### Indian Council of Forestry Research & Education (An Autonomous Body of the Ministry of Environment & Forests, Govt. of India) P. O. New Forest Dehra Dun – 248 006

## Proceedings of the XV Research Policy Committee (RPC) Meeting

6<sup>th</sup> – 8<sup>th</sup> March, 2014



**Thrust Areas of ICFRE Research:** 

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

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#### Indian Council of Forestry Research and Education (ICFRE)

# Minutes of the XV meeting of the Research Policy Committee (RPC) $6^{th} - 8^{th}$ March, 2014

1. XV meeting of Research Policy Committee (RPC) of the was convened at the Van Vigayan Bhawan, New Delhi under the Chairmanship of Dr. S. S. Garbyal, Director General, ICFRE from  $6^{th}$  to  $8^{th}$  March, 2014. 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, thereafter, presented an overview of the research mandate of ICFRE and the initiatives undertaken by the Council in fulfilling this mandate. He informed that the Council had adopted a thematic approach and had grouped the various forest research areas of the country under 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

3. Dr. Goraya informed the house that the concept of having National Project Directors (NPD) in respect of all the above 4 Research Thrust Areas, suggested during 2012-13, could not be put in place due to operational issues. Similarly, the concept of All India Coordinated Research Projects also needed putting in place a defined operational mechanism. He also drew attention of the Directors of the Institutes towards the need to submit Project Completion Reports in a time bound manner and requested for submission of all pending PCRs at the earliest. Timely availability and adequacy of budget for implementation of even approved projects, Dr. Goraya informed, remained an area of serious concern, affecting the project implementation and quality of outputs. 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. It was only due to inadequacy of budget that many a projects, approved by the RPCs during 2012 and 2013 could not be taken up for implementation.

4. Dr. Goraya, while providing an overview of the structure of the meeting, informed that the meeting was structured into 4 sessions to address each of the 4 Research Thrust Area in a focused way. Each session would have presentations from all the 9 Institutes and the structure of presentations would be -

- Overview of all the ongoing projects (both ICFRE funded and non-ICFRE funded)
- Ongoing projects with change request, and
- New proposals (all projects approved by RPCs in 2012 & 2013, and those were pending implementation due to fund constraints would be presented as new projects)

An analysis of the Thrust Area wise number of projects and the distribution of budget in respect of the ongoing and the proposed projects was thereafter presented.

5. Dr. Garbyal, DG, ICFRE & Chairman, RPC in his remarks advised Institutes to analyze their strength, weakness, scientific expertise/ facilities available and stakeholder needs while proposing

the research projects. While agreeing to the issue of fund constraints, he said that it was a serious issue of concern not only for ICFRE but for almost all research organizations in the country. He called upon the Directors and officials of the Institutes to make every effort to tap financial resources available with other funding agencies. The Chairman requested the RPC members to scrutinize new proposals from the point of view of their scientific merit and societal use and provide their valuable inputs for making the projects scientifically more rigorous and socio-economically more useful.

6. Address by the Chairperson was followed by Institute presentations (each Institute made four presentations, one each in four thematic sessions dedicated to research Thrust Areas of the Council as per program in Appendix II). Directors of FRI, IFGTB, AFRI, HFRI, TFRI, IWST, RFRI, IFP and IFB presented thrust area-wise overview and status of the Institute's ongoing projects. They also put up cases where some change of extension of duration/ change in budget/ change in objectives etc., in respect of some ongoing projects were 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 projects that were approved by the RPC during the year 2012 and 2013, but could not be taken up for implementation due to paucity of funds, were presented as new projects).

7. The 4 thematic sessions witnessed presentation on and review of the status of a total of 170 ongoing projects under implementation across ICFRE Institutes. During this review, cases for change in project period, objectives or budget line in respect of 46 ongoing projects were presented by the Directors. The RPC deliberated upon these cases in detail and in principle approved all the projects put up for extension of project duration, as non-allocation of required budget was cited as the major reason for seeking extension. The RPC also approved the dropping of the following three ongoing projects with directions to file proper closure reports in case of each of these three projects:

S.	Title of the Project	Institute	Reason for Dropping
No.			
1	Dendrochronological studies in relation to growth patterns of important conifer species of western Himalaya. PI: Dr. P K Pande (2012-17)	FRI	Little progress due to inadequate budget allocation. Birbal Sahni Institute was reported to be working on similar project. Project dropped to avoid duplicity.
2	Evaluation of <i>Madhuca indica</i> based silvi-agri system in arid and semi-arid zones of India. PI: Dr. Nanita Berry (2012- 17)	TFRI	Grafted <i>Madhuca indica</i> showed very poor performance, and further continuation of the project was not likely to result in any viable silvi-agri system. Thus, project dropped at this stage.
3	Stability analysis of Candidate Plus Clumps (CPCs) of bamboo and identification of CPCs specific SSR markers. PI: Dr. Mohd. Ibrahim (2013- 16)	RFRI	The CPCs identified across north-eastern states some years back were reported to be damaged due to biotic interference, making the project a non-starter.

The RPC scrutinized 106 new project proposals and approved 72 of these proposals for ICFRE funding. In addition, 15 proposals were approved in principle for seeking funding from sources other than ICFRE. Two new project proposals were withdrawn by the Directors and 17 proposals were rejected or returned for major modifications. The total budget outlay for ongoing projects works out to Rs. 43.86 crore with budgetary requirement of Rs. 6.96 crores during the year 2014-

15. Similarly, the total budget outlay for new approved proposals totals up to Rs. 13.38 crores with budgetary requirement of Rs. 4.11 crores during the year 2014-15.

8. The RPC members expressed their 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 2014-15 also, the RPC strongly recommended to -

- Accord first priority towards allocation of necessary budget to the ongoing projects.
- Prioritize the new project proposals approved by XV RPC in such a way that (a) the research work gets equally distributed amongst the scientific manpower available with the Institutes, and (b) the projects getting high stakeholder priority could be taken up on priority.
- Initiate implementation of the critically prioritized projects only on availability of required funds, to ensure that projects are culminated as planned. Thin and inadequate distribution of budget amongst new projects just to get these started should be discouraged.
- Continue making efforts to get funding from sources other than ICFRE for implementation of as many approved projects as possible.

9. Institute-wise detail of ongoing projects and new project proposals along with budgetary requirements is appended as Annexures I to IX. Information about the projects funded from sources other than ICFRE 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.

10. The three day deliberations witnessed sharing of perceptions about ICFRE's research program by the expert members from outside ICFRE and resulted in various suggestions by them, highlights of which are given below:

Prof. (Dr.) S. K. Sharma, Scientist Emeritus, IHBT, Palampur and former VC, Himachal Pradesh Agriculture University expressed satisfaction at the wide ranging and very useful research program of the ICFRE. He suggested venturing into inter-institutional mode for research in cutting edge areas to tide over the issues related to in-house manpower shortage in niche areas and for better and quicker results. He opined that other institutions could be the ICFRE institutes or other research organizations. Highlighting the need for making the research a paying proposition, he suggested that ICFRE should start focusing on commercialization of IPR and patents and develop capacity of its manpower in this area. To begin with, he suggested, data available with ICFRE and its Institutes could be considered for converting into resource generation activity. He advised the Council to get the clones/ varieties developed by it registered with appropriate authorities for legal protection and eventual commercialization. Based on his experience as Director, NBPGR, he strongly advocated the need for establishing a "National Bureau of Forest Genetic Resources (NBFGR)" to save and propagate the fast vanishing forest species from extinction. Since time available with RPC is limited, he called for more rigorous exercise at the Institute level and at the level of RAG before the projects are put to RPC.

Dr. S. K. Srivastava, Joint Director, Botanical Survey of India, Dehradun informed the members that the FRI herbarium, popularly known as DD herbarium, was one of the oldest herbariums of the country and contained a very large repository of type specimens. He suggested to accord digitization of herbarium following international standards the top priority. He also suggested immediate attention towards curing of sheets, updating the accessions, and segregation of type

specimens. He also called upon the Council's scientific manpower to use the latest accepted botanical nomenclature for species under research.

Dr. STS Lepcha, Addl. Pr. Chief Conservator of Forests, Uttarakhand Forest Department thanked the Chairman for providing him opportunity to have first hand information on the wide range of forestry related subjects that formed the subject of ongoing research program of the Council. He suggested developing a strong interface between foresters, researchers and politicians, especially in areas facing naxal/ extremism problems. He suggested special thrust on research pertaining to subjects viz. wild tubers, indigenous multipurpose trees, developing models for cyclone resistant with species and clones having better root: shoot ratio, etc.) for hilly areas. He congratulated the Council and its research manpower for the excellent work in various fields of forestry.

Dr. Lal Singh, Director, Himalayan Research Group, an NGO, thanked the Council for his nomination as member of RPC and said that he was very impressed by ICFRE's research program and result results. His major suggestion was towards ensuring wide dissemination of research results so that society at large could benefit from these efforts. He suggested having some formal forum at Institute level for annual information sharing between the ICFRE Institutes and the various stakeholders so that the gap between researcher and user groups may be bridged. He opined that the Council should develop strategies where by the state forest departments, the largest users of research, start feeling the need and importance for using research results. Agreeing with Dr. Lepcha, he desired more research emphasis on food security and livelihood issues.

Sh, T R Bisht, Bagwan Gram Udyog Smiti, Premnagar, Dehradun, appreciated the ongoing research program of the Council. He, however, desired that ICFRE may focus on day-to-day problems having larger impact on society, people and farmers. He cited the example of depleting nectar formation in agriculture crops affecting the honey bee populations and the pollination. He strongly recommended developing cost effective technologies for treatment of bamboo of various lengths for use by artisans. He also stressed upon the need to strengthen wild populations of Buras (Rhododendrons) in the hills.

Dr. A. R. Nautiyal, HAPPRC, HNB Garhwal University, expressed concern at the meagre financial resources available with the Council for research and called upon the authorities to strengthen the financial health of the Council for comprehensive research and better results. He called upon the Council to initiate time bound program for updating monumental works like 'Silviculture of Indian Trees'.

Dr. R C Dhiman, GM, WIMCO Ltd. Rudrapur, expressed that forestry research was a long term venture and required assured financial support over time. He expressed that low budget allocation for research vis-à-vis very high establishment cost was worrisome for a research organisation. He also suggested creation of a dedicated fund for strategic research in niche areas and for undertaking research of emergent nature, like natural calamities and outburst of diseases and insect attacks, etc. He drew attention towards the increasing gap between demand and supply of wood and suggested taking up research on genetic modification of trees for higher yield. He suggested development of introduction protocols for introduction of exotics/ new germplasm in the field. He also batted for establishment of species-specific Institutes, on pattern of ICAR, under the ICFRE umbrella for focused research on selected species. He wished ICFRE to create more space for conservation and protection forestry and for putting in place some mechanism for feedback on completed projects from the intended user agencies.

Dr. C. N. Pandey, former Director IPIRTI, stressed on developing mechanism for transfer of technologies to user group and emphasized on international exposure to scientists for achieving excellence. Forest products research needs to be up scaled in ICFRE to provide scientific and

technical back up to industries. Species base of industrial wood to be increased and availability or raw material to be enhanced as import of raw material may dwindle in future. He also suggested including provision for patenting in the project proposals.

11. Key suggestions made by the Directors of the ICFRE Institutes during the course of the RPC meeting are given below:

All the Directors raised the issue of inadequate research funds made available to them for implementation of even approved research program. Inability of the Institutes to take up research programs, especially those accorded very high priority by stakeholders, was resulting in embarrassment for the Institutes during subsequent stakeholder interactions. They also highlighted the need for allocating and making available funds for undertaking research of emergent nature and research activities other than projects, viz. long-term maintenance of trials, management of nurseries, implementation of Working Plans, etc.

Dr. N S Bisht, Director, RFRI Jorhat brought out the need for deputing senior officers/ scientists in RAG meetings to guide the younger scientists, especially in case of Institutes like RFRI that have only junior level scientists. He also drew attention towards the need to fill 20% of scientific posts at remote Institutes at local level to ensure continuity of research programs.

Dr. N Krishna Kumar, Director, IFGTB, Coimbatore drew attention towards mismatch between expectations vs. research funding from SFDs and called upon the DG to have consultation with PCCFs to address this issue. He also expressed that getting appropriate land from SFDs for long-term trials is an issue that needs intervention at the level of DG Forest, GoI. He called for suitable exposure to scientists in latest research techniques for competitive research.

Dr. U Prakasham, Director, TFRI, Jabalpur suggested to place new project proposals on intranet for obtaining suggestions before placing these projects in RAG.

Dr. K S Kapoor, Director, HFRI, Shimla suggested making specific provision for maintaining nurseries and trials.

Sh. M R G Reddy, Director, IFB, Hyderabad requested for filling the positions immediately on retirement, as any delay was causing delay in completion of projects. He also requested the DG to take up the case for allocating 1% of CAMPA funds for forestry research.

Dr. P P Bhojvaid, Director FRI, Dehradun called upon the Directors of all ICFRE Institutes to consider taking 10 students each from FRI Deemed University as Interns under various projects. He seconded the suggestion by Director, IFGTB and requested for developing mechanism for providing training to scientific manpower in key areas and in use of latest machinery. He also opined that FRI had the potential to get Central University Status.

Dr. S P Singh, DDG (Admn) drew attention towards a large battery of project staff including Project Assistants/ JRFs/ SRFs engaged under various projects. He called upon the PIs to critically evaluate this need and develop strategies for rational use of project staff.

12. Dr. Goraya, DDG (Res)-cum-Member Secretary, RPC, presented an overview of the proceedings of the RPC and informed that overview of more than 250 projects (including those funded by sources other than ICFRE) was presented to the RPC during its XV meeting for information and review. In addition, 106 new project proposals were presented that were deliberated upon in detail and 72 of these proposals approved form funding under ICFRE research program. He informed that projects funded by sources other than ICFRE were brought to RPC for its information and concurrence for the first time.

13. Dr. S. S. Garbyal, Director General, ICFRE-cum-Chairman RPC, in his closing remarks, thanked all the RPC members for their valuable contribution. He stressed upon the need for the Council to enhance its visibility in the society so that efforts of ICFRE could be appreciated and put to use by one and all. He also called for introspection as to whether the Council's research program was relevant and undertake corrective measures wherever necessary. One of the ways to achieve this, he said, was to provide solutions to day-to-day problems faced by various user groups. The council also needs to have major focus on indigenous species. Drawing attention towards the direct relevance of bamboo to people's livelihood, he suggested more research work on use of bamboo as structural material. He proposed six monthly interactions within Council's Institutes, and suggested holding such interactive seminars at different Institutes in rotation for better exposure of work at other Institutes. He also called for improving inter-institutional collaboration for comprehensive handling of various research issues. He also called for improving the quality of research papers and other publications and bringing these at par with international standards. 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 DDG (Research) and his team in compiling the huge project data and successfully conducting the RPC meeting.

