leader, DDG (Extn.)- Deputy team leader ADG (EM)- Project coordinator	27.12.2011	1400.00	50.00	74.00	0.51	Karnataka State Official Authority	ICFRE (IWST, Bangalore, IFGTB, Coimbatore and IFB, Hyderabad), FIMI, New Delhi and other subject matter domain experts	100 R & R Plans submitted to CEC

**2. Arid Forest Research Institute (AFRI), Jodhpur**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Total Expenditure (Rs. in lakhs)	Balance if any	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Documentation of Important Research Findings and Technologies for Applications to Forestry in Rajasthan.	Dr. G. Singh, Scientist F	2013 - 15	11.66	11.66	11.66	Nil	State Forest Department, Rajasthan	-	
1.	Studies on the effects of MPOWER programme on mitigation and adaptation towards Climate Change in western Rajasthan.	Dr. G. Singh, Scientist F	2013 - 15	8.88	11.66	8.88	Nil	MPOWER	-	
2.	Studies on seed insect pest of indigenous and exotic forest tree species and to develop IPM package for major insect damages in Gujarat (AFRI-107/FPD/SFD-GUJ/ 2011-15)	Dr. Meeta Sharma, Research Officer,	4 years (1st April 2011 to 31st March 2015)	14.272	14.272	Rs.13.5572 (upto 31 <sup>st</sup> Dec.2014)	NIL	State Forest Department, Gujarat	Nil	Project is running as per schedule and is completing on 31st March, 2015.

**3. Forest Research Institute (FRI), Dehradun**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Total Expenditure (Rs. in lakhs)	Balance if any	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Creation of field germplasm bank of <i>Grewia optiva</i> and <i>Quecus leucotrichophora</i> the important indigenous fodder tree species of Uttarakhand	Dr. S. Nautiyal, Head, Botany Division	3	15.75971	15.75971	15.75971		Deptt of Science & Technology		June 2014
2.	Detailed ecological restoration study including assessment of site conditions of the mine and analysis of results of plantations works carried out during previous year in Jhingurda Mine of NCL	Dr. H.B Vashistha Scientist-E Ecology Division	6 months	6.0	3.77969	3.77969	-	Northern Coalfield Limited		July 2014

**4. Himalayan Forest Research Institute (HFRI), Shimla**

S. N.	Project Title	Principal Investigator	Duration (Start & End Date)	Total Budget Sanctioned (Rs. in lakhs)	Tentative expenditure till March, 2015 (Rs. in lakhs)	Total Expenditure (Rs. in lakhs)	Balance, If any	Full Name of Funding Agency (National / International)	Collaborators / collaborating Institutes	Remarks, if any
1.	Identification of distinct traits for DUS for conifers.	PI: Dr. Rajesh Sharma, Scientist-F	June, 2010 to May 12 (2 Years) Extensions granted by the agency upto March, 2013 vide proceedings of meeting held at New Delhi on 11 Dec, 2013 with additional budget of Rs. 2.0 lacs. Project was further extended by the funding agency upto Sept, 2014.	11.31	--	07.60	--	PPV & FRA, New Delhi	--	Guidelines are being prepared for their further discussion during the meeting at New Delhi.

**5. Institute of Forest Genetics & Tree Breeding, Coimbatore**

S. N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Total expenditure (Rs. in lakhs)	Balance if any	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Production and Testing of Control Pollinated Eucalypt Hybrids with Improved Biomass and Pulp Yield to Support Industrial Forestry in Tamilnadu	Dr. B. Nagarajan	05.12.10 31.11.14	14.23	12.00	12.20	Rs.2.00 lakhs will be released after PCR submission	Tamil Nadu Papers and Newsprints Ltd., Government of Tamil Nadu (National)	IFGTB-TNPL	The project completed its four years of project period. PCR under preparation.