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

Approved by Director General, ICFRE (Chairman RPC) at N/14 of file 72(XV)/2014/ICFRE(R)/RP on 2<sup>nd</sup> April, 2014

#### **Total Budgetary Outlay for the Approved ICFRE Funded Projects**

	Total No. of	Projects Presented	Total No. of I	Projects Approved
	No. of Projects	Total Budget Outlay	No. of Projects	Total Budget Outlay
FRI	43	1340.93	42	1301.34
IWST	22	315.85	22	315.85
IFGTB	26	634.22	26	634.22
IFP	7	158.17	7	158.17
TFRI	19	885.60	18	873.75
AFRI	17	446.27	17	446.27
HFRI	8	122.20	8	122.20
IFB	7	152.02	7	152.02
Sub Total	149	4055.26	147	4003.82
RFRI	21	408.60	20	381.93
Total (Rs lakhs)	170	4463.86	167	4385.75
		(or 44.64 crores)		(or 43.86 crores)

### Table 1a: Ongoing Projects for the year 2014-15

### Table 1b: New Approved Projects for the year 2014-15

	Total No. of	Projects Presented		
	No. of Projects	Total Budget Outlay	No. of Projects	
FRI	21	305.78	12	177.83
IWST	8	76.94	5	56.48
IFGTB	23	599.45	20	513.83
IFP	7	161.88	4	107.57
TFRI	15	182.65	8	84.59
AFRI	12	297.10	5	106.73
HFRI	8	133.07	7	105.89
IFB	2	49.52	2	49.52
Sub Total	96	1806.39	63	1202.44
RFRI	10	155.81	9	135.67
Total (Rs lakhs)	106	1962.20	72	1338.11
		(or 19.62 crores)		(or 13.38 crores)

#### **Table 1c: Total Budgetary Outlay of ICFRE Funded Projects**

S. No.	Project Type	Total No. of Projects Approved (Rs. in Crores)	Total Budget Outlay (Rs. in Crores)
1	Ongoing Projects for the year 2014- 15	167	43.86
2	New Approved Projects for the year 2014-15	72	13.38
	G. Total:	239	56.24

#### **Budgetary Requirement for the Approved ICFRE Funded Projects for the year 2014-15**

Institute	Sub Head wi	se budgetary re	equirement (R	ts in lakhs)	for 2014-15 for	ongoing projects
	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total
FRI, Dehradun	16.26	41.22	51.53	41.63	25.82	176.46
IWST, Bangalore	7.07	14.93	11.93	21.08	4.71	59.72
IFGTB, Coimbatore	20.36	21.27	43.40	35.51	2.95	123.49
IFP, Ranchi	4.97	8.71	7.32	10.75	21.00	52.75
TFRI, Jabalpur	16.46	12.75	22.17	20.04	5.00	76.42
AFRI, Jodhpur	6.79	11.81	21.42	25.57	3.11	68.70
HFRI, Shimla	5.06	3.49	5.95	9.66	0.00	24.16
IFB, Hyderabad	5.32	5.27	6.66	10.14	3.50	30.89
Sub Total:	82.29	119.45	170.38	174.38	66.09	612.59
		Nor	th East			
RFRI, Jorhat	19.53	18.98	20.35	23.76	0.30	82.92
Grand Total:	101.82	138.43	190.73	198.14	66.39	695.51 (or 6.96 crores)

#### Table 2a: Budgetary Requirements for Ongoing Research Projects for 2014-15

#### Table 2b: Budgetary Requirements for New Approved Research Projects for 2014-15

Institutes	Sub Head	wise budgetry	requirement (	(Rs in lakhs	) for 2014-15 fo	or new projects
	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total
FRI, Dehradun	5.20	14.35	10.08	17.56	8.10	55.29
IWST, Bangalore	1.00	2.75	3.90	5.76	14.80	28.21
IFGTB, Coimbatore	32.40	15.65	38.91	30.39	12.20	129.55
IFP, Ranchi	3.55	9.20	4.50	5.63	28.00	50.88
TFRI, Jabalpur	4.15	3.10	5.02	8.31	1.55	22.13
AFRI, Jodhpur	4.81	3.00	4.20	10.08	8.40	30.49
HFRI, Shimla	7.10	3.25	5.15	6.83	1.60	23.93
IFB, Hyderabad	1.10	0.80	0.66	3.27	12.24	18.07
Sub Total:	59.31	52.10	72.42	87.83	86.89	358.55
		Nor	th East			
RFRI, Jorhat	12.79	9.82	9.40	10.93	9.77	52.71
Grand Total:	72.10	61.92	81.82	98.76	96.66	411.26 (or 4.11 crores)

#### Table 2c: Total Budgetary Requirement for ICFRE Funded Projects for 2014-15

Tuble 201 Total Duagetai		v				
Institutes	Sub I	Head wise total	l budgetary re	quirement (Rs i	n lakhs) for 201-	4-15
	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total
Ongoing project	82.29	119.45	170.38	174.38	66.09	612.59
New Projects	59.31	52.10	72.42	87.83	86.89	358.55
Sub Total 1	141.50	171.55	242.70	262.21	152.98	971.04
		North East	(RFRI Jorha	t)		
Ongoing projects	19.53	18.98	20.35	23.76	0.3	82.92
New Projects	12.79	9.82	9.4	10.93	9.77	52.71
Sub Total 2	32.32	28.8	29.75	34.69	10.07	135.63
Grand Total (1+2)	173.525	200.038	272.15	296.904	163.05	1106.77

 Table 3: Summary of the budgetary requirements of the Institutes for miscellaneous research activities other than RPC approved research projects

S.	Name of the Institute	RAG / RPC meetings	Miscellaneous*	Institute wise total
No.				
1	FRI Dehradun**	1.75	90.00	91.75
2	IWST Bangalore	1.25	5.00	6.25
3	IFGTB Coimbatore	1.75	40.00	41.75
4	IFP Ranchi	1.00	5.00	6.00
5	TFRI Jabalpur	1.25	18.00	19.25
6	AFRI Jodhpur	1.00	5.00	6.00
7	HFRI Shimla	1.00	5.00	6.00
8	IFB Hyderabad	0.50	6.00	6.50
9	RFRI Jorhat	1.00	10.00#	11.00
10	Directorate of Research, ICFRE	2.20	5.00	7.20
11	Total (Rs. in lakhs)	12.70	189.00	201.70

\* Maintenance of nurseries / plantations / field stations/field trials / laboratories / equipments / bamboosetum / herbarium / botanical gardens, /seed banks /patent fees / working plan of FRI

\*\* including CSFER Allahbad; # Capital (scientific equipments)

# Purchase of equipments

		FRI	IWST	IFGTB	IFP	TFRI	AFRI	RFRI	HFRI	IFB	Total
Thrust	Ongoing	60.81	45.01	17.88	4.11	19.98	35.42	34.95	11.8	0.4	230.36
Area I	New	13.25	28.21	11.82	11.08	4.61	15.33	7.13	6.97	6.07	104.48
	Total	74.06	73.22	29.7	15.19	24.59	50.75	42.08	18.77	6.47	334.83
Thrust	Ongoing	23.48	0	0	4.4	2.34	1.5	21.8	7.07	21.24	81.83
Area II	New	12.51	0	18.05	0	12.64	8.38	27.36	9.59	0	88.53
	Total	35.99	0	18.05	4.4	14.98	9.88	49.16	16.66	21.24	170.36
Thrust	Ongoing	32.68	1.32	5.97	0	0	3.83	1.35	3.81	0	48.96
Area	New	0	0	2.69	0	0	6.78	10.90	7.37	0	27.74
Ш	Total	32.68	1.32	8.66	0	0	10.61	12.25	11.18	0	76.7
Thrust	Ongoing	59.49	13.39	99.64	44.24	54.1	27.95	24.82	1.48	9.25	334.35
Area	New	29.53	0	96.99	39.80	4.88	0	7.32	0	12.00	190.52
IV	Total	89.02	13.39	196.63	84.04	58.98	27.95	32.14	1.48	21.25	524.88
Grand T	Grand Total		87.93	253.04	103.63	98.55	99.19	135.63	48.09	48.97	1106.77

Table 4: Thrust area wise budget breakup for 2014-15 for ongoing and new projects

<b>1</b> (a) 7	<b>Fhrust</b> Area	wise s	ummary	of approv	ved nu	mber of	ongoing	and nev	w projec	ts	Total
		FRI	IWST	IFGTB	IFP	TFRI	AFRI	RFRI	HFRI	IFB	
Thrust	Ongoing	28	18	5	1	11	7	8	4	1	82
Area I	New	5	5	2	1	2	3	2	2	1	23
	Total	33	23	7	2	13	10	10	6	2	107
Thrust	Ongoing	8	0	0	1	1	1	7	2	3	23
Area II	New	4	0	4	0	4	1	5	3	0	21
	Total	12	0	4	1	5	2	12	5	3	44
Thrust	Ongoing	3	1	2	0	0	1	1	1	0	09
Area III	New	0	0	1	0	0	1	1	2	0	05
	Total	3	1	3	0	0	2	2	3	0	14
Thrust	Ongoing	3	3	19	5	6	8	4	1	3	52
Area IV	New	3	0	13	3	2	0	1	0	1	23
	Total	6	3	32	8	8	8	5	1	4	75
Gran	d Total	54	27	46	11	26	22	29	15	9	238

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

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

		FRI	IWST	IFGTB	IFP	TFRI	AFRI	RFRI	HFRI	IFB	Total
	Ongoing	0	1	0	0	0	0	0	0	0	1
Consultant	New	0	0	0	0	0	0	0	0	0	0
	Ongoing	1	0	0	0	0	0	0	0	0	1
RA	New	0	0	0	0	0	1	0	0	0	1
	Ongoing	3	0	5	1	0	0	0	0	0	9
SRF	New	1	0	1	0	0	0	0	0	0	2
	Ongoing	6	8	12	2	7	9	7	1	3	55
JRF	New	5	4	15	3	2	3	3	1	2	38
JRF	Ongoing	15	8	0	2	0	0	2	2	6	35
РА	New	3	1	0	0	0	0	3	8	0	15
	Ongoing	7	0	6	5	12	14	13	7	2	66
FA	New	3	0	1	1	7	1	3	1	0	17
Skilled/	Ongoing	4	0	3	0	0	0	0	0	0	7
Unskilled	New	1	0	6	0	0	0	0	0	1	8
	Ongoing	36	17	26	10	19	23	22	10	11	174
Total	New	13	5	23	4	9	5	9	10	3	81

### Forest Research Institute, Dehradun

### A. Ongoing Projects

		get	Sub Hea		akup of bu 1 lakhs) fo			ent (Rs.	er	
SI. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	st area I: Managing Forests and Forests	Products fo	or livelihoo	d support	& econom	ic growtl	ı			
1	Structural studies and utilisation of <i>Acacia tortilis</i> gum exudates. PI: Dr Vineet Kumar, 2012-15 (3 years)	4.5	0.1	1	0.65	0	0	1.75		Approved for continuation.
2	Prospecting fungal resources for development of natural dye, PI: Dr. Rakesh Kumar, 2012-15 (3 years)	6.18	0.1	0.3	1.29	0	0	1.69		Approved for continuation
3	Development of models of some important medicinal plants with <i>Melia</i> <i>composita</i> and <i>E. officinalis</i> in degraded land of Punjab and Uttarakhand. Rambir Singh, 2011-16 (5 years)	9.83	0.275	0.025	0.8	0	0	1.1		Approved for continuation
4	Study on status of Agroforestry systems existing in Punjab, Haryana, Uttarakhand and North-West region of Uttar Pradesh. PI: Sandeep Kujur, 2012-15 (3 years)	17.1	1.16	0	0.15	0.84	0	2.15	1 FA	Approved for continuation
5	Enhancing fodder productivity through Silvi-pasture system on degraded land of India. PI: Dr. Charan Singh, 2012-17 (5 years)	8	0.21	0.03	0.7	0	0	0.94		Approved for continuation
6	Studies on working quality and finishing aspects of <i>Melia composita</i> . Dr. Kishan Kumar, 2012–16(4 yrs)	18.48	0	0.8	1.2	1.02	0	3.02	1 PA	Approved for continuation

1	2	3	4	5	6	7	8	9	10	11
7	Development of composites of lops and tops of <i>Melia composita</i> . PI: D.P. Khali, 2012-2015 (3 years)	8.1	0.3	2.7	2.81	0	0	5.81		Approved for continuation
8	Vacuum press drying studies of <i>Melia</i> composita. PI: Shailendra Kumar, 2012-2015(3 years)	3.35	0	0.52	0.4	0	0.5	1.42		Approved for continuation
9	Study on performance of treated timbers (ZiBOC, CCB & CCA) and their natural durability in cooling towers. Dr. S. Tripathi, 2010-15 (5 yrs)	9.63	0.2	0.3	0.05	1.02	0.05	1.62	1 PA	Approved for continuation
10	Studies on natural durability of plantation grown species with conventional /eco-friendly preservatives (ZIBOC). PI: Dr. Sadhna Tripathi, 2012-17 (5years)	8.08	0.2	0.2	1	0.84	0.05	2.29	1 FA	Approved for continuation
11	Development of suitable model for enrichment of selected Medicinal Plant Conservation Areas (MPCAs) of Uttarakhand Himalayas. Dr B.P. Tamta, 2011-16 (5 Years)	7.35	0.6	0	1.9	0	0	2.5		Approved for continuation
12	Studies on diversity of egg parasitoid wasps Trichogramma spp. from Punjab and Haryana and their application in biological control of important forest insects' pests. PI: Dr. Mohd. Yousuf, 2012-16 (4 years)	11.94	0.8	0.25	0.25	1.02	0	2.32	1 PA	Approved for continuation
13	Biology of hispine Bamboo borer Estigmena chinensis (Coleoptera: Chrysomelidae) damaging green standing bamboo and its management. PI: Dr. K.P. Singh, 2012-16 (4 years)	10.01	0.35	0.25	2.2	0	0	2.8		Approved for continuation
14	Studies of effect of Nanoclay (sodium montmorillonite) as filler on physical and mechanical properties of wood based composita. PI: Ismita Nautiyal, 2012-2015 (3 years)	4.3	0	0.8	0.7	0	0	1.5		Approved for continuation

1	2	3	4	5	6	7	8	9	10	11
15	To develop Medium Density Fiber Board (MDF) from lops and tops of poplar. PI: Ismita Nautiyal, 2012-2015 (3 years)	7.35	0.2	1.3	0.8	0	0	2.3		Approved for continuation
16	Phytochemical screening of selected wild edible plants for exploration of new sources of Luteolin. (FRI-544/ Chem-34). PI: Dr. Y.C. Tripathi, 2011- 14 (3 years) (Change Request)	8.65	0.25	0.75	0.5	1.44	0	2.94	1 JRF	Approved 1 year extension within approved budget upto March 2015.
17	Process refinement for extraction of quality fiber and optimal isolation of bioactive constituents from <i>Agave</i> <i>sisalana</i> . PI: Dr. Y.C. Tripathi, 2011-14 (3 years) (Change Request)	8.4	0.13	0.8	0.5	1.44	0	2.87	1 JRF	Approved 1 year extension within approved budget upto March 2015.
18	Refining of process for detoxification studies of Jatropha seed oil. PI : Dr. Vineet Kumar, 2010-13 (1 year extension was granted upto March 2014), (Change Request)	7.96	0.25	0.5	0.5	1.44	0	2.69	1 JRF	The project was granted one year extension by 2013 RPC upto March 2014. 2 <sup>nd</sup> extension of 1 year upto March 2015 is approved. PI to complete the project within extended time frame.
19	Utilisation of <i>Pinus roxburghii</i> needles for value added products. PI : Dr. Vineet Kumar, 2012-15 (3 years) (Change Request)	14.5	0	0.6	0.4	0.84	0	1.84	1 FA	Project was approved by RPC 2012 without JRF. RAG 2014 recommended for 1 JRF. RPC 2014 approved one FA within approved budget
20	Enzyme aided alternative process for the extraction of oil from <i>Cymbopogon</i> <i>citratus</i> (lemon grass), PI: Dr. Rashmi, 2011-14 (3 years) ( <b>Change Request</b> )	5.97	0.05	0.5	0.24	1.02	0.05	1.86	1 PA	Approved extension of 1 year within approved budget upto March 2015.
21	Phytochemcial studies on Medicinally <i>Diploknema butyracea</i> (Indian Butter Tree) seeds, PI: Dr. Rashmi, 2010-13 (1 year extension was granted upto 2014) ( <b>Change Request</b> )	6.12	0.05	0.25	0.05	1.08	0.07	1.5	1 JRF	The project was granted one year extension by 2013 RPC upto March 2014. 2 <sup>nd</sup> extension of 1 year upto March 2015 is approved. PI to complete the project within extended period
22	Refinement in vacuum timber dryer designed by FRI and its performance studies. PI: N.K. Upreti, 2012-14 (2 years)( <b>Change Request</b> )	2	0.16	0.1	0.18	0	0	0.44		Approved. 1 year extension upto March 2015.

1	2	3	4	5	6	7	8	9	10	11
23	Studies on performance of ZiBOC treated imported wood in different agro climatic conditions. Dr. S. Tripathi, 2009-14 (5 years) ( <b>Change Request</b> )	6	0.1	0.29	0.3	0	0	0.69		Approved. 2 year extension upto March 2016 within approved budget.
24	Chemical modification of wood for durability improvements. PI: Sh. Ajmal Samani, 2011-14 (3 yrs) (Change Request)	6.66	0.08	0.5	0.4	1.02	0	2	1 PA	Approved 1 year extension within approved budget up to March 2015 along with the extension of PA.
25	Studies on thrips of forest and medicinal plants, problems caused by them and their management in uttatakhand PI: Dr. Neena Chauhan, 2011-15 (4 years)(Change Request)	9	0.35	0.1	0.1	1.02	0	1.57		Approved dropping of objective No. 4 "Diseases mediated by thrips as vectors will be identified"
26	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, 2011-14 (3 years) (Change Request)	3.9	0.1	0.25	0.25	0.7	0	1.3	1 FA	Approved 1 year extension within approved budget along with change in title (Evaluation of <i>Santalum album</i> grown in Uttarakhand for yield, quality and composition of essential oil) and objective (take samples from Bilaspur (H.P.) in place of UP)
27	Digitization of Herbarium (Dehradun Herbarium) of Forest Research Institute. PI: Ms Ranjana Negi, 2008- 13 (5 years)( <b>Change Request</b> )	43.23	0	0	0.3	5.1	0	5.4	5 PA	Extension approved upto March 2016 with additional budget of Rs 17.90 lakhs. Total cost of project will be now Rs. 61.13 lakhs.
28	Development of molecular diagnostic kits for identification and early detection of nursery and plantation pathogens of Eucalyptus. PI: Dr. Amit Pandey, 2011-14(3 yrs) (Change Request)	12.53	0.2	0.8	1.5	0	0	2.5		Approved for 1 year extension upto March 2015 within approved budget.
	Total	269.12	6.215	13.915	20.12	19.84	0.72	60.81	3 JRF, 10 PA, 5 FA	
	st Area II: Biodiversity conservation an								1	
29	Impact of invasive species on plant diversity in selected forest sites of Uttarakhand, Haryana and Punjab. PI: Dr. Anup Chandra, 2012-15 (3 years)	8.67	0.3	0	0.5	2.01	0	2.81	1 SRF	Approved for continuation

1	2	3	4	5	6	7	8	9	10	11
30	Networking Project on Rare and Endangered Species (Inventorization, characterization and conservation strategies of selected rare and endangered plant species of India). PI: Dr. Anup Chandra, 2012-17 (5years)	23.9	0.5	0.5	0.5	2.88	0	4.38	1 RA and 1 FA	Approved for continuation
31	Studies on Taxonomy of the family Eulophidae (Hymenoptera: Chalcidoidae) present in National Forest Insect Collection (NFIC) except Doon Valley. PI: Dr. Sudhir Singh, 2010-2015 (5years)	6	0.15	0.98	0.35	0	0	1.48		Approved for continuation
32	Studies on Taxonomy of the family Encyrtidae (Hymenoptera: Chalcidoidae) present in National Forest Insect Collection (NFIC) except Doon Valley. PI: Dr. Sudhir Singh, 2010-15 (5years)	6	0	0.27	0.32	0	0	0.59		Approved for continuation
33	Allelopathic Potential in Regeneration of Sal ( <i>Shorea robusta</i> ) forests. [FRI- 579 /Silvi-55], PI: Dr. Ombir Singh, 2011-16 (5years)	13.43	0.25	0.55	1.4	1.02	0	3.22	1 PA	Approved for continuation
34	Interaction between <i>Pesudomonas</i> fluorescens and AM fungus on Dendrocalamus strictus Dr. Y P Singh, 2010-15 (5 years)	12.56	0.25	0.25	0.4	1.44	0	2.34	1 JRF	Approved for continuation
35	Phyto-remediation of water logged waste land through Biodrainage & soil amendments. PI: Dr. Kumud Dubey, 2010-15 (5 years) (CSFER, Allahabad)	9.9	0.3	0.1	1.3	0.84	0	2.54	1 FA	Approved for continuation
36	Restoration of Sand Stone Mining Area of Vindhyan Region through Microbial Technology. Dr Kumud Dubey, 2012-17 (5 yrs), (CSFER)	29.45	0.7	0.5	3.24	1.68	0	6.12	1 SRF	Approved for continuation
	Total	109.91	2.45	3.15	8.01	9.87	0	23.48	1RA, 2 SRF, 1JRF, 1PA, 2 FA	

Thrust Area III: Forests and climate change         37       Dendrochronological studies in relation in growth pattern of important confir species of Western Himalayas. PI: Dr. P. K. Funde, 2012-17 (Syears)       39.9       0	1	2	3	4	5	6	7	8	9	10	11
to growth pattern of important confer species of Western Himalayas, Pf: Dr. P. K. Pande, 2012-17 (Syears)47.171.5220.9617.461PAApproved for continuation38Process Based Carbon Sequestration Study, Hukum Singh (2) years)47.171.5220.9617.461PAApproved for continuation39AICP on clevated CO2, PI: Dr. Hukum Singh (3) year-1 Phase), 2012-17 (Syears)481.53.81.80.96210.061 PAApproved for continuation40Assessment of Ecosystem Services Imparted by Forest Of Uttarakhand, PI: Manoj Kumar, 2012-17 (Syears)69.741.53.124.56415.161 JRF, 4 Unskilled7Total204.54.58.95.86.48732.681 JRF, 2 PA, 4 	Thru	st Area III: Forests and climate change									
Study. Hukum Singh, 2012–17 (Syears)Image: Study. Hukum Singh, 2012–17 (Syears)Image: Study. Hukum Singh, 2012–17 (Syears)Image: Study. Hukum Singh, 3 year-1 Phase), 2012–15 (Syrss)Image: Study. Hukum Singh, 2012–17 (Syears)Image: Study. Hukum Singh, 2012–217 (Syears)Image: Study	37	to growth pattern of important conifer species of Western Himalayas. PI: Dr.		0	0	0	0	0	0		Dropped on request from FRI
Singh (3 year-I Phase), 2012–15(3 yrs) </td <td>38</td> <td>-</td> <td>47.17</td> <td>1.5</td> <td>2</td> <td>2</td> <td>0.96</td> <td>1</td> <td>7.46</td> <td>1 PA</td> <td>Approved for continuation</td>	38	-	47.17	1.5	2	2	0.96	1	7.46	1 PA	Approved for continuation
Imparted by Forest of Uttarakhand. PI: Manoj Kumar, 2012–17 (Syears)Image: Second Sec	39		48	1.5	3.8	1.8	0.96	2	10.06	1 PA	Approved for continuation
Image: series of the series	40	Imparted by Forest of Uttarakhand. PI: Manoj Kumar, 2012–17 (5years)						4		4 Unskilled	Approved for continuation
41Requirement for FRI: All India Coordinated Project on Genetic improvement of Melia composita Willd. All India Project Coordinator : Dr Ashok Kumar, 2012-17 (5 years)719.56210151.61846.61 JRFFRI is to submit total budget outlay of its component. Rs. 719.56 lakhs is the outlay of all the components of AICP.42Evaluation of Bombax ceiba for seeds sources in Northern India. Dr Dinesh Kumar, 2011-2015 (4years)13.390.60.251.62.160.14.712 PAApproved for continuation43Population genetic analysis of Himalayan Banj Oak (Quercus 		Total	204.5	4.5	8.9	5.8	6.48	7	32.68	PA, 4	
Coordinated Project on Genetic improvement of Melia composita Wild. All India Project Coordinator : Dr Ashok Kumar, 2012-17 (5 years)Image: Second	Thru	st area IV: Forest Genetic Resource Mai	nagement a	nd Tree In	nprovemen	ıt					
42Evaluation of Bombax ceiba for seeds sources in Northern India. Dr Dinesh Kumar, 2011-2015 (4years)13.390.60.251.62.160.14.712 PAApproved for continuation43Population genetic analysis of Himalayan Banj Oak (Quercus leucotrichophora) forests and its pertinence to genetic conservation. PI: Dr. H S Ginwal, 2011-14, (Change Request)24.450.5511.6808.181 SRFApproved for 1 year extension upto March 2015 within approved budget.43Population genetic analysis of Himalayan Banj Oak (Quercus leucotrichophora) forests and its pertinence to genetic conservation. PI: Dr. H S Ginwal, 2011-14, (Change Request)24.450.5511.6808.181 SRFApproved for 1 year extension upto March 2015 within approved budget.43Population genetic conservation. PI: Dr. H S Ginwal, 2011-14, (Change Request)757.43.115.2517.65.4418.159.491 SRF, 1 JRF, 2 PA	41	Coordinated Project on Genetic improvement of <i>Melia composita</i> Willd. All India Project Coordinator :	719.56	2	10	15	1.6	18	46.6	1 JRF	its component. Rs. 719.56 lakhs is the
Himalayan Banj Oak (Quercus leucotrichophora) forests and its pertinence to genetic conservation. PI: Dr. H S Ginwal, 2011-14, (Change Request)Image: Conservation of the second s	42	Evaluation of <i>Bombax ceiba</i> for seeds sources in Northern India. Dr Dinesh	13.39	0.6	0.25	1.6	2.16	0.1	4.71	2 PA	Approved for continuation
JRF, 2 PA	43	Population genetic analysis of Himalayan Banj Oak ( <i>Quercus</i> <i>leucotrichophora</i> ) forests and its pertinence to genetic conservation. PI: Dr. H S Ginwal, 2011-14, ( <b>Change</b> <b>Request</b> )									
		Total	757.4	3.1	15.25	17.6	5.44	18.1	59.49		
		Grand Total	1340.93	16.265	41.215	51.53	41.63	25.82	176.46	JAF, 21A	

### **B.** New Projects

		Dutlay	Sub Hea		akup of b 1 lakhs) fo			ent (Rs.	er	
SI. N o.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thr	ust area I: Managing Forests and Forests Products for liv	elihood sup	port & eco	nomic gro						
44	Chemical examination and value addition of edible mushrooms <i>Astraeus hygrometricus</i> and <i>Calocybe indica</i> . PI: Dr. V.K. Varshney, 2014-16 (3 Years)	6.27	0.1	1	0.25	0.84	0	2.19	1 FA	Approved for species only, i.e., <i>Astraeus</i> <i>hygrometricus</i> . Budget to be modified accordingly.
45	Studies on vacuum kiln drying behaviour of selected species of bamboo. PI: Shri. N K Upreti, 2014-15 (2 yrs)	4.38	0	0	0	0	0	0		Approved for external funding
46	Use of near infrared spectroscopy for rapid evaluation of physical and strength properties of Melia spp. PI: Dr. Y.M. Dubey, 2014-15 (2 Years)	3.95	0.05	0.15	0.25	0	1.50	1.95		Approved
47	Assessment of Wet End Additives Blends and their Chemical Derivatives in Papermaking. PI: Dr. P. K. Gupta, 2014-16 (3 Years )	8.84	0	0	0	0	0	0		Approved for exploring external funding from industries.
48	Assessment of <i>Areca catechu</i> husk as alternative raw material for papermaking. Dr Vikas Rana, 2014-15(2 yrs)	5.88	0	0	0	0	0	0		Not Approved
49	Effect of different adhesives on the bending strength of finger jointed Eucalyptus sections. PI: Dr. Kishan Kumar V.S. 2014-16 (3 years)	9.98	0	0.5	0.85	1.4	0	2.75	1 JRF	Approved
50	Study on the effect of environmentally safe ZiBOC preservative on the strength properties of imported timbers. PI: Ajmal Samani, 2014-16 (2 Years)	4.035	0	0	0	0	0	0		Not Approved
51	New Forest Handicraft Extension counter at FRI. 2014- 16 (2 years)	6.6	0	0.6	0	3	0	3.6	1 Skilled Worker	Approved as extension project
52	Evaluation of some biopesticides for the management of termites in nurseries and plantations PI: Dr. Shamila Kalia, 2014-18 (4 years)	10.54	0.6	0.3	0.9	0.96	0	2.76	1 PA	Approved

1	2	3	4	5	6	7	8	9	10	11
	Total	60.475	0.75	2.55	2.25	6.2	1.5	13.25	1 JRF, 1 FA, 1 PA, 1 Skilled	
	ust Area II: Biodiversity conservation and ecological secu				1		•		1	
53	formulation for disease biocontrol and plant growth promotion of eucalypts seedlings. PI: Dr. Amit Pandey, 2014-17 (3 Years)	14.08	0.3	0.5	0.9	2.28	0	3.98	1 JRF, 1 FA	Approved with modification.
54	Enhancing seed germination by devising suitable pretreatments and developing propagation techniques of <i>Corylus jacquemontii</i> – an economically important species from Himalayan temperate forests. PI: Dr. Manisha Thapliyal, 2014 17 (3 years)	11.09	0	0	0	0	0	0		Not Approved
55	Impact assessment of forest fire on ecology and forest vegetation on the forests of Uttarakhand. PI: V.K. Dhawan, 2014-17 (3 years)	8.04	0.8	0.15	0.35	0.96	0	2.26	1 JRF	Approved
56	Seed Bank Dynamics in Sal forests of Doon Valley. PI: Dr. Ombir Singh, Sci-D, 2014 18 (4 years)	12.4	0.15	0.5	1.2	1.2	0	3.05	1 PA	Approved
57	Altitudinal pattern in forest soils, litter mass and root distribution in Yamuna catchment. PI: Dr. B. M. Dimri, 2014-18 (4Years)	14.46	0	0	0	0	0	0		Not Approved
58	Nodulation and nitrogen fixation study in the <i>Sesbania</i> <i>rostrata</i> Brem. in relation to fertility of the soil. PI: Dr. S. P. Chaukiyal, 2014-17 (3 years)	7.46	0	0.1	1.08	1.04	1	3.22	1 FA	Approved
59	Conservation oriented mapping & selection of superior quality temprate medicinal plants programme (Phase I). PI: Dr. A. K. Sharma, 2014-19 (5 years)	44.743	0	0	0	0	0	0		Explore external funding after modification of project.
	Total	112.273	1.25	1.25	3.53	5.48	1	12.51	2 JRF, 1 PA, 2FA	
Thr	ust Area III: Forests and climate change	•			•					
60	Identification of factors/indicators contributing to vulnerability of mountain ecosystems to climate change. PI: Dr. Laxmi Rawat, 2014-17 (3 years)	14.54	0	0	0	0	0	0		Not approved
	Total	14.54	0	0	0	0	0	0		
Thr	ust area IV: Forest Genetic Resource Management and T									
61	Selection and genetic evaluation of <i>Ailanthus excelsa</i> germplasm in Northern India. PI: Dr. Rama Kant, 2014-18 (4 Years)	47.32	1.95	3.85	2	2.76	0.8	11.36	1 JRF, 1 PA	Approved. Revise and reduce the budget and requirement of 2014-15

1	2	3	4	5	6	7	8	9	10	11
62	Development of Microsatellite and DNA Barcoding	20.19	0.5	3	1.1	1.68	0.8	7.08	1 SRF	Approved
	based methods for tracing timber origin for <i>Cedrus deodara</i> . PI: Dr. Santan Barthwal, 2014-17 (3 yrs)									
63	Establishment of advance generation seed orchard of eucalypts-Phase II. PI: Ms. Parveen, 2014-17 (3 yrs)	19.98	0	0	0	0	0	0		Not Approved
64	In vitro selection of salt stress tolerant genotypes of <i>Dalbergia sissoo</i> Roxb. PI: Rajendra Kumar Meena, 2014-18 (4 Years)	31	0.75	3.7	1.2	1.44	4	11.09	1 JRF	Approved with lowest priority.
	Total	118.49	3.2	10.55	4.3	5.88	5.6	29.53	1 SRF, 2 JRF, 1 PA	
	Grand Total	305.778	5.2	14.35	10.08	17.56	8.1	55.29		

		utlay	Sub Hea	ad wise bud	lgetary req 2014-	-	(Rs in lak	hs) for	'n	
		Total Budget O	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Powe	
1	Ongoing Projects	1340.93	16.265	41.215	51.53	41.63	25.82	176.46	3 SRF, 1 RA, 6 JRF, 15 PA, 7 FA, 4 Unskilled	Priority is to be given for completion of ongoing projects. All budget support is to be given to ongoing projects before starting new projects.
2	New Projects	305.778	5.2	14.35	10.08	17.56	8.1	55.29	1 SRF, 5 JRF, 3 PA, 3 FA, 1 Skilled	New projects will be started subject to availability of funds after fulfilling liability of ongoing projects.
	Total	1646.708	21.465	55.565	61.61	59.19	33.92	231.75		

### C. Budget Summary of Ongoing and New Projects:

### Institute of Wood Science & Technology, Bangalore

### A. Ongoing Projects

		utlay	Sub H	ead wise b		budgetary for 2014-1	requireme 5	ent (Rs. In		
Sl. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	ist area I: Managing Forests and Forests l	Products for	r livelihood	l support &	k economi	c growth				
1	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 (3 years)	10.23	0	0.2	0.32	2.04	0	2.56	1 PA and 1 Consult ant	Approved for continuation
2	Evaluation of wood Properties of <i>Melia</i> composita of different ages from southern India for finding suitability for various uses and development of value added products. PI: Dr. S.K. Sharma, 2012-15 (3 years)	6.44	0.05	0.15	0.55	1.02	0	1.77	1 PA	Approved for continuation
3	Variability of growth stresses in <i>Melia</i> composita. PI: Dr. Pankaj Aggarwal, 2013-15 (2 years)	4.67	0.2	0.15	0.25	0.84	0	1.44	1 PA	Approved for continuation
4	Wood modification of <i>Melia composita</i> for improving its dimensional stability and durability. PI: Dr. K.K. Pandey, 2013-15 (2 years)	9.40	0	0.75	0.75	1.87	0	3.37	1 JRF	Approved for continuation
5	Chemical derivatization of a-cellulose into value added products. PI: Dr. Surendra Singh Bisht, 2010-15 (5 years)	15	0.2	2.5	1.5	0	0.5	4.7		Approved for continuation

1	2	3	4	5	6	7	8	9	10	11
6	Evaluation of the performance of steam Volatile Creosote (SVC) as a wood preservative. PI: Dr. S. Mohan, 2010-15 (5 years)	7.905	0.1	0.14	0.29	1.02	0	1.55	1 PA	Approved for continuation
7	Determination of the treatability and durability of imported timbers as per Bureau of Indian Standards. PI: Dr. R. Sundararaj 2012-18 (5 years)	8.5	1	0.15	0.15			1.3		Approved for continuation
8	Development of coccinellids based biocontrol programmes for the management of sandal scales and mealy bugs. Dr. R. Sundarraj, 2011-15 (4 yrs)	11.91	0.25	0.2	0.18	1.752		2.382	1 JRF	Approved for continuation
9	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 (5 years)	20.21	0.06	0.04	0.25	0.47		0.82	1 JRF	Approved for continuation
10	Screening of certain plant extractives for developing eco-friendly wood preservatives. PI: D. Venmalar, 2010-15 (5 years)	5.69	0.37		0.06	0.25	0.06	0.74	1 PA	Approved for continuation
11	Durability & treatability of <i>Melia</i> composita. PI: D. Venmalar, 2012-14 (2 years)	2	0.1	0.2	0.45			0.75		Approved for continuation
12	Growth and yield studies on forest plantations of teak in Karnataka for their sustainable management PI: Dr. V.P. Tiwari, 2010-15 (5 years)	17.51	0.4	0	0.1	1.93	0	2.43	1 JRF	Approved for continuation
13	Nanocellulose filled starch based composites. PI: Ajay Karmarkar, 2013- 15 (2 years)	5.65	0	0.4	0.28	1.87	0.5	3.05	1 JRF	Approved for continuation
14	Liquefaction of Wood and value added products from the liquefied wood, PI: Dr. S.S. Chauhan, 2013-2016 (3 years)	3.35	0	0.4	0.2		1.75	2.35		Approved for continuation
15	Bioassay of plant extractives for antibacterial activity of marine biofilm isolates. M.V. Rao, 2013-2017 (4 yrs),	9.28	1.4	3.5	0.6	0	0	5.5		Approved for continuation