**Annexure-XI (Completed/EAP)**

2.	Production of recombinant antifungal/antipest lectin from <i>Withania somnifera</i>	Dr. Modhumita Dasgupta	2010-2014	29.83	NA	27.466	NA	Dept. of Biotechnology, GoI (National)	NA	NA
3.	Training cum Demonstration on Biofertilizer Production and Application in Nursery and Field	Dr. V. Mohan, Scientist-F	One Year. July, 2013 to June, 2014 (Extended up to Nov, 2014 by the funding agency)	4.50	4.50	4.50	Nil	Planning, Development and Special Initiatives Department, Hill Area Development Programme, Govt. of Tamil Nadu (National)	Nil	PCR submitted to the funding agency
4.	Augmentation of medicinal plants resources for primary health care practices by the tribal communities in the Nilgiris and enabling their livelihood enhancement	Dr.K. Panneer Selvam	25.03.2013 to 31.03.2015	10.87	4.81	4.23	Nil	National HADP - Hill Area Development Programme	Nil	The second year fund was not released by the funding agency
5.	Rapid improvement of casuarina and leucaena to enhance pulpwood production from farm forestry plantations.	Dr Kannan C.S. Warriar	Nov. 2012 to March 2015	15.18	15.18	15.18	Nil	Indian Paper Manufacturers Association	International Paper-APPM, JK Paper, West Coast Paper Mills, BILT Tree Tech, Tamil Nadu News Print and Papers Limited	

**6. Institute of Forest Productivity (IFP), Ranchi**

S.N	Project Title	Principal Investigator	Duration (Start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till March' 2015 (Rs. in lakhs)	Total expenditure (Rs. in lakhs)	Budget if any	Full name of funding Agency (National/ International)	Collaborators/ collaborating institutes	Remarks
1.	"Silvicultural studies of Phasi ( <i>Anogeissus acuminata</i> (Roxb. ex DC.) Guill. & Perr.) in Orissa".	Dr. Sanjay Singh, Scientist – 'E' IFP, Ranchi	14.11.2011 to 05.01.2015	22.00	22.00	22.00	--	Orissa Forestry Sector Development Project, SFTRI Campus, Ghatikia Bhubaneswar	--	Final installment of Rs.4.40 lakhs has been received after submission of final report as per MoA.
2.	"Identification of extent of forest lands in forest fringe villages"	At present Dr. A. K. Pandey, Sci 'F', IFP, Ranchi after repatriation of Sh. B.K.Mishra, Ex-DCF, OIC, FREC, Patna	2011-12 to 31.12.2014	50.40	50.40	24.18	--	National Rainfed Area Authority (NRAA), Govt. of India	Forest Informatics Division, FRI, Dehradun	Project was ended in Dec 2014. In absence of any clear guidelines from NRAA, creating liability beyond project period is not advisable.

**7. Institute of Forest Biodiversity (IFB), Hyderabad**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Total Expenditure (Rs. in lakhs)	Balance if any	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks
1.	Raising of Model Nursery under the Project of A.P. Medicinal Board	Dr. G.R.S. Reddy, Sc-G	2014-15	20.00	20.00	20.00	Nil	APMAPB Hyderabad	-	-

## 8. Institute of Wood Science And Technology (IWST), Bangalore

S. N	Project Title	Principal Investigator	Duration (start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Total Expenditure (Rs. in lakhs)	Balance if any	Full name of Funding Agency (national/ international)	Collaborators / ollaborating institutes	Remarks
1.	Studies on the Species Diversity of whiteflies (Aleyrodidae: Homoptera) and their natural enemies in Mangrove habitats of India	Dr.R.Sundara raj,	Dec. 2011 to Nov. 2014	10.66	8.91	8.91	-	MoEF	-	MoEF released only Rs 8.91697 as against the original sanction of Rs. 10.66
2.	Bionomics and management of <i>Purpuricenus sanguinolentus</i> Oliver (Cerambycidae: Coleoptera) the stem borer of Sandal ( <i>Santalum album</i> L.) in Karnataka	Dr.R.Sundara raj,	April 2012 to March 2015	25.77	22.0	22.0	-	DST	-	DST released only 22.29 as against the original sanction of Rs. 25.77
3	Distribution, Diversity and Productivity of <i>Dendrocalamus stocksii</i> in the Western Ghats part of Karnataka	Dr S. Viswanath	April 2013 to March 2015	5.84	4.0	3.5	1.84	Karnataka Forest department (KFD)	KFD	3 <sup>rd</sup> installment of remaining amt will be released by KFD only after submission of Final PCR in 2015
4	Seed behavior and effect of differential drying and temperature on viability of <i>Mesuaferrea</i> and <i>Madhuca insignis</i> – species of wet evergreen forest of Western Ghats	Dr. Geeta Joshi	2013-2015	5.56	5.56	5.56		Karnataka Forest Department		Extension of project for 3 months would be seeked from funding agency for revalidation of desiccation studies in <i>Madhuca insignis</i> and compilation of

**Annexure-XI (Completed/EAP)**

										data and preparation of PCR
5	Growth assessment and genetic diversity of <i>Meliadubia</i> Cav. in Karnataka	Dr Arun Kumar A. N.	2013-2015	7.06	7.06	7.06		Karnataka Forest Department		Extension of project for 3 months would be sought from funding agency for data analysis of the molecular marker studies

**9. Rain Forest Research Institute (RFRI), Jorhat**

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Total Expenditure (Rs. in lakhs)	Balance if any	Full name of Funding Agency (national/ international)	Collaborators / collaborating institutes	Remarks
1.	Development of DUS descriptors and variability studies on <i>Bamboosa balcooa</i> and <i>Dendrocalamus hamiltonii</i> .	Shri R.K. Kalita, Scientist-E	3 years (2010-2013)	32.83 (Fund received 26.65 )	25.90	25.16	0.74	Protection of Plant Varieties & Farmers, Rights Authority (PPV&FRA, New Delhi)		Project to be Completed by March, 2015
2.	Identification of extent of forest lands in forest fringe village (Component).	Shri Ajay Kumar, Nodal Officer	3 years (2011-2014)	Initially approved 72.0. Fund received 28.90	28.50	28.13	0.77	National Rainfed Area Authority of India (NRAA)		Financial approval was up to 31st December, 2014.

## 10. Tropical Forest Research Institute (TFRI), Jabalpur

S.N.	Project Title	Principal Investigator	Duration (start & end date)	Total Budget sanctioned (Rs. in lakhs)	Tentative expenditure till march 2015 (Rs. in lakhs)	Total Expenditure (Rs. in lakhs)	Balance if any	Full name of Funding Agency (national/ international)	Collaborators/ collaborating institutes	Remarks		
1.	Standardization of technique to enhance the quality and sustainable production of <i>Diospyros melanoxylon</i> leaves in Chhattisgarh. With following three sub-projects:- <u>Sub Project-I</u> Standardization of pruning practices and optimum doses of organic and inorganic fertilizers to increase leaf surface area of tendu.	Dr. Avinash Jain Scientist-E	3 years 8 months from February 2011 to Sept. 2014	5.54	5.54	5.54	Nil	Chhattisgarh State Minor Forest Produce (Trading & Development) Co-op. Federation Limited, Raipur	Nil	-		
b.				<u>Sub Project-II</u> Standardization of management practices for leaf gall forming insect and diseases.	Dr. P. B. Meshram Scientist-F	1.95	1.70		1.69237	0.00763	Nil	-
c.				<u>Sub Project-III</u> Selection and cloning of superior germ plasm of <i>Diospyros melanoxylon</i> from Chhattisgarh.	Dr. Y. Mishra, Scientist-E	6.38	5.54		5.26	0.28	Nil	-
2.	Standardization of sustainable harvesting practices of Mahul Patta ( <i>Bauhinia vahlii</i> )	Smt. Neelu Singh Scientist- E	1 year, April, 2011 to Nov.,2014	9.34	Completed on Nov., 2014	9.03	0.31	Chhattisgarh Minor Forest Produce Federation, Raipur, CG	Nil	-		

**Participants of XVI Research Policy Committee (RPC) Meeting held on 27<sup>th</sup> to 28<sup>th</sup> February, 2015, AT ICFRE Hqrs, Dehradun**