#### Annexure-II A (IWST)

1	2	3	4	5	6	7	8	9	10	11
16	Chemical modification of Eucalyptus	9.5	0.01	0.5	0.05	1.29	0	1.85	1 JRF	Approved for continuation
	hybrid oil and development of fragrant									
	Products. PI: Mr. S.H. Jain, 2013- 2016									
	(3 years)							-		
17	Development of Sandal (Santalum	5	0.8	0	0.9	0	0	1.7		Approved 1 year extension upto
	<i>album</i> ) information system. PI: Mr. V.									March 2015 within approved
	Soundararajan, 2011-14 (3 years)									budget. Institute may provide the
1.0	(Change Request)	16.99	0.00	1.005	1	1.872	1.0	(747	1 IDE	breakup of budget for 2014-15.
18	Biomass, Net Primary Productivity and shoot productivity of seven industrially	16.88	0.88	1.095	1	1.8/2	1.9	6.747	1 JRF	Approved for 2 years extension upto March 2016 within
	important bamboo species in semi arid									approved budget of Rs. 16.88
	and humid tropics of Peninsular India.									lakhs.
	PI: Dr. Syam Viswanath, 2011-14 (3									iunio.
	years) (Change Request)									
	Total	169.125	5.82	10.375	7.88	16.224	4.71	45.009	7 JRF,	
									5 PA, 1	
									Con.	
Thru	st Area II: Biodiversity conservation and	ecological s	security: N	<b>IIL</b>						
Thru	st Area III: Forests and climate change									
19	Growth Variability in Melia dubia	7.2	0.3	0	0	1.02	0	1.32	1 PA	Approved for continuation
	plantations and seed germination. PI: Dr.									
	Arun Kumar, 2011-16 (5 years)									
	Total	7.2	0.3	0	0	1.02	0	1.32	1 PA	
	ist area IV: Forest Genetic Resource Man	0		Î				1		
20	Vegetative propagation & silviculture	17.04	0.25	0.5	2.5	1.02	0	4.27	1 PA	Approved for continuation
	practices for selected tropical timber									
	species for plywood and panel wood									
	industries. PI: Dr. Geeta Joshi, 2011-16									
- 21	(5 years)	107	0.5	2	1 5	1.0	0	6.9	1 IDE	
21	AICP on genetic improvement of <i>M</i> .	107	0.5	3	1.5	1.8	0	6.8	1 JRF	Approved for continuation
	dubia. PI: Dr. Geeta Joshi, 2012-22 (10									
	years)									

#### Annexure-II A (IWST)

1	2	3	4	5	6	7	8	9	10	11
22	Refinement and standardization of	15.48	0.2	1.05	0.05	1.02	0	2.32	1 PA	Approved for continuation
	protocols for in-vitro propagation and									
	genetic fidelity studies of micro									
	propagated plants of two bamboo species									
	Bambusa balcoa and Thyrsostachys									
	oliveri. PI: Dr. Ashutosh Srivastava,									
	2011-15 (4 years)									
	Total	139.52	0.95	4.55	4.05	3.84	0	13.39	1 JRF,	
							-		2 PA	
	Grand Total	315.845	7.07	14.925	11.93	21.084	4.71	59.719		

### **B.** New Projects

		get	Sub He	ead wise b		budgetary for 2014-1		nt (Rs. In	ar	
SI. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
	st area I: Managing Forests and Forests Products		<u> </u>		U				T	
23	Estimation of important wood quality parameters and identification of timber species by rapid and nondestructive technique using Near Infrared Spectroscopy (NIRS). PI: Dr. S. R. Shukla. 2014- 17 (3 years)	20	0.05	0.4	1.53	1.41	8.8	12.19	1 JRF	Approved
24	Formaldehyde emission reduction from panel products. PI: Anil K. Sethy, 2014-2017 (3 years)	5.85	0	0.8	0.42	0.77	0	1.99	1 PA	Approved
25	Suitability of <i>Acacia auriculiformis</i> A. Cunn. ex Benth for truck bodies. PI: Mr. N.C.M. Rajan, 2014-17 (3 years)	6	0	0	0	0	0	0		Dropped on request of IWST
26	Study on microwave assisted direct biodiesel production from <i>P. pinnata</i> seed oil by two phase solvent extraction. PI; Ritesh Kumar, 2014-17 (3 years)	11.00	0.05	1.25	0.80	1.41	0	3.51	1 JRF	Approved
27	Assessment of demand and supply of Bamboo in Karnataka with special emphasis to agarbathi industry. PI: P.R. Triveni, 2014-16 (2 years)	5.5	0	0	0	0	0	0		Dropped on request of IWST
28	Screening of high oleorein yielding forest plants of Western Ghats and standardization of extraction methods. PI: Dr. S. Mohan, 2014-17 (3 years)	16.678	0.7	0.3	0.9	1.404	6	9.304	1 JRF	Approved
29	Documentation of traditional knowledge of protecting marine wooden craft through indigenous methods. PI: M.V. Rao, 2014-16 (2 years)	2.95	0.2	0	0.25	0.77	0	1.22	1 JRF	Approved
	Total	67.978	1	2.75	3.9	5.764	14.8	28.214	4 JRF, 1 PA	

#### Annexure-II B (IWST)

1	2	3	4	5	6	7	8	9	10	11			
Thru	Chrust Area II: Biodiversity conservation and ecological security												
30	Diversity and species assemblage of scarabs (Coleoptera: Scarabaeidae) in forest ecosystems of Central Western Ghats. PI: Y.B. Srinivasa 2014-17 (3 years)	8.96	0	0	0	0	0	0		Not approved			
	Total	8.96	0	0	0	0	0	0					
Thru	ist Area III: Forests and climate change: NIL												
Thru	ist area IV: Forest Genetic Resource Management and Tree Improvement: NIL												
	Grand Total	76.938	1	2.75	3.9	5.764	14.8	28.214					

#### Annexure II C (IWST)

### **C. Budget Summary of Ongoing and New Projects**

		get	Sub Head w	vise breakup of	budgetary r	equirement (R	s. In lakhs)	for 2014-15	ver	
		Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Pov	
1	Ongoing Projects	315.845	7.07	14.925	11.93	21.084	4.71	59.719	8 JRF, 8 PA, 1 Con.	Priority is to be given for completion of ongoing projects. All budget support is to be given to ongoing projects before starting new projects.
2	New Projects	76.938	1	2.75	3.9	5.764	14.8	28.214	4 JRF, 1 PA	New projects will be started subject to availability of funds after fulfilling liability of ongoing projects.
	Total	392.783	8.07	17.675	15.83	26.848	19.51	87.933		

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

### A. Ongoing Projects

		get	Sub He	ad wise br	eakup of bu lakhs) for		equirement	t (Rs. In	er.	
SI. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendatio ns of RPC (2014- 2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	st area I: Managing Forests and Forests Products fo	r livelihood s	upport &	economic	growth					
1	Tree rich biobooster: A Novel approach to synergise frowth and pest management in fast growing industrially important tree species. PI: Dr. S. Murugesan, 2012-15 (3 years)	25.094	0.25	1.5	1.85	1	0	4.6	1 FA	Approved for continuation
2	Introduction and evaluation of fast growing tree species in different agroclimatic zones of Tamil Nadu. PI: Shri. S. Saravanan, 2010-15 (5 years).	17.55	0.5	0.05	1.5	0	0	2.05		Approved for continuation
3	Restoration Ecology and species recovery studies in Tsunami impacted Mangroves of Andaman Islands. PI: Shri. S. Saravanan, 2011-2016 (5 years)	23.89	1	0	0.75	1.93	0	3.68	1 SRF	Approved for continuation
4	Development of models for conversion of plantations into secondary forests in Andaman. PI: Dr. A. Vijayaraghavan, 2011-16 (5 years)	24.09	1.8	0.1	1.35	1.66	0	4.91	1 JRF	Approved for continuation
5	Population structure, regeneration status and pollination ecology of <i>Dalbergia latifolia</i> and <i>D. Sissoides</i> . Dr. K.R. Sasidharan, 2011-16 (5 years)	22.26	1	0.2	0	1.44	0	2.64	1 JRF	Approved for continuation
	Total	112.884	4.55	1.85	5.45	6.03	0	17.88	1 SRF, 2 JRF, 1 FA	
	st Area II: Biodiversity conservation and ecological	security: NI	L							
Thru	st Area III: Forests and climate change									
6	Response of mycorrhizae and microbial symbionts to elevated CO2 in commercially important tree species. PI: Dr. A. Karthikeyan, 2011–15 (5 years)	9.7	0.2	0.5	0.2	0.8	0	1.7	1 FA.	Approved for continuation

#### Annexure-III A (IFGTB)

1	2	3	4	5	6	7	8	9	10	11
7	Assessment of soil organic carbon under different land uses in Tamil Nadu. PI: Dr. A.C. Surya Prabha, 2013-16 (3 years)	33.9	0.5	0.65	0.55	2.57	0	4.27	1 JRF	Approved for continuation
	Total	43.6	0.7	1.15	0.75	3.37	0	5.97	1 JRF, 1 FA	
Thru	st area IV: Forest Genetic Resource Management a			1.10	0.70	0.07	v	0.51	1011,1111	
8	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 (5 Years)	11.24	1.15	0.3	2	0.84	0	4.29	1 FA	Approved for continuation
9	Selection of clones of <i>Acacia auriculiformis</i> with desirable stem form and wood properties for short rotation timber production. PI: Dr. Maheshwar Hegde, 2010-15 (5 Years)	19.22	1.16	0.4	3	1.66	0	6.22	1 JRF	Approved for continuation
10	Genetic Improvement of <i>Gmelina arborea</i> Roxb. through selection and clonal evaluation, PI: A. Mayavel, 2011-16 (5 Years)	22.71	1	0.2	3	1.66	0	5.86	1 JRF	Approved for continuation
11	Selection and Screening of Germplasm of <i>Thespesia populnea</i> for Improving Productivity. 2011-16 (5 Years)	19.82	1	0.16	2	0.84	0	4	1 FA	Approved for continuation
12	Establishment of second generation seed orchards and selection of clones for high productivity in eucalyptus. PI: Dr. V. Sivakumar, 2012-17 (5 years)	39.98	1.7	1	5	2.88	0	10.58	I JRF 1 Unskilled	Approved for continuation
13	Developing breeding populations of teak with broad genetic base for long term genetic improvement. PI: Dr, B. Gurudev Singh, 2012-15 (3 Years)	9.4	0.4	0.25	1.75	0.9	0	3.3	1 FA	Approved for continuation
14	Evaluation of genetic resources of <i>Melia dubia</i> in Tamil Nadu and Kerala for productivity enhancement in tree farming	41.9	0.5	2	2	0.96	0.25	5.71	1 FA	Approved for continuation
15	Incorporating resistance in Eucalyptus to <i>Leptocybe</i> <i>invasa</i> Fisher & La Salle (Hymenoptera: Eulophidae) through expression of insect specific dsRNA. PI: Dr. N. V. Mathish, 2012-16 (4 years)	29.75	0.05	3.75	0.41	1.68	0	5.89	1 SRF	Approved for continuation
16	Genetic diversity assessment for management of Eucalyptus seed orchards	47.6	0.1	5.5	0.25	1.62	0.3	7.77	1 JRF	Approved for continuation
17	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	0.5	0.3	3.4	1.93	0	6.13	1 SRF	Approved for continuation

#### Annexure-III A (IFGTB)

1	2	3	4	5	6	7	8	9	10	11
18	Selection and Evaluation of High yielding clones of <i>Pongamia pinnata</i> . PI: Dr .K. Palanisamy, 2011-15 (4 years)	18.38	0.6	0.8	1.6	1.93	0	4.93	1 SRF	Approved for continuation
19	Exploration, Collection and Evaluation of Forest Genetic Resources and Development of National Gene bank. PI: Dr .K. Palanisamy, 2012-17 (5 yrs)	39.71	1.5	0.8	4.06	1.66	0	8.02	1 JRF	Approved for continuation
20	Productivity studies on commonly cultivated bamboo species in different agro climatic zones of Tamil Nadu	19.11	1	0.15	0.5	1.66	0	3.31	1 JRF	Approved for continuation
21	Germplasm assemblage and Improvement of <i>Leucaena leucocephala</i> for industrial biomass productivity. PI: A. Durai, 2013-18 (5 years)	14.22	0.5	0.2	2.5	0	0	3.2		Approved for continuation
22	Mapping and monitoring of Casuarinas and Eucalyptus Plantations in Tamil Nadu using RS and GIS. PI : R. Vivekanandan, 2013-16 (3 years)	16.94	2	0	0.55	1.93	2	6.48	1 SRF	Approved for continuation
23	Cytogenetic analysis of selected native tree species. PI: Dr. R. Yasodha, 2013-15 (2 years)	11.72	0.8	1	0.1	1.44	0.4	3.74	1 JRF	Approved for continuation
24	Genetic improvement of Casuarina species through second generation orchard. PI: Dr. A. Nicodemus, 2008-14 (6 Years), (Change Request)	43.28	0.75	0.65	2	1.68	0	5.08	1 JRF	Approved 1 year extension within approved budget.
25	Developing clonal technology for raising clonal Plantation of indigenous species <i>Ailanthus</i> <i>excelsa</i> and <i>Ailanthus triphysa</i> in Tamil Nadu and Kerala. PI: D. Rajasugunasekar, 2010-15 (4 years) (Change Request)	18.68	0.4	0.1	1.5	0.84	0	2.84	1 JRF	Approved 6 months extension upto 30 <sup>th</sup> Sept 2014 within approved budget.
26	Development of methods for functional analysis of genes involved in salt tolerance in Eucalyptus. PI: Dr. N.V. Mathish, April 2009; 2009-(2014)2016 (Project requires 2 years extension till March 2016 with no additional budget) ( <b>Change Request</b> )	30.93	0	0.71	1.58	0	0	2.29	1 Skilled, 1 Unskilled	Approved 2 year extension upto March 2016 within approved budget.
	Total	477.74	15.11	18.27	37.2	26.11	2.95	99.64	4 SRF, 9 JRF, 4 FA, 1 Skilled, 2 Unskilled	
	Grand Total	634.224	20.36	21.27	43.4	35.51	2.95	123.49		

### **B.** New Projects

		utlay	Sub He	ead wise b		oudgetary or 2014-15	requiremen	t (Rs. In		
SI. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	st area I: Managing Forests and Forests Products f	or livelihoo	d support &	economic	c growth					
27	Milli compost: An alternate bio compost for forest nurseries and Plantations. PI: Dr. N. Senthil Kumar, 2014-2017 (3 years)	19.152	0.5	1	1.96	1.728	0	5.188	1 JRF	Approved
28	Mapping and biomass estimations of Teak plantations in Tamil Nadu using Remote sensing and Geographical Information System. PI: Dr A. Rajasekaran, 2014 – 17 (3 Years)	21.64	0	0	0	0	0	0		Approved for funding from outside. Ground toothing supported by GIS may be carried out
29	Insect pests of out planted saplings of TCPL (Tree Cultivation in Private Lands) species and their management. PI: Dr. John Prasanth Jacob, 2014- 2017 (3 years)	21.99	3	0.5	1.4	1.73	0	6.63	1 SRF	Approved
30	Development of sustainable livelihood strategies and capacity building for tribes through NTFPs and Medicinal plants in Coimbatore Districts of Tamil Nadu	27.57	0	0	0	0	0	0		Approved for funding from external sources.
	Total	90.35	3.50	1.50	3.36	3.46	0	11.82	1 SRF, 2 JRF	
Thru	st Area II: Biodiversity conservation and ecologica	l security								
31	Establishment of model plantations of teak as subsequent rotation crop for enhanced productivity. PI: Dr. A. C. Surya Prabha, 2014-19 (5 years)	25.52	1	0.65	2	1.73	0	5.38	1 JRF	Approved