1.	Dr. Ashwani Kumar, Director General, ICFRE
2.	Dr. G.S. Goraya, Dy. Director General (Research), ICFRE
3.	Dr. S.P. Singh, Dy. Director General (Admin), ICFRE
4.	Sh. Saibal Dasgupta, Dy. Director General (Extension), ICFRE
5.	Dr. Savita, Dy. Director General (Education), ICFRE
6.	Dr. N.S. Bisht, Director, International Cooperation, ICFRE & Director, RFRI, Jorhat
7.	Dr. N.K. Vasu, Director, AFRI Jodhpur
8.	Dr Ramesh K. Aima represented Director, FRI Dehradun
9.	Dr. V.P. Tewari, Director, HFRI Shimla
10.	Sh. M. R. G. Reddy, Director, IFB Hyderabad
11.	Dr. R.S. Prashanth, Director, IFGTB Coimbatore.
12.	Dr. S. A. Ansari, Director, IFP Ranchi.
13.	Dr. V. Ramakantha, Director, IWST Bengaluru.
14.	Dr. U. Prakasham, Director, TFRI Jabalpur
15.	Dr. Vimal Kothiyal, ADG (RP), ICFRE
16.	Dr. S.P.S. Rawat, Scientist F, ICFRE
17.	Dr. T.P. Singh, ADG (FCC), ICFRE
18.	Dr. Shilpa Gautam, Scientist D, ICFRE
19.	Dr. Anita Srivastava, Scientist – E, BCC Division, ICFRE
20.	Dr. Sushma Mahajan, Scientist F, ICFRE
21.	Dr. R.C. Dhiman, General Manager, WIMCO Ltd., Rudrapur (Uttarakhand)
22.	Dr Prashant K Pusalkar (BSI), Dehradun
23.	Dr. Lal Singh, Himalayan Research Group, Shimla, (H.P)
24.	Shri. S.T.S. Lepcha, APCCF, Uttarakhand, Forest Department, Uttarakhand
25.	Dr. C.N. Pandey, Former Director IPIRTI Bengaluru
26.	Prof. S.K. Sharma, (Former VC) , Scientist Emeritus, IHBT (CSIR), Palampur – (H.P)
27.	Dr. Rishi Indra Gill Sr. Scientist, Ludhiana
28.	Dr. Sanjay Singh Scientist-E, IFP, Ranchi
29.	P. Subramanyam GCR, TFRI, Jabalpur
30.	B.R. Bhadu GCR, AFRI, Jodhpur
31.	Dr. R.K. Borah GCR, RFRI, Jorhat
32.	Dr. Harsh, GCR FRI, Dehradun
33.	Dr. S. Pattanaik Scientist-E IFB, Hyderabad
34.	Dr. A. Balu Scientist-F IFGTB, Coimbatore
35.	Dr. A.N. Nicodemus Scientist-E IFGTB, Coimbatore
36.	Dr. K.S. Kapoor Scientist-G, HFRI, Shimla

**XVI RESEARCH POLICY COMMITTEE (RPC) MEETING OF ICFRE**

**Date** - 27<sup>th</sup> to 28<sup>th</sup> February, 2015  
**Venue** - Board Room, ICFRE HQs, Dehradun

Day 1: 27-02-2015		Programme
09.30 - 10.00 a.m.	Introduction and Presentation by DDG (R)	
	Remarks by DG, ICFRE	

**Thrust Area wise Presentation by Directors of ICFRE Institute and Discussion on:**

1. Review of all Ongoing Research Projects (A Gist) [1 minute/ project]
2. Brief of all externally aided projects (A Gist) [Overview - 2 minutes]
3. Ongoing projects with change request [1 minute/ project]
4. New Research Projects including those on shelf of XIII and XIV RPC [3 minutes/ project]

Thrust Area I Managing Forest and Forest Products for Livelihood Support and Economic Growth	
10.00 - 10.25	Arid Forest Research Institute, Jodhpur (ongoing, change request, new) [6 + 0 + 6]
<i>10.25-10.45 Tea</i>	
10.45 - 11.50	Forest Research Institute, Dehradun (ongoing, change request, new) [9 + 10 + 15]
11.50 - 12.15	Himalayan Forest Research Institute, Shimla (ongoing, change request, new) [3 + 2 + 7]
12.15 - 12.25	Institute of Forest Biodiversity, Hyderabad (ongoing, change request, new) [0 + 0 + 3]
12.25 - 12.40	Institute of Forest Genetics and Tree Breeding, Coimbatore (ongoing, change request, new) [1 + 0 + 5]
12.40 - 12.45	Institute of Forest Productivity, Ranchi (ongoing, change request, new) [0 + 0 + 2]
12.45 - 13.35	Institute of Wood Science & Technology, Bengaluru (ongoing, change request, new) [5 + 5 + 14]
<i>01.35 - 02.30 Lunch</i>	
14.30 - 14.45	Rain Forest Research Institute, Jorhat (ongoing, change request, new) [6 + 3 + 2]
14.45 - 15.00	Tropical Forest Research Institute, Jabalpur (ongoing, change request, new) [4 + 2 + 2]
Thrust Area-III: Forest and Climate Change	
-	Arid Forest Research Institute, Jodhpur (ongoing, change request, new) [No Project]
15.10 - 15.30	Forest Research Institute, Dehradun (ongoing, change request, new) [1 + 1 + 3]
15.30 - 15.35	Himalayan Forest Research Institute, Shimla (ongoing, change request, new) [1 + 0 + 2]
<i>15.35 - 16.00 Tea</i>	
-	Institute of Forest Biodiversity, Hyderabad (ongoing, change request, new) [No Project]
16.00 - 16.10	Institute of Forest Genetics and Tree Breeding, Coimbatore (ongoing, change request, new) [2 + 0 + 0]
-	Institute of Forest Productivity, Ranchi (ongoing, change request, new) [No Project]
-	Institute of Wood Science & Technology, Bengaluru (ongoing, change request, new) [No Project]
16.10 - 16.10	Rain Forest Research Institute, Jorhat (ongoing, change request, new) [1 + 0 + 0]
-	Tropical Forest Research Institute, Jabalpur (ongoing, change request, new) [No Project]
16.10 - 17.00	Discussion on Research Project Formulation and Prioritisation Process – introduction by DDG (Res)
17.00 - 17.30	Wrap up of day one

Day 2 : 28-02-2015	
Thrust Area-II: Biodiversity Conservation and Ecological Security	
10.00 - 10.10	Arid Forest Research Institute, Jodhpur (ongoing, change request, new) [2 + 2 + 1]
10.10 - 10.25	Forest Research Institute, Dehradun (ongoing, change request, new) [3 + 1 + 3]
10.25 - 10.35	Himalayan Forest Research Institute, Shimla (ongoing, change request, new) [0 + 0 + 2]
10.35 - 10.45	Institute of Forest Biodiversity, Hyderabad (ongoing, change request, new) [3 + 0 + 1]
10.45 - 11.00	Institute of Forest Genetics and Tree Breeding, Coimbatore (ongoing, change request, new) [3 + 0 + 3]
11.00 - 11.10	Institute of Forest Productivity, Ranchi (ongoing, change request, new) [1 + 0 + 2]
-	Institute of Wood Science & Technology, Bengaluru (ongoing, change request, new) [No Project]
<i>11.10 - 11.30 Tea</i>	

**Appendix - II**

<b>11.30 - 12.05</b>	<b>Rain Forest Research Institute, Jorhat</b> (ongoing, change request, new) [8 + 1 + 9]
<b>12.05 - 12.25</b>	<b>Tropical Forest Research Institute, Jabalpur</b> (ongoing, change request, new) [1 + 0 + 6]
<b>Thrust Area IV Forest Genetics Resources Management and Tree Improvement</b>	
<b>12.30 - 13.00</b>	<b>Arid Forest Research Institute, Jodhpur</b> (ongoing, change request, new) [5 + 2 + 7]
<b>13.00 - 13.25</b>	<b>Forest Research Institute, Dehradun</b> (ongoing-,change request, new) [1 + 0 + 7]
<i>13.25 - 14.15 Lunch</i>	
<b>14.15 - 14.20</b>	<b>Himalayan Forest Research Institute, Shimla</b> (ongoing, change request, new) [0 + 0 + 1]
<b>14.20 - 14.30</b>	<b>Institute of Forest Biodiversity, Hyderabad</b> (ongoing, change request, new) [1 + 0 + 3]
<b>14.30 - 15.30</b>	<b>Institute of Forest Genetics and Tree Breeding, Coimbatore</b> (ongoing, change request, new) [13 + 2 + 17]
<b>15.30 - 15.45</b>	<b>Institute of Forest Productivity, Ranchi</b> (ongoing, change request, new) [3 + 0 + 3]
<i>Tea served in meeting</i>	
<b>15.45 - 15.55</b>	<b>Institute of Wood Science &amp; Technology, Bengaluru</b> (ongoing, change request, new) [3 + 1 + 1]
<b>15.55 - 16.05</b>	<b>Rain Forest Research Institute, Jorhat</b> (ongoing, change request, new) [5 + 0 + 0]
<b>16.05 - 16.15</b>	<b>Tropical Forest Research Institute, Jabalpur</b> (ongoing, change request, new) [3 + 1 + 1]
<b>16.15 - 17.30</b>	<b>Wrap up of RPC and finalization of proceedings of RPC</b>
	<b>Remarks by RPC Member and Directors of Institutes</b>
	<b>Closing remarks by DDG (R), ICFRE</b>
	<b>Concluding Remarks by DG, ICFRE</b>
<i>17.30 Tea</i>	