#### Annexure-III B (IFGTB)

1	2	3	4	5	6	7	8	9	10	11
32	Biocolourant: Bioprospecting of selected accessions of Red tamarind as natural dye in textile industry. PI: Dr. S. Murugesan, 2014-17 (3 years)	29.54	0.5	1	0.2	1.66	0	3.36	1 JRF	Approved
33	Invasion impacts of <i>Acacia mearnsii</i> on changes soil fertility status of shola forests in the Western Ghats. PI: Dr. A. C. Surya Prabha, 2014-19 (5 yrs)	25.47	1.05	1	0.65	1.73	0	4.43	1 JRF	Approved
34	Development of seed pelleting techniques for commercially important tree species. PI: Ms. R. Anandalakshmi, 2014-17 (3 years)	15	1	1.2	1	1.68	0	4.88	1 JRF	Approved
	Total	95.53	3.55	3.85	3.85	6.8	0	18.05	4 JRF	
Thru	ist Area III: Forests and climate change									
35	Screening tree species for intra species variation in carbon sequestration under elevated Co2. PI: Dr. C. Bhuaneshwaran, 2014-17 (3 years)	9.57	0.1	1	0.75	0.84	0	2.69	1 FA	Approved
	Total	9.57	0.1	1	0.75	0.84	0	2.69	1 FA	
Thru	st area IV: Forest Genetic Resource Management a	nd Tree Imp	rovement							
36	Establishment of Saline Tolerant Casuarina Orchards for Seed Production to Suit Saline Tracts. PI: Dr. R. Anandalakshmi, 2014-18 (4 yrs)	13.56	0.3	0.4	0.7	0.84	0	2.24	1 FA	Approved
37	Assessment of <i>Calophyllum inophyllum</i> clones for oil yield and site specificity. PI: Dr. R. Anandalakshmi, 2014-19 (5 years)	20.84	0.75	0.2	0.5	1.66	1.5	4.61	1 JRF	Approved
38	Genetic improvement of <i>Switienia macrophylla</i> King. for higher productivity. PI: Dr. M V Durai, 2014-18 (4 years)	20.39	0.7	0.4	0.7	1.44	2.8	6.04	1 JRF	Approved
39	Evaluation and Popularization of <i>Neolamarckia</i> <i>cadamba</i> (Roxb.) Miq in Tamil Nadu and Kerala- Phase II. PI Dr A. Vijayaraghavan, 2014-20 (6 yrs)	33.71	0.55	0.2	1.7	1.66	0	4.11	1 JRF	Approved
40	Biology, ecology and management of the Casuarina seed pests. PI: Dr. A. Balu, 2014-18 (4 years)	13.68	0.55	0.2	0.5	1.66	0	2.91	1 JRF	Approved
41	Evaluation of inter-specific hybrid clones of Eucalyptus for productivity and wood traits. PI: Dr. D. Rajasugnusekar, 2014-17 (3 years)	10.58	0.5	0.4	1	0.96	0	2.86	1 FA	Approved

#### Annexure-III B (IFGTB)

1	2	3	4	5	6	7	8	9	10	11
42	Transcriptome Evaluation of <i>Hyblaea puera</i> <i>Cramer</i> (Lepidoptera: Hyblaeidae) and <i>Eutectona</i> <i>machaeralis</i> Walker (Lepidoptera: Pyralidae) for development of RNAi-based biopesticides. PI: Dr. N.V. Mathish, 2014-18 (4 years)	36.41	0	0	0	0	0	0		Explore funding from DBT.
43	Characterization of DNA Barcoding genes in Pterocarpus spps. PI: Dr. A. Shanthi, Sc-C, 2014- 17 (3years).	21.41	0.7	2	0.8	1.44	5	9.94	1 JRF	Approved
44	Selection and screening of germplasm of <i>Acacia</i> <i>nilotica</i> L. to improve productivity in Tamil Nadu. PI: Dr. K. Panneer Salvem, 2014-19 (5 years)	38.97	1	0	1	2.62	0.9	5.52	1FA, 1 JRF	Approved
45	Production of multi-parent intercross populations of eucalypts and transcript profiling for salinity tolerance. PI: Dr. R Yasodha, 2014-17 (3 years)	32.36	0.8	1.5	2.5	0.84	0	5.64	1 FA	Approved
46	Isolation and characterization of Cinnomoyl CoA Reductase gene in <i>Casuarina equisetifolia</i> . PI: Dr. A. Shanthi, Sc-C, 2014-2017 (3years)	18.71	0.1	3	0.55	1.44	2	7.09	1JRF	Approved
47	Studies on heart-rot and root rot diseases of <i>Phyllodinous Acacias</i> . PI: Dr. V. Mohan, 2014-18 (4 years)	26.33	0.5	0.5	0.6	1.66	0	3.26	1JRF	Approved
48	Documentation of existing forest genetic resources in India and preparation of a national register of FGR. PI: Dr. M. Maria Dominic Savio, 2014-17 (3 years)	101.74	18	0	19.25	1.66	0	38.91	1JRF	Approved
49	Strategies for induction of early flowering in Eucalyptus. PI: Dr. V. K. W. Bachpai, 2014-18 (4 years)	15.31	0.8	0.5	1.15	1.41	0	3.86	1 FA, 1 unskilled	Approved
	Total	404	25.25	9.3	30.95	19.29	12.2	96.99	9 JRF, 5 FA, 1 Unskilled	
	Grand Total	599.452	32.4	15.65	38.91	30.388	12.2	129.548		

	Research Projects	Total Budget outlay	Sub Hea	d wise brea		getary requir 014-15	rement (Rs. II	er		
Sl. No.			Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	
1	Ongoing Projects	634.224	20.36	21.27	43.4	35.51	2.95	123.49	5 SRF, 12 JRF, 6 FA, 1 Skilled, 2 Unskilled	Priority is to be given for completion of ongoing projects. All budget support is to be given to ongoing projects before starting new projects.
2	New Projects	599.452	32.4	15.65	38.91	30.388	12.2	129.548	1 SRF, 15 JRF, 1 FA, 5 Skilled, 1 Unskilled	New projects will be started subject to availability of funds after fulfilling liability of ongoing projects.
	Total	1233.676	52.76	36.92	82.31	65.898	15.15	253.038		

### Institute of Forest Productivity, Ranchi

### A. Ongoing Projects

		Total Budget Outlay	Sub H	ead wise b	-	budgetary for 2014-1	•.				
SI. No.	Project title/ PI/ Duration		Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)	
1	2	3	4	5	6	7	8	9	10	11	
Thrust area I: Managing Forests and Forests Products for livelihood support & economic growth											
1	Introduction of selected genotypes of Karanj,	14.995	0.4	1.35	0.8	1.56	0	4.11	1 PA	Approved for continuation	
	Kusum and Bamboo as tree components in										
	Agroforestry models in lateritic belt of eastern										
	India. PI: Dr. Animesh Sinha, 2011-15 (4 yrs)										
Total		14.995	0.4	1.35	0.8	1.56	0	4.11	1 PA		
	st Area II: Biodiversity conservation and ecolo	0			T						
2	Development of agro- techniques for organic cultivation of <i>Tribulus terrestris</i> L. and <i>Cissus</i> <i>quadrangularis</i> L medicinal plants extensively used in traditional system of Medicine (Ayurveda, Unani and Chinese). PI: Dr. M. Ray, 2013-16 (3 yrs)	10.18	0.77	1.85	1	0.78	0	4.4	1 FA	Approved for continuation	
	Total	10.18	0.77	1.85	1	0.78	0	4.4	1 FA		
	st Area III: Forests and climate change: NIL										
Thru	st area IV: Forest Genetic Resource Managem			ement							
3	Evaluation of Dalbergia sissoo Roxb Clones	29.4	0.5	1	1	3.2	0	5.7	1 SRF	Approved for continuation	
	for suitability in large scale clonal forestry in								2 FA		
	Gangetic plains and Chotanagpur Plateau.										
	PI:Dr. Sanjay Singh, 2011-16 (3 yrs)	4.0			0.4			2.10	1.5.4		
4	Studies on pollarding and propagation in	10	0.2	0.75	0.4	0.78	0	2.13	1 PA	Approved for continuation	
	Kusum ( <i>S. oleosa</i> ) for lac cultivation.										
	PI: Dr. Animesh Sinha, 2011-15 (4 yrs)										

#### Annexure-IV A (IFP)

1	2	3	4	5	6	7	8	9	10	11
5	Tree Borne Oil seeds (TBOs) in community lands for Improved Livelihoods of Vulnerable Groups of Jharkhand. PI: Dr. Animesh Sinha, 2012-17 (5 yrs)	23.34	0.6	0.65	2	0.9	2	6.15	1 FA	Approved for continuation
6	Collection, conservation and evaluation of <i>Melia dubia</i> germplasm from North Bengal, Odisha Hills and other parts of India for identification and release of superior clones. PI: Sh. Aditya Kumar, 2013-18 (5 yrs)	67.5	2.5	2.7	2	2.568	19	28.768	1 JRF 1 FA	Approved for continuation
7	Assessment of variability and genetic fingerprinting in <i>Pongamia pinnata</i> (L.) Pierre using microsatellite markers. PI: Dr. Sanjay Singh, 2010-14 (4 years) ( <b>Change</b> <b>Request</b> )	26.09	0	0.41	0.12	0.96	0	1.49	1 JRF	Approved 1 year extension upto March 2015 within approved budget.
	Total	132.99	3.8	5.51	5.52	8.408	21	44.238	1 SRF, 2 JRF, 4 FA, 1 PA	
	Grand Total	158.165	4.97	8.71	7.32	10.748	21	52.748		

### **B.** New Projects

		utlay	Sub H	ead wise h		f budgetar for 2014-1	y requirem 15	ent (Rs. In	L	
Sl. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
	st area I: Managing Forests and Forests Produ			-	onomic gr					
8	Collection and screening of superior lac insect species and their strains for better lac production. PI: Dr. Arvind Kumar, SC–C, 2014 – 18 (4 yrs)	21.092	0	0	0	0	0	0		Modify and revise the project. May be submitted next RPC after revision.
9	Development of Flemingia based agroforestry model for poverty alleviation in Jharkhand. PI - Dr. A. K. Pandey, 2014 – 18 (4 yrs)	32.1	1.1	3	2.25	1.73	3	11.08	1 JRF	Approved for Rs. 15.00 lakhs only. Institute may submit the revised budget outlay and sub-head wise requirement for 2014-15.
10	Studies on intercropping of medicinal and aromatic plants for improving the livelihood of People. PI: Dr. M. Ray, 2014 – 19 (3 yrs)	19.95	0	0	0	0	0	0		Funding from National Medicinal Plant Board may be explored.
	Total	73.142	1.1	3	2.25	1.73	3	11.08	1 JRF	
Thru	st Area II: Biodiversity conservation and ecol	ogical secur	ity: NIL							
	st Area III: Forests and climate change: NIL									
Thru	st area IV: Forest Genetic Resource Managem				1	r				
11	Single Nucleotide Polymorphism (SNP) marker discovery to resolve <i>Bambusa tulda</i> - longispiculata-nutans-teres complex in bamboo taxonomy. PI – Dr. Sanjay Singh, 2014 – 18 (4 yrs)	40.91	0.9	2.55	0.5	1.76	18	23.71	1 JRF	Approved. Budget reduced to Rs. 29.43 lakhs. Equipment cost reduced to Rs. 12.00 lakhs. Submit revised budget requirement subhead wise for 2014-15
12	Chemical and genetic diversity of <i>Moringa</i> <i>oleifera</i> for value addition in eastern India as food supplement. PI – Sh. Pankaj Singh, RO Grade– I, 2014–17 (3 years)	14.42	0.8	1.95	0.75	0.84	2	6.34	1 FA	Approved with budget of Rs. 9.90 lakhs. Submit revised budget outlay and sub-head wise requirement 2014-15

#### Annexure-IV B (IFP)

1	2	3	4	5	6	7	8	9	10	11
13	Genetic evaluation and improvement of	20.14	0.75	1.7	1	1.296	5	9.746	1 JRF	Approved with budget of Rs.
	Flemingia semialata and Flemingia									12.62 lakhs. IFP, Ranchi to
	macrophylla used for lac cultivation in									involve other Institutes for
	Jharkhand. PI: Sh. Aditya Kumar, 2014-17 (3									material collection. Submit
	Years)									revised budget outlay and
										sub-head wise requirement
										2014-15
14	Survey and selection for essential oil content	13.27	0	0	0	0	0	0		Not Approved
	of Acorus calamus Linn . PI: Sh. Sanjeev									
	Kumar, Sc-C; 2014 – 18 (4 years)									
	Total	88.74	2.45	6.2	2.25	3.896	25	39.796	2 JRF, 1	
									FA	
	Grand Total	161.882	3.55	9.2	4.5	5.626	28	50.876		

### Annexure- IV C (IFP)

# **C. Budget Summary of Ongoing and New Projects**

		et	Sub Hea	d wise bre		lgetary requ 2014-15	uirement (R	Rs. In lakhs)	wer	
SI. No.	Research Projects	Total Budget outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Pow	
1	<b>Ongoing Projects</b>	158.165	4.97	8.71	7.32	10.748	21	52.748	1 SRF, 2	Priority is to be given for completion of
									JRF, 2	ongoing projects. All budget support is to be
									PA, 5 FA	given to ongoing projects before starting new projects.
2	New Projects	161.882	3.55	9.2	4.5	5.626	28	50.876	<b>3 JRF, 1</b>	New projects will be started subject to
									FA	availability of funds after fulfilling liability
										of ongoing projects.
	Total	320.047	8.52	17.91	11.82	16.374	49	103.624		

## **Tropical Forest Research Institute, Jabalpur**

## A. Ongoing Projects

		Dutlay	Sub Hea		eakup of b n lakhs) fo		y requiremo 5	ent (Rs.	ıa	
Sl. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	st area I: Managing Forests and Forests Products for						1 1			
1	Development of lac based agroforestry (Silvi-Agri- Lac) system.163/TFRI/2010/Agro – 2(17), PI: Dr. Nanita Berry, 2010-15 (5 years)	7	0.12	0.05	1.2	0.84	0	2.21	1 FA	Approved for continuation
2	Status of sal heartwood borer, <i>Hoplocerambyx</i> spinicornis Newman and its management. 171/TFRI/2011/Ento 2 (28). PI: Dr. N. Roy Choudhury, 2011-16 (5 years)	14.02	0.40	0.30	0.40	0	0	1.10		Approved for continuation
3	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 (3 years)	6.57	0.4	0.1	0.1	0.84	0	1.44	1FA	Approved for continuation
4	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 (3 years)	7.52	0.25	0.2	1	0.84	0	2.29	1 FA	Approved for continuation
5	Evaluation of phyto-polymers as eco-frindly bioadhesives. 191/TFRI/2012/NWFP 3 (35), PI: Smt. Neelu Singh, 2012-15 (3 years)	9.91	0.17	0	1.59	1.44	0	3.2	1 JRF	Approved for continuation
6	Standardization of processing and storage techniques of Malkangni ( <i>Celastrus panuculatis</i> ), Baheda ( <i>Terminalia belerica</i> ) & Baividang ( <i>Embelia tsjeriam</i> - cottam) fruits/seeds.206/TFRI/2013/NWFP-1 (37). PI: Shri Hari Om Saxena, 2013-16 (3 years)	6.37	0.35	0.6	0.25	0.84	0	2.04	1 FA	Approved for continuation

#### Annexure-V A (TFRI)

1	2	3	4	5	6	7	8	9	10	11
7	Studies on the causes of Gmelina mortality in plantation of Madhya Pradesh, Chhattisgarh and its integrated management.203/TFRI/2013/ Patho. – 1 (21), PI: Dr. V. S. Dadwal, 2013-16 (3 years)	2.8	0.5	0	0.3	0	0	0.8		Approved for continuation
8	Studies on insect biocontrol agent, <i>Chrysoperla</i> <i>carnea</i> and its potentiality as insect predator.201/ TFRI/2013/Ento 1(34), PI: Shri Subhash Chandra Sonkar, 2013-16 (3 years)	6.37	0.3	0.2	0.7	0.84	0	2.04	1 FA	Approved for continuation
9	Chemo-profiling of some Dasmoola species ( <i>Uraria picta, Solanum indicum</i> and <i>Solanum xanthocarpum</i> ) in Madhya Pradesh. PI: Mr. Hari Om Saxena, 2011-14 (3 years) ( <b>Change Request</b> )	5	0.6	0.2	0.1	0.84	0	1.74	1FA	Approved 1 year extension upto March 2015 within approved budget.
10	Evaluation of non edible oilseeds for development of surfactants and their utilization in pest management. PI: Mrs. Neelu Singh, 2011-14 (3 years) ( <b>Change</b> <b>Request</b> )	14.7	0	0	0.5	1.44	0	1.94	1 JRF	Approved 1 year extension upto March 2015 within approved budget.
11	Evaluation of <i>Schleichera oleosa</i> (Kusum) fruits for their nutritional value and development of value added products for economic development of local people. PI: Mr. Hari Om Saxena, 2012-15 (3 years) (Change Request)	5.26	0.2	0.35	0.63	0	0	1.18		Request for FA not approved
12	Evaluation of <i>Madhuca indica</i> based silvi-agri system in arid and semi-arid zones of India. PI: Dr. Nanita Berry, Sci-D, 2012-17 (5 years) (Change Request)	11.85	0	0	0	0	0	0		Approved for closer of the project Submit the project closer report.
	Total	97.37	3.29	2.00	6.77	7.92	0	19.98	2 JRF, 7 FA	
Thru	st Area II: Biodiversity conservation and ecological se	ecurity								
13	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> . 192/TFRI/2012/Silvi. – 1 (15) PI: Dr. Maitreyee Kundu, 2012-16 (4 years)	8.46	0.4	0.1	1	0.84	0	2.34	1 FA	Approved for continuation
	Total	8.46	0.4	0.1	1	0.84	0	2.34	1 FA	
Thru	st Area III: Forests and climate change: NIL									

1	2	3	4	5	6	7	8	9	10	11
Thru	st area IV: Forest Genetic Resource Management and	Tree Impr	ovement							
	<ul> <li>"All India Coordinated programme for genetic improvement of Teak". as four sub projects:</li> <li>Sub project: - (i) Selection of plus trees, raising their progeny trials and establishing germplasm bank.</li> <li>(TFRI, Jabalpur)</li> <li>Sub project: - (ii) Development of management practices of teak seed production areas, seedling seed orchards and clonal seed orchards. (TFRI &amp; SFRI, Jabalpur)</li> <li>Sub project: - (iii) Production of transgenic teak tolerant to defoliating pests. (TFRI, Jabalpur)</li> <li>Sub project: - (iv) Studies on population structure, linkage disequilibrium and marker-trait association mapping of teak. (FRI &amp; TFRI, Jabalpur)</li> <li>193/TFRI/2012/Gen 2 (26)</li> <li>i) Dr. Yogeshwar Mishra / Genetics</li> <li>ii) Ms. Trisa Dominic / Genetics</li> <li>iv) Dr. S.A. Ansari / Genetics (managed by him from Ranchi)</li> </ul>	711.31	9	7	9.1	3.36	5	33.46	1 JRF, 2 FA	Approved for continuation
15	Collection of germplasm of <i>Madhuca indica</i> J. F. Gmel for identification of best sources in Chhattisgarh through phytochemical Evaluation. 194/TFRI /2012/Gen 3 (27), PI: Dr. Fatima Shirin, 2012–15 (3 years)	11.04	0.42	0.75	0.85	1.68	0	3.7	1 JRF	Approved for continuation
16	Genetic improvement of <i>Dalbergia latifolia</i> Roxb. through selection and evaluation of germplasm in central India.									Approved for continuation
	Sub-project 1:- Survey and selection of plus trees and establishment of progeny trials of <i>Dalbergia latifolia</i> .	13.56	1.5	0	1.5	1.44	0	4.44	1 JRF	
	Sub-project 2:- To refine existing micro-propagation protocols of <i>Dalbergia latifolia</i> for production of improved planting stock. 204/TFRI/2013/Gen1 (28), PI: Dr. Fatima Shirin, 2013-16 (3 years)	11.81	0.55	1	1	1.44	0	3.99	1 JRF	

#### Annexure-V A (TFRI)

1	2	3	4	5	6	7	8	9	10	11
17	Collection and morpho-molecular characterization of	11.12	0.7	1.5	0.65	0.84	0	3.69	1 FA	Approved for continuation
	critically endangered Litsea glutinosa germplasm from									
	Madhya Pradesh and Chhattisgarh. 205/TFRI/									
	2013/Gen 2 (29), PI: Shri Naseer Mohammad, 2013-									
	16 (3 years)									
18	Studies on effect of introduction of honey bee on seed	7.52	0.6	0.1	0.9	0.84	0	2.44	1 FA	Approved for continuation
	production in teak seed orchards. 202/TFRI/									
	2013/Ento 2 (35), PI: Dr. N. Kulkarni, 2013-16 (3									
	years)									
19	Studies on assessment of genetic diversity and	13.41	0	0.3	0.4	1.68	0	2.38	1JRF	Approved for 1 year
	structure of Boswellia serrata Roxb. populations									extension upto March 2015
	through RAPD and ISSR molecular markers. PI: Dr.									within approved budget.
	Pramod Kumar, 2011-14 (3 years) (Change Request)									
	Total	779.77	12.77	10.65	14.4	11.28	5	54.1	5 JRF, 4	
									FA	
	Grand Total	885.6	16.46	12.75	22.17	20.04	5	76.42		

### **B.** New Projects

		get	Sub Hea		eakup of b n lakhs) fo		y requirem 5	ent (Rs.	er	
Sl. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
	st area I: Managing Forests and Forests Products for				-					
20	Field evaluation of biopesticides, ivermectin and spinosad against major insect larval defoliators. PI: Dr. N. Roychoudhury, 2014-17 (3 years)	8.41	0.2	0.1	0.8	1.44	0	2.54	1 FA	Approved. FA is approved in place of JRF. Submit revised budget outlay and and requirement for 2014-15.
21	Insect pests of nutraceutically important mushrooms from the forests of central India and their integrated management. PI Dr. Nitin Kulkarni, 2014-17(3 years)	11.86	0	0	0	0	0	0		Not Approved
22	Development of fast food products enriched with <i>Moringa oleifera</i> (Drumstick) leaves and skill up- gradation training to rural women. PI Dr. Vishakha Kumbhare, 2014-17 (3 years)	6	0.3	0.4	0.62	0	0.75	2.07		Approved
23	Improving Livelihoods through Silvi- Medicinal system in the established mixed plantations under FDA in Jabalpur circle. PI Dr. Nanita Berry, 2014-17 (3 years)	13.02	0	0	0	0	0	0		Approved for funding from National Medicinal Plant Board.
24	Introduction trial of different Pterocarpus species with local species in Satpura region of Madhya Pradesh. PI: ND. Khobragade, 2014-19 (5 years)	9.63	0	0	0	0	0	0		Not Approved
25	Comparative analysis of kairomones in different girth classes of sal and its evaluation against sal heart wood borer. Dr. M. Deepa, 2014-17 (3 yrs)	8.32	0	0	0	0	0	0		Not Approved
	Total	57.24	0.5	0.5	1.42	1.44	0.75	4.61	2 FA	

1	2	3	4	5	6	7	8	9	10	11
Thr	st Area II: Biodiversity conservation and ecological	-		0	Ū	,	0	,	10	
26	Ecological assessment and socio-economic impacts of reclaimed coal mine overburden dumps by Western Coalfields Limited at Pench Area, (Chhindwara, M.P.). PI: Mamta Meshram, 2014-17 (3 years)	5.66	0.35	0.25	0.5	0.63	0.6	2.33	1 FA	Approved
27	Ecological and economical assessment of Pachmarhi (M.P.) to study the impact of developmental activities and tourism on its environment. PI Dr. Avinash Jain, 2014-18 (4 yrs)	15.24	0	0	0	0	0	0		Approved for external funding from Tourism Industry
28	Documentation of biodiversity of forest fungi of Central India. PI Dr. R.K. Verma, 2014-17 (3 years)	10.98	0.5	0.15	0.45	2.28	0	3.38	1 JRF, 1 FA	Approved
29	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>Diospyros melanoxylon</i> and <i>Memecylon edule</i> for effective collection and seed storage. PI: Dr. Maitreyee Kundu, 2014- 18 (4 years)	8.86	0.6	0.4	0.55	0.84	0	2.39	1 FA	Approved. Species Diospyros melanoxylon and Memecylon edule are replaced with Ougeinia oojeinensis and Anogeissus acuminate.
30	Biodiversity, Regeneration and life-history feedback of forest communities in response to canopy openings under selection cum improvement felling system. PI: Dr. Sanjay Singh, 2014-19 (5 years)	16.92	1.2	1	0.9	1.44	0	4.54	1 JRF	Approved
	Total	57.66	2.65	1.8	2.4	5.19	0.6	12.64	2 JRF, 3 FA	
	ist Area III: Forests and climate change: NIL									
-	ist area IV: Forest Genetic Resource Management an		rovement	1	r					
31	Die back and mortality of teak in central India. PI: Dr. R. K. Verma, 2014-17 (3 years)	10.53	0	0	0	0	0	0		Approved for funding from M.P. Forest Department.
32	Characterization of HpNPV proteins for the development of control measures against teak pests. PI: Mrs. Tresa Hamalton, 2014-18 (4 years)	29.46	0	0	0	0	0	0		Approved for DBT funding
33	Population genetic analysis of <i>Sterculia urens</i> Roxb. through morphological and molecular markers. PI: Dr. Naseer Mohammad, 2014-19 (5 years)	15.96	0.7	0.3	0.5	0.84	0.2	2.54	1 FA	Approved

#### Annexure-V B (TFRI)

1	2	3	4	5	6	7	8	9	10	11
34	Studies on improving adventitious rooting in <i>Dalbergia latifolia</i> and field performance of its rooted plantlets. PI: Dr. Pramod Kumar, 2014-19 (5 years)	11.8	0.3	0.5	0.7	0.84	0	2.34	1 FA	Approved
	Total	67.75	1	0.8	1.2	1.68	0.2	4.88	2 FA	
	Grand Total	182.7	4.15	3.1	5.02	8.31	1.55	22.13		

#### Annexure-V C (TFRI)

## C. Budget Summary of Ongoing and New Projects:

		ţ	Sub Head	wise break		tary require 4-15	ment (Rs. In la	khs) for	er	
Sl. No.	Research Projects	Total Budget outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	
1	Ongoing Projects	885.6	16.46	12.75	22.17	20.04	5	76.42	7 JRF, 12 FA	Priority is to be given for completion of ongoing projects. All budget support is to be given to ongoing projects before starting new projects.
2	New Projects	182.65	4.15	3.1	5.02	8.31	1.55	22.13	2 JRF, 7 FA	New projects will be started subject to availability of funds after fulfilling liability of ongoing projects.
	Total	1068.25	20.61	15.85	27.19	28.35	6.55	98.55		

### Arid Forest Research Institute, Jodhpur

## A. Ongoing Projects

		et	Sub He	ead wise br		udgetary i or 2014-15	requirement	(Rs. In	н	
Sl. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014- 2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	ist area I: Managing Forests and Fo		ucts for live			8				
1	Coordinated project on Integrated management of khejri mortality for socio-economic upliftment in Rajasthan. PI: Dr. S.I. Ahmed, 2010-15 (5 years)	99.72	1.6	2.2	5.25	8.83	1.1	18.98	2 JRF, 6 FA	Approved for continuation
2	Enhancing fodder productivity through silvipastoral systems on degraded land of India. PI: Dr. R. Arya, 2012-17 (5 years)	20.5	0.45	1	1.7	0.84	-	3.99	1 FA	Approved for continuation
3	Tapping the potential of some selected indigenous lesser known wild edible plants for food and nutrition in arid and semi arid region. PI: Dr. Mala Rathore, 2011-16 (5 years)	18.2	0.25	0.75	0.5	2.02	0.15	3.67	1 JRF	Approved for continuation
4	Quantification value addition of NTFP and improved agricultural productivity to enhance livelihood opportunity in tribal belt of Sirohi District of Rajasthan. PI: Smt. Sangeeta Tripathi, 2012-17 (5 yrs)	14.83	0.7	0.45	1	0.84	0.3	3.29	1 FA	Approved for continuation
5	Managing Resources to enhance productivity of agroforestry system in Dry Areas of Rajasthan. PI: Dr. Bilas Singh, 2012-16 (4 years)	20.21	0.15	0.5	0.75	0.84	-	2.24	1 FA	Approved for continuation

#### Annexure-VI A (AFRI)

1	2	3	4	5	6	7	8	9	10	11
6	Innovative approaches for	4	-	0.16	0.25	0.84	-	1.25	1 FA	Approved 1 year
	augmentation of composting and									extension along
	biofertilizer production in hot arid									with 1 FA upto
	regions. PI: Dr.K. K. Srivastava,									March 2015 within
	2010-14 (4 years) (Change									approved budget.
	Request)									
7	Evaluation of antifungal potential	9	0.04	1	0.12	0.84	-	2	1 FA	Approved 1 year
	and identification of broad									extension along
	spectrum antifungal compound									with 1 FA upto
	from selected tree/shrubs/weeds of									March 2015 within
	Indian arid region. PI: Smt.									approved budget.
	Bhawana Sharma, 2009-14 (5									
	years)(Change Request)									
	Total	186.46	3.19	6.06	9.57	15.05	1.55	35.42	3 JRF, 11 FA	
Thru	ist Area II: Biodiversity conservation	on and ecol	logical secu	ırity						
8	Impact of Prosopis juliflora on	8	0.25	0.15	1.1	-	-	1.5		Approved 1 year
	biodiversity, rehabilitation of									extension upto
	degraded community lands and as									March 2015 within
	a source of livelihood for people in									approved budget.
	Rajasthan State. PI: Smt. Sema									
	Kumar, 2010-14 (4 years)									
	(Change Request)									
	Total	8	0.25	0.15	1.1			1.5		
Thru	ist Area III: Forests and climate cha	nge								
9	Carbon stock and soil	22.05	0.1	0	2	1.73	0	3.83	1 JRF	Approved for
	classification mapping for									continuation
	Rajasthan Forest. PI: N. Bala,									
	2012-16 (4 years)									
	Total	22.05	0.1	0	2	1.73	0	3.83	1 JRF	
Thru	st area IV: Forest Genetic Resource	e Managen	nent and T	ree Improv	vement	•	-			•
10	Study of salt tolerance through	22	0	2	0	2.016	0	4.016	1 JRF	Approved for
	gene expression pattern analysis.									continuation
	PI: Dr. Tarun Kant, 2010-15 (5									
	years)									
						1				

#### Annexure-VI A (AFRI)

1	2	3	4	5	6	7	8	9	10	11
11	Development of technologies for multiplication of economically important desert plant – Capparis deciduas. PI: Dr. Sarita Arya, 2010-15 (5 years)	14.72	0.25	0.5	0.25	1.68	1	3.68	1 JRF	Approved for continuation
12	Refinement of modern nursery practices for raising quality seedlings of selected important forest tree species and arid and semi arid areas. PI: Dr.N.K. Bohra, 2011-16 (5 years)	28.66	0.3	0.5	1.8	0.84	0.56	4	1 FA	Approved for continuation
13	All India coordinated project for Genetic Improvement of <i>Melia</i> <i>composita</i> . PI: Shri P.H. Chawahhan, 2014-23 (5 years)	86	0.7	0	3	0.84	0	4.54	1 FA	Approved for continuation
14	Investigations on genetic variation and inheritance of Western Indian teak ( <i>Tectona grandis</i> L.f). PI: Shri P.H. Chawahan, 2009-14 (5 years) ( <b>Change Request</b> )	20.7	0.5	0.1	2	1.73	-	4.33	1 JRF	Approved 1 year extension upto March 2015 within approved budget. Objective No.3 of the project dropped. May submit follow up project subsequently.
15	Regional project-Assessment of variability, improvement and refinement of cloning techniques of <i>Tecomella undulata</i> (sm.) Seem. PI: Ms. Deesha Meena. 2012-17 (5 years) (Change Request)	39	0.35	2	0.7	-	-	3.05	1 JRF, 1 FA	Stick to approved proposal.
16	Development of tissue culture technology for multiplication of economically important desert plant- <i>Salvadora persica</i> . PI: Dr. I.D. Arya, 2009-14 (5 years) ( <b>Change Request</b> )	9.6	0.5	0.5	0.5	1.68	-	3.18	1 JRF	Approved as proposed upto March 2015 within approved budget.

#### Annexure-VI A (AFRI)

Aza Dr. and year i.e.	2	3	4	5	6	7	8	9	10	11
	creening of high oil and zadirachtin in Neem. PI: pr. U.K. Tomar, (2012-13 initially nd XIV RPC had granted two ears extension beyond 2012-13 e. up to 2014-15.) (Change (equest)	9.08	0.65	-	0.5	-	-	1.15	10	Recommended within approved budget. The current year requirement of Rs. 0.56 lakhs is not matching with the sub-heads total
	Total Grand Total	229.76 446.27	3.25 6.79	5.6	8.75 21.42	8.786 25.566	1.56	27.946 68.696	5 JRF, 3 FA	submitted by Institute which may be corrected.

### **B.** New Projects

		get	Sub He	ad wise br		udgetary i or 2014-15	requirement	(Rs. In	L	
Sl. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014- 2015)
1	2	3	4	5	6	7	8	9	10	11
<u>Thru</u> 18	<b>Integrated Process and Forests and Fo</b> Integrated pest and disease management (IPDM) of important tree species in nurseries of Rajasthan. PI: Smt. Seema Kumar, 2014-19 (5 years)	rests Prod 20.16	0.5	elihood suj 0.5	oport & eco 0.75	2.4	1.5	5.65	1 JRF 1 RA	Approved
19	Selection of efficient AM fungi, PSBs and Azospirillum for productivity enhancement of <i>Dendrocalamus strictus &amp;</i> <i>Bambusa bambos</i> , PI: Dr. K.K. Srivastava, 2014-16 (2 years)	15.85	0.75	0.5	0.4	1.7	2.05	5.4	1 JRF	Approved
20	Development of germination and nursery practices for raising quality seedlings of selected important forest tree species of arid and semi arid areas. PI: Dr. N.K. Bohra, 2014-18 (4 yrs)	20	0	0	0	0	0	0		Not Approved
21	Rehabilitation of limestone mine over-burden in Jaisalmer area of Rajasthan. PI: Shri S.R. Baloch 2014-20 (6 years)	34.34	0	0	0	0	0	0		Request for internal funding not approved. Explore external funding.
22	Study of insect-pests and mycoflora of selected medicinal plant produce under storage condition and their ecofriendly management. PI: Dr. Shiwani Bhatnagar, 2014-17 (3 years)	14.84	0	0	0	0	0	0		Approved for funding from National Medicinal Plant Board.

#### Annexure-VI B (AFRI)

1	2	3	4	5	6	7	8	9	10	11
23	Rehabilitation of salt affected soil with amendments of biofertilizer (AM Fungi). PI: Smt. Bhawana Sharma, 2014-19 (5 years)	24.25	0.5	1	0.6	1.68	0.5	4.28	1 FA	Approved. Time period reduced to 3 years from 2014-17. Instead of JRF, FA is approved. Equipment is not approved. The budget may be revisited to Rs. 10.00 lakhs. Institute to submit the revised budget outlay and requirement for 2014-15.
	Total	129.44	1.75	2	1.75	5.78	4.05	15.33	1 RA, 2 JRF, 1 FA	
Thru	ust Area II: Biodiversity conservation	on and ecol	logical secu	irity			•		· · · · · ·	
24	Survey, evaluation and management of important insect- pests and diseases of <i>Anogeissus</i> <i>pendula</i> . PI: Dr. Shiwani Bhatnagar, 2014-17(3 years)	18.81	0	0	0	0	0	0		Not Approved
25	Diversity of pollinators and their role in fruit/ pod production of <i>Acacia senegal, Capparis decidua</i> and <i>Prosopis cineraria</i> (tricuta) in Rajasthan. PI: Dr. Shiwani Bhatnagar, 2014-19 (5 years)	19.53	1	1	1.7	1.73	2.95	8.38	1JRF	Approved
	Total	38.34	1	1	1.7	1.73	2.95	8.38	1 JRF	
	ust Area III: Forests and climate cha						-	-		
26	Impact of climate change on Plant diversity and their Adaptations in different agro climatic zones of Rajasthan. PI: Shri M.K. Singh, 2014-19 (5 years)	26.94	2.06	0	0.75	2.57	1.4	6.78		Baseline study. Change the title appropriately. Approved for budget to 20 lakhs. Submit revise budget requirement for 2014-15.

#### Annexure-VI B (AFRI)

1	2	3	4	5	6	7	8	9	10	11
27	Effects of elevated CO2 and	9.77	0	0	0	0	0	0		Not Approved
	Temperature on seed quality of									
	important forestry species under									
	storage. PI: Dr. D. K. Mishra,									
	2014-18 (4 years)									
	Total	36.71	2.06	0	0.75	2.57	1.4	6.78		
Thru	ist area IV: Forest Genetic Resource	Managen	nent and Ti	ree Improv	vement					
28	Identification of Juvenility	31.91	0	0	0	0	0	0		Not Approved.
	Markers to Improve Rooting									Project deferred for
	Potential of some Important Tree									1 year for
	Species of Rajasthan & Gujarat.									modification and to
	PI: Dr. Shivesh Kumar Rajput,									be submitted in next
	2014-18 (4 years)									RPC
29	Screening tree species for their	60.7	0	0	0	0	0	0		Approved for
	potential to accumulate metals and									external funding
	to produce nanoparticles under in									
	vivo and in vitro conditions. PI:									
	Dr. U.K. Tomar, 2014-18 (4 years)									
	Total	92.61	0	0	0	0	0	0		
	Grand Total	297.1	4.81	3	4.2	10.08	8.4	30.49		

		et	Sub He	ead wise br		oudgetary re or 2014-15	equirement	(Rs. In	er	
Sl. No.	Research Projects	Total Budget outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	
1	Ongoing Projects	446.27	6.79	11.81	21.42	25.566	3.11	68.696	9 JRF, 14 FA	Priority is to be given for completion of ongoing projects. All budget support is to be given to ongoing projects before starting new projects.
2	New Projects	297.1	4.81	3	4.2	10.08	8.4	30.49	1 RA, 3 JRF, 1 FA	New projects will be started subject to availability of funds after fulfilling liability of ongoing projects.
	Total	743.37	11.6	14.81	25.62	35.646	11.51	99.186		

## C. Budget Summary of Ongoing and New Projects:

### **Rain Forest Research Institute, Jorhat**

## A. Ongoing Projects

		get	Sub Head		up of budgeta 2014	• •	ment (Rs. In	lakhs) for	ı	
Sl. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	ist area I: Managing Forests and Forests Pi		elihood sup							_
1	Studies on soil profile attributes under Forest and Jhum land areas of some selected sites of Nagaland state. PI: Dr. P K Das, 2013–16 (3 years)	16.286	0.94	0.75	0.95	2.424	0	5.064	1 JRF 1 FA	Approved for continuation
2	Studies on the traditional knowledge of medicinal plants used by Nepali community in Assam and identification of important species for chemical analysis. P.I: Shri H.N. Dhungana, 2013-16 (3 yrs)	4.99	0.64	0.08	0.12	0.84	0	1.68	1 FA	Approved for continuation
3	Studies on the diversity of soil borne entomopathogenic fungi in different land use 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. PI R. Raja Rishi, 2013-16 (3 years)	8.27	0.8	1.18	0.2	0.84	0	3.02	1 FA	Approved for continuation
4	Raising planting materials of selected cane species and establish plantation in fringe villages of Karbi- anglong, Assam to sustain rural livelihood. PI: Shri H.R. Borah, 2013-16 (3 years)	10.08	1.50	0.55	6.65	1.08	0.30	10.08	1 PA	Approved for continuation
5	Study on post flowering regeneration status of <i>Melocanna baccifera</i> in Tripura Dr. Dhruba Jyoti Das, Dr. T. C. Bhuyan, A.K. Deka, DCF, 2012-15 (3 years)	16.56	1.5	0	0.4	0.84	0	2.74	1 FA	Approved for continuation

#### Annexure-VII A (RFRI)

1	2	3	4	5	6	7	8	9	10	11
6	Stability Analysis of Candidate Plus Clumps (CPCs) of Bamboos and Identification of CPCs Specific SSR Marker (Earlier title) / Diversity analysis and generation of species specific molecular marker for commercially important bamboo species of Northeast India (Modified title). PI: Mohd Ibrahim, 2013-16 (3 years)	24.74	1.31	2.8	0.5	1.44	0	6.05	1 JRF	Approved for continuation
7	Preliminary phyto-chemical analysis of Abroma augusta L. No. RFRI-42/2010-11/SFM.(Sub ProjC). PI: Dr. S.C. Biswas, 2013-14 (1 year) (Change Request)	3.68	0	0.38	0	0.42	0	0.8	1 FA	Approved 6 months extension upto 30th September, 2014 within approved budget.
8	Studies on soil profile attributes under forest and jhum land areas of some selected sites of Nagaland state PI: Dr. P.K. Das, Duration:2013 – 16 (3 years) (Change Request)	16.286	1.39	1.02	0.68	2.424	0	5.514	1 JRF 1 FA	Approved additional budget of Rs. 0.65 lakhs.
	Total	100.892	8.08	6.76	9.5	10.308	0.3	34.948	3 JRF, 1 PA, 6 FA	
Thru	st Area II: Biodiversity conservation and	ecological secu	ırity			11			) -	1
9	Assessment of diversity and carbon sequestration potential of above ground woody biomass of Semi Evergreen Forest in Assam, PI: Shri Bijoy Pradhan, DCF 2013-16 (3 Years)	14.68	1.2	1	0.3	2.42	0	4.92	1 JRF	Approved for continuation
10	Genetic diversity of Trichoderma strains prevalent in Forest types of North-Eastern India. PI: Dr. Shailesh Pandey, 2013-16 (3 years)	27.21	0.95	2	0.3	0.84	0	4.09	1 FA	Approved for continuation

#### Annexure-VII A (RFRI)

1	2	3	4	5	6	7	8	9	10	11
11	Studies on the economically important diseases of medicinal and aromatic plants of Assam to develop management practices through organic approach. Dr. Shailesh Pandey, 2013-16 (3 years)	8	1	0.5	0.34	0.84	0	2.68	1 FA	Approved for continuation
12	Ecology, utilization and conservation of Garcinia species in upper Brahmaputra valley Assam. PI: Dr. D. Dutta, 2012-15 (3 years)	17.85	0.8	0.44	2	0.84	0	4.08	1 FA	Approved for continuation
13	Studies on the incidence and management of pine mortality in Manipur (RFRI- 38/2010-11/FP) PI: Dr. R.K. Borah, 2011- 14 (3 years) ( <b>Change Request</b> )	11.17	0.5	0.11	0.05	0.84	0	1.5	1 FA	Approved 1 year extension up to March 2015 within approved budget outlay
14	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- 14 (3 yrs) (Change Request)	15.23	1	0.45	0.55	2.53	-	4.53	1 JRF 1 FA	Approved 1 year extension up to March 2015 within approved budget.
15	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 Endomycporrhizae and bioagents in rhizophere of <i>Abroma</i> <i>augusta</i> L. and their role in its propagation and conservation. No. RFRI- 42/2010-11/SFM.(Sub ProjA),Dr. Vipin Parkash, 2011-14 (3 yrs) ( <b>Change</b> <b>Request</b> )	16.61	0	0	0	0	0	0	0	Approved 6 months extension upto 30th September, 2014 within approved budget.
	Total	110.75	5.45	4.5	3.54	8.31	0	21.8	2 JRF, 5 FA	

#### Annexure-VII A (RFRI)

1	2	3	4	5	6	7	8	9	10	11
Thru	ist Area III: Forests and climate change							•		
16	Rehabilitation of degraded jhum land through potential bamboo species with reference to carbon sequestration and livelihood development. PI: Dr. I.P. Bora, 2009-14 (5 years) (Change Request)	16.12	0.2	0.3	0.06	0.792	-	1.352	1 JRF	Approved 6 months extension upto 30th September 2014 within approved budget.
	Total	16.12	0.2	0.3	0.06	0.792		1.352	1 JRF	
Thru	st area IV: Forest Genetic Resource Mana	gement and T	'ree Improv	ement						
17	Study on seed source variation for germination and seedling growth and establishment of seedling seed orchard of <i>Michelia champaca</i> . PI: Md. Ibrahim, 2013-16 (3 years)	10.47	1	0.12	0.7	0.84	0	2.66	1 FA	Approved for continuation
18	In vitro propagation of <i>Vanda coerulea</i> . PI: Shri Satyam Bordoloi, 2013-16 (3 years)	6.65	0.6	0.9	0.5	0	0	2		Approved for continuation
19	Screening of <i>Gmelina arborea</i> Roxb. clone for productivity and stability. PI: Dr. Tarachand, 2013-18 (5 years)	31.98	2.7	0.99	4.55	1.92	0	10.16	1 PA, 1 FA	Approved for continuation
20	All India coordinated project for genetic improvement of <i>Melia composita</i> –RFRI component. PI: Dr. Tarachand, 2012-15 (3 years)	107	1.5	5.41	1.5	1.59	0	10	1 JRF	Approved for continuation
21	Stability Analysis of Candidate Plus Clumps (CPCs) of Bamboos and Identification of CPCs Specific SSR Marker. PI: Mohd Ibrahim, 3 years (2013- 16) ( <b>Change Request</b> )	24.74	0	0	0	0	0	0		Drop the project and submit closer report.
	Total	180.84	5.8	7.42	7.25	4.35	0	24.82	1 JRF, 1	
		400 (00	10.52	10.00	20.25	22.50	0.2	00.00	PA, 2 FA	
	Grand Total	408.602	19.53	18.98	20.35	23.76	0.3	82.92		

### **B.** New Projects

		et	Sub Head	wise break	up of budgeta 2014		ment (Rs. In	lakhs) for	r	
Sl. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014- 2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	ist area I: Managing Forests and Forests Pro	ducts for liv	velihood sup	port & eco	nomic growth					
22	Exploration of sticky material for incense sticks from the plant species. PI: Shri S.C. Biswas, 2014-16 (2 years)	7.28	0.95	0.6	0.97	1.08	0	3.6	1 P.A.	Approved
23	Evaluation of forest fruits for the nutritional value and develop value added products for economic enhancement of the local people. PI: Shri S.C. Biswas, 2014-16 (2 years)	7.16	0.6	0.6	1.25	1.08	0	3.53	1 PA	Approved
	Total	14.44	1.55	1.2	2.22	2.16	0	7.13	2 PA	
Thru	st Area 2: Biodiversity conservation and eco	logical secu								
24	Studies on ecological and ethno- mycological aspects of wild mushrooms of Meghalaya. Rajesh Kumar,2014-17(3 yrs)	17.862	1.9	0.2	1.13	2.424	0	5.654	1 FA 1 JRF	Approved
25	Investigations into the mortality of <i>Parkia</i> <i>roxburghii</i> G. Don in North East India. PI: Dr. R.K. Borah, 2014-17 (3 years)	13.94	1.28	0.27	0.1	1.998	0.8	4.448	1 JRF, 1 PA	Approved
26	A preliminary investigation on hypotrophy (dwarfing/stunting) of <i>Lilium mackliniae</i> Sealy. A. K. Deka, DCF, 2014-16 (2 years)	6.76	1.79	0.4	1.37	0	0.78	4.34		Approved
27	Impact of <i>Mikania micrantha</i> Kunth. ex H.B.K. on microenvironment of native species in Bherjan-Borjan-Padumoni R.F., Dilli R.F. and Abhayapur R.F. of upper Assam. Dr Kuntala N. Barua, 2014-17(3yrs)	14.83	1	0.85	0.8	1.68	0.59	4.92	1 FA	Approved

#### Annexure VII B (RFRI)

1	2	3	4	5	6	7	8	9	10	11
28	Land- use and land- cover change analysis vis-à-vis socioeconomic characterization of area around Kaziranga National Park: A geospatial approach. PI: Dr. Dhruba Jyoti Das, 2014-17 (3 years)	20.14	0	0	0	0	0	0		Approved for external funding.
29	Population genetic structure of Calamus species and influence of infectious diseases in Mizoram and Tripura, North East India. PI: Shri Hans Raj, 2014-17 (3 years)	22.22	0.2	2	0.05	1.35	4.4	8	1 FA	Approved
	Total	95.752	6.17	3.72	3.45	7.452	6.57	27.362	2 JRF, 1 PA, 3 FA	
Thru	ust Area 3: Forest and climate change									
30	A study on distribution and phenological events of select-species along an altitudinal gradient at regional scale in North East India Himalayas. A.K. Deka, 2014-16 (2 yrs)	16.25	3.57	1.4	2.73	0	3.2	10.9	0	Approved. Modify the title.
	Total	16.25	3.57	1.4	2.73	0	3.2	10.9		
Thru	ust Area 4:Forest genetic resources managem	ent and tree	improvem	ent						
31	Identification of suitable clones of Populus species for Northeast India through genetic evaluation. Md. Ibrahim, 2014-19 (5 years)	29.37	1.5	3.5	1	1.32	0	7.32	1 JRF	Approved
	Total	29.37	1.5	3.5	1	1.32	0	7.32	1 JRF	
	Grand Total	155.812	12.79	9.82	9.4	10.93	9.77	52.71		

		et	Sub Head	l wise brea		getary requi 014-15	rement (Rs.	In lakhs) for	er	
Sl. No.	Research Projects	Total Budget outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	
1	Ongoing Projects	408.602	19.53	18.98	20.35	23.76	0.3	82.92	7 JRF, 2 PA, 13 FA	Priority is to be given for completion of ongoing projects. All budget support is to be given to ongoing projects before starting new projects.
2	New Projects	155.812	12.79	9.82	9.4	10.932	9.77	52.712	3 JRF, 3 PA, 3 FA	New projects will be started subject to availability of funds after fulfilling liability of ongoing projects.
	Total	564.414	32.32	28.8	29.75	34.692	10.07	135.632		

# C. Budget Summary of Ongoing and New Projects:

### Himalayan Forest Research Institute, Shimla

## A. Ongoing Projects

		et	Sub Hea	d wise bre	akup of bu lakhs) for	· ·	requiremen	t (Rs. In	5	
SI. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	st area I: Managing Forests and Forests Pro	oducts for	livelihood	support &	economic	growth				
1	Determination of nursery requirements and initial planting performance of <i>Diploknema</i> <i>butyracea</i> (Roxb.) H. J. Lam and <i>Myrica</i> <i>esculenta</i> Buch. Ham under mid-hill conditions of Himachal Himalayas. PI: Dr. Sandeep Sharma, 2012-17 (5 years)	15.5	0.4	0.08	2	0.84		3.32	1 FA	Approved for continuation
2	Studies on Seed Germination and Longevity of <i>Abies spectabilis</i> (D. Don) Spach. PI: Sh. PS Negi, 2011-16 (5 years)	15.75	0.8	0.45	0.6	0.84		2.69	1 FA	Approved for continuation
3	Status, Survey and Mapping of Ashtavarga Group of Medicinal and Aromatic Plants (MAPs) in Himachal Pradesh. PI: Dr. Vaneet Jishtu, 2012-17 (5 years)	19.75	1.1	0.55	0.8	1.86		4.31	2 FA	Approved for continuation
4	Isozyme Variation in Natural Populations of <i>Pinus gerardiana</i> (NEOZA PINE). PI: Dr. Rajesh Sharma, 2011-2014 (3 years) ( <b>Change Request</b> )	13.7	0.46	0.13	0.05	0.84		1.48	1 PA	Approved 1 year extension upto March 2015 within approved budget.
	Total	64.7	2.76	1.21	3.45	4.38		11.8	1 PA, 4 FA	
Thru	st Area II: Biodiversity conservation and e	cological s	•							
5	Study on the Influence of Climate on Bionomics of <i>Pityogenes scitus</i> Blanford (Coleoptera: Scolytidae) in Himachal Pradesh. PI: Dr. Ranjeet Singh, 2010-15 (5 years)	19	0.75	0.3	1	1.68	0	3.73	1 JRF	Approved for continuation

#### Annexure-VIII A (HFRI)

6	Biology and Management of Insect pests of seeds of <i>Juniperus polycarpos</i> C. Koch and evaluating the insect-pests resistance performance in the nursery. PI: Dr. Pawan	8.56	0.7	1.2	0.6	0.84	0	3.34	1 FA	Approved for continuation
	Kumar, 2012-15 (3 years)									
	Total	27.56	1.45	1.5	1.6	2.52	0	7.07	1 JRF, 1 FA	
Thru	ist Area III: Forests and climate change									
7	Assessment of Carbon Stock in Forest Types of Shimla Forest Circle, Himachal Pradesh. PI: Dr. R. K Verma, 2011-16 (5 years)	24.94	0.6	0.25	0.2	2.76	0	3.81	1 PA 2 FA	Approved for continuation
	Total	24.94	0.6	0.25	0.2	2.76	0	3.81	1 PA, 2 FA	
Thru	ist area IV: Forest Genetic Resource Manag				0.2		v	0.01		
8	Population Genetic Analysis of Himalayan Banj Oak ( <i>Quercus leucotrichophora</i> ) forests and its pertinence to Genetic Conservation. PI: Dr. Rajesh Sharma, 2011-2014 (3 years) ( <b>Change Request</b> )	5	0.25	0.53	0.7			1.48		Approved 1 year extension upto March 2015 within approved budget.
	Total	5	0.25	0.53	0.7			1.48		
	Grand Total	122	5.06	3.49	5.95	9.66	0	24.16		

## **B.** New Projects

		et	Sub Ho	ead wise b	reakup of 2014		y requirem	ent for	<u>н</u>	
SI. No.	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	ist area I: Managing Forests and Forests Pr	oducts for	livelihood	support &	economic	growth				
9	Standardization of nursery and propagation methods of <i>Trillium govanianum</i> Wall. ex D. Don (Nag chhatri). PI: Sh. Jagdish Singh, 2014-19 (5 years)	17.3	1.15	0.5	0.8	0.81	0.5	3.76	1 PA	Approved. Period reduced to 3 years accordingly total budget outlay may be revised.
10	Evaluation of Growth Parameters of Juniperus polycarpos C. Koch in Nursery Conditions. PI: Sh. PS Negi, 2014-2018 (4 years)	16.5	0.6	0.3	1.5	0.81	0	3.21	1 PA	Approved
	Total	33.80	1.75	0.80	2.30	1.62	0.50	6.97	2 PA	
Thru	st Area II: Biodiversity conservation and e	cological s	security							
11	Ecological Studies in Alpine Pastures of District Shimla, Himachal Pradesh PI: Dr. RK Verma, 2014-18 (4 years)	9.25	0.65	0.25	0.15	0.81	0	1.86	1 PA	Approved
12	Diversity and Ecological Significance of Beetles (Insect: Coleoptera) in Great Himalayan National Park Conservation Area (GHNPCA) HP, India. PI: Dr. Ranjeet Singh, 2014-17 (3 years)	15.49	2.2	0.6	1.25	1.08	0	5.13	1 PA	Approved
13	Biodiversity of Spiders in Himachal Pradesh. PI S. Chakrabarti, 2014-17 (3 yrs)	7.47	0.6	0.4	0.2	0.7	0.7	2.6	1 PA	Approved
	Total	32.21	3.45	1.25	1.6	2.59	0.7	9.59	3 PA	
	st Area III: Forests and climate change				1	1		1	Γ	
14	Analysing the impact of control burning in chirpine forests and its impact on carbon sequestration potential of undergrowth. PI: Dr. Ranjeet Kumar, 2014-18(4 years)	19.052	1.3	0.9	0.25	1.818	0	4.268	1 JRF 1 FA	Approved

#### Annexure-VIII B (HFRI)

1	2	3	4	5	6	7	8	9	10	11
15	Carbon sequestration potential of existing land use system in Lahaul Valley, Himachal Pradesh. PI: Dr. KS Kapoor, 5 years (2014-2019)	20.8	0.6	0.3	1	0.8	0.4	3.1	1 PA	Approved. Need to look more holistically.
	Total	39.85	1.9	1.2	1.25	2.618	0.4	7.368	1 JRF, 1 PA, 1 FA	
Thru	ist area IV: Forest Genetic Resource Manag	ement and	l Tree Imp	rovement						
16	Survey, selection of species and evaluation of genotypes in Seabuckthorn (Hippophae spp). PI: Dr Rajesh Sharma,2014-19 (5 yrs)	27.21	0	0	0	0	0	0		Not Approved. Modify project for next year.
	Total	27.21	0	0	0	0	0	0		
	Grand Total	133.1	7.1	3.25	5.15	6.828	1.6	23.928		

#### Annexure-VIII C (HFRI)

## C. Budget Summary of Ongoing and New Projects:

		et	Sub Hea			udgetary r r 2014-15	equiremen	t (Rs. In	wer	
Sl. No.	Research Projects	Total Budget outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Pow	
1	<b>Ongoing Projects</b>	122.2	5.06	3.49	5.95	9.66	0	24.16	1 JRF, 2 PA, 7 FA	Priority is to be given for completion of ongoing projects. All budget support is to be given to ongoing projects before starting new
										projects.
2	New Projects	133.1	7.1	3.25	5.15	6.828	1.6	23.928	1 JRF, 8 PA, 1 FA	New projects will be started subject to availability of funds after fullfilling laibility of ongoing projects.
	Total	255.3	12.16	6.74	11.1	16.49	1.6	48.088		

### Institute of Forest Biodiversity, Hyderabad

### A. Ongoing Projects

		et	Sub H			of budgeta s) for 2014	ry require -15	ment	Ŀ,	
Sl. No	Project title/ PI/ Duration	Total Budget Outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thru	ust area I: Managing Forests and Forest		s for liveli		pport & ec		owth: NIL			
1	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, 2009-14 (5 yrs) (Change Request)	10.32		0.12		0.28		0.4	1 FA	Approved 4 months extension upto 31st July, 2014 with additional budget of Rs. 0.40 lakhs.
	Total	10.32		0.12		0.28		0.4	1 FA	
Thru	ust Area II: Biodiversity conservation a	nd ecologi	cal securi							
2	Ecological diversity of Kawal Tiger Reserve in Andhra Pradesh - A bench mark study. PI: Mr M. B. Honnuri, 2013-16 (3 years) (Change Request)	24.7	1.63	0.3	1.5	2.04	0.6	6.07	2 PA	Approved change in PI to Sh. M.B. Honnuri and modification of the short term objective. PI should retain the first two objectives namely "To study and classify different habitats" and "Assessment of flora and fauna"
3	Natural Regeneration studies of important tree species of Nallamalla Seshachalam Hills and Koundinya wildlife sanctuary of Eastern Ghats of Andhra Pradesh. PI: Mr M. B. Honnuri, 2013-18 (5 years) (Change Request)	27.08	1.34	0.32	1.19	3.06	0	5.91	3 PA, 1 FA	Approved change in PI and in objectives (retain the first and fourth objectives namely, "To study the dynamics of natural regeneration of woody species in different forest ecosystems in Nallamalla, Seshachalam Hills and Koundanya Wildlife Sanctuary in Eastern Ghats of Andhra Pradesh" and "To assess impact of soil status on natural regeneration"). Proposed change in budget from Rs. 18 lakhs to Rs. 27.08 lakhs is accepted.

#### Annexure-IX A (IFB)

1	2	3	4	5	6	7	8	9	10	11
4	The successional trends and productivity studies of Sriharikota (SHAR) and Pulicat Lake ecosystems for conservation of biodiversity. PI: Dr. G.R.S.Reddy, 2013-16 (3 years) (Change Request)	19.92	1.5	2	1.84	1.02	2.9	9.26	1 PA	<ul> <li>Approved reduction of budget outlay to Rs.</li> <li>19.92 lakhs along with change in objectives (1.</li> <li>Study of the plant diversity with special reference to their successional trends across ecotones</li> <li>2. Monitor the ecosystem dynamics in relation to environmental factors such as temperature, rainfall and RH and biological factors in littoral aquatic communities.</li> <li>3. To assess impact of soil status on natural regeneration) as proposed.</li> </ul>
	Total	71.7	4.47	2.62	4.53	6.12	3.5	21.24	6 PA, 1 FA	
Thr	ust Area III: Forests and climate change	: NIL								
Thr	ust area IV: Forest Genetic Resource Ma	anagement	t and Tree	e Improv	ement					
5	Establishment and evaluation of multilocational trials of <i>Melia azedarach</i> L. and <i>Melia dubia</i> Cav.	18	0.85	0.4	2.13	1.87	0	5.25	1 JRF	Approved for continuation
6	Molecular assessment of breeding patterns in clonal seed orchards of Teak in Andhra Pradesh	26	0	1.064	0	0.936	0	2	1 JRF	Approved for continuation
7	Molecular assessment of breeding patterns in clonal seed orchards of Teak in Andhra Pradesh. PI: Dr. Swapnendu Pattanaik, 2011-14 (3 years) (Change Request)	26	0	1.064	0	0.936	0	2	1 JRF	Approved 6 months extension upto 30th September, 2014 within approved budget.
	Total	70	0.85	2.528	2.13	3.742	0	9.25	3 JRF	
	Grand Total	152.02	5.32	5.268	6.66	10.142	3.5	30.89		

### **B.** New Projects

		Outlay	Sub He	ad wise l	oreakup of In lakhs)		y requirem 15	ent (Rs.	er	
SI. No	Project title/ PI/ Duration	Total Budget (	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Power	Recommendations of RPC (2014-2015)
1	2	3	4	5	6	7	8	9	10	11
Thr	ust area I: Managing Forests and Forests Products fo	or liveliho	od suppor	rt & econ	omic grow	<b>th</b>				
8	Screening for establishing bio-efficiency of ethno- Insecticidal plants from the forest of Andhra Pradesh. PI: Dr. (Mrs). Deepa M, 2012-15 (3 Years)	11.753	0.3	0.4	0.26	1.872	3.24	6.072	1 JRF	Approved
	Total	11.75	0.3	0.4	0.26	1.872	3.24	6.072	1 JRF	
Thr	ust Area II: Biodiversity conservation and ecological	security:	NIL							
	ust Area III: Forests and climate change: NIL	Ľ								
Thru	ust area IV: Forest Genetic Resource Management a	nd Tree I	mproveme	ent						
9	Productivity improvement in <i>Pterocarpus santalinus</i> L.f. through mass selection and selective breeding. PI: Dr. Pattanaik, 2014-19 (5 years)	37.768	0.8	0.4	0.4	1.404	9	12.004	1 JRF, 1 Mali	Approved. Modify objective and title suitably. Submit the revised project
	Total	37.77	0.8	0.4	0.4	1.404	9	12.004	1 JRF, 1 Mali	
	Grand Total	49.52	1.1	0.8	0.66	3.276	12.24	18.076		

		et				-	f budgeta for 2014	•	er	
SI. No.	Research Projects	Total Budget outlay	Travel and conveyance (Res) - TE	Consumables (M & S)	Research Expenditure (FRE)	Fellowship	Capital assets (Scientific Equipments)	Total	Man Pow	
1	<b>Ongoing Projects</b>	152.02	5.32	5.268	6.66	10.142	3.5	30.89	3 JRF, 6	Priority is to be given for completion of ongoing
									PA, 2 FA	projects. All budget support is to be given to ongoing projects before starting new projects.
2	New Projects	49.52	1.1	0.8	0.66	3.276	12.24	18.076	2 JRF, 1	New projects will be started subject to availability
									Mali	of funds after fulfilling liability of ongoing
										projects.
	Total	201.54	6.42	6.068	7.32	13.418	15.74	48.966		

# C. Budget Summary of Ongoing and New Projects:

# **Projects funded by sources other than ICFRE**

	Forest Research	Institute, Dehradun			
Sl. No.	Project Title	Principal Investigator	Duration (From - To)	Approved budget (Rs in lakhs)	Funding Agency
1.	Baseline Survey / Inventory of Guggal and Salai Guggal Distribution : Haryana	Dr. A. K. Sharma	2013-14	5	State Medicinal Plants Board Haryana
2.	Monitoring and evaluation of works carried out by Punjab Forest Department under all schemes including "Greening Punjab Mission" - Status of different activities:	Shri A. S. Rawat	2012-14	110.77	Punjab Forest Department
3.	Demand and Supply Status of Wood in Punjab	Dr H P Singh	2012-14	25	Punjab Forest Department
4.	To study the suitability of combi-ply from <i>Melia composita</i> and Poplar	Ms Ismita Nautiyal	2013-16	1.7	UCOST
5.	Soil Quality Index (SQI) for different land uses of Tehri Garhwal District of Uttarakhand	Dr Parul Bhatt	2012-14	1.69	UCOST
6.	Establishment of Common Facility Center for Bamboo Processing, Training and Resea	Dr Sadhna Tripathi	2013-15	50	BTSG
7.	Establishment of State Forest Research Institute Ladowal, Punjab	Shri A. S. Rawat	2012-14	2	Punjab Forest Department
8.	Biological Control of Eucalyptus Gall Wasp, Leptocybe invasa.	Dr Yousuf	2012-17	25	Punjab Forest Department
9.	Identification of extent of forest lands in forest fringe villages	Shri Rajbir Singh	2011- June 2014	626.27	National Rainfed Area Authority of India (NRAA)
10.	Setting of Pilot Scale facilities for and its trial for technology transfer.	Shri D. P. Khali	2012-2014	20.4	Tripura Forest Develop and Plantation Corp Ltd
11.	Impact of Sal ( <i>Shorea robusta</i> ) Aided Natural Regeneration (ANR) in Shiwalik sal forest of Uttarakhand.	Shri V.K. Dhawan	Feb 2012-July 2014	5.65	Uttarakhand Forest Dept
12.	Medicinal and edible mushroom cultivation for income generation in rural areas in Uttarakhand	Dr. N. S. K. Harsh	2013-15	2.24	UCOST

13.	Digitization of Forest Flora of Manipur	Ms. Ranjana Negi	Jan 2014-Jan 2016	9	Manipur Forest Department
14.	Establishing a Common Facility Center at Hoshiarpur for Wood Industries and Small Scale Wood Workers in Punjab	Dr. Sadhna Tripathi	Jan 2014-Jan 2016	31.2	PSAMB
15.	Efficacy of Clothianidin 7.5 CS on termites in building construction.	Dr. Shamila Kalia	2012-2015	4.5	Sumitomo Chemical India Pvt Ltd Mumbai
16.	Mid career training (Phase III) of ifs officers II cycle	Director FRI	2013-16	280	IGNFA
17.	Multiplication, conservation and promotion of Ringal cultivation for socio-economic upliftment of hilly rurals in Uttarakhand	Dr. Meena Bakshi	2013-15	2.46	UCOST
18.	Studies on grasses of Uttarakhand and Himachal Pradesh	Ms. Ranjana Negi	2011-14	19.57	MOEF
19.	Eco-restoration of coal-mined-out areas of BCCI, Dhanbad	Dr. H.B. Vasistha	2011-14	20	Bharat Coking Coal Ltd., Dhanbad
20.	Detailed ecological restoration study including assessment of site conditions of the mine and analysis of results of plantation work carried out during previous years in Jhingurda mine of NCL	Dr. H.B. Vasistha	Feb 2014-March 2014	6	Northern Coalfield Ltd. , Singrauli
21.	Identification & reclamation of 10 ha of degraded land & biodiversity development at NCL	Dr. H.B. Vasistha	Jan 2014-Jan 2017	40	Northern Coalfield Ltd. , Singrauli
22.	Floral biodiversity survey in the state of Bihar	Dr. S. Nautiyal	2 years from date of commencement	65.26	Bihar Forest Department
23.	Biodiversity Conservation and Micropropagation of Sea Buckthorn ( <i>Hippophae</i> ) of Uttarakhand	Dr. JMS Chauhan	2012-2014	4.81	UCOST
24.	Supply of Quality Seeds of Forestry species	Dr Manisha T hapliyal	2012-2014	14	Punjab Forest Department
25.	Study of reproductive biology of the endangered taxa <i>Trachycarpus</i> <i>takil</i> Becc (Arecaceae), <i>Mahonia jaunsarensis</i> Ahrenelt (Berberidaceae), <i>Pittosporum erocaspum</i> Royle (Pittosporaceae) <i>Eremostachys superba</i> Royle ex Benth (Labiatae)	Dr. Meena Bakshi	2010-2015	35.33	MOEF
26.	Creation of field germplasm bank of <i>Grewia optiva</i> and <i>Quercus leucotrichophora</i> , the important indigenous fodder tree species of Uttarakhand"	Dr. S. Nautiyal	July 2010- June 2014	19.32	DST
27.	Bamboo Genetic Evaluation, Improvement and Propagation	Dr. H S Ginwal	2014-2018	44.31	BTSG_ICFRE

#### Annexure-X

	Principal	ly Approved			
28.	Setting of large clonal nursery/ Coordinating Planting Stock Improvement program in Punjab	Dr H. S. Ginwal	2014-18	130	BTSG-ICFRE
29.	Commercial production of quality planting material of bamboo species	Dr. Ajay Thakur	Funding awaited	42	BTSG_ICFRE
30.	Development of tissue culture protocol for propagation and conservation of <i>Ginkgo biloba</i> L.	Dr. J.M.S. Chauhan	3 years	23.53	NMPB
31.	Studies on chemoenzymatic treatment of black liquor for recovery of reducing sugars for bioethanol production.	Dr. P. K. Gupta	3 years	15.52	DBT New Delhi
32.	Afforestation of <i>Melia composita</i> willd. In disaster affected areas of Uttarakhand	Dr. Ashok Kumar	3 years	38.73	National Seeds Corporation
	Submitted for	External Funding			
33.	Develop tool, technique and method for enhancing REDD+ Forest Management in India	Director FRI	1 year	52.8	Tetra Tech/ ARD U.S.
34.	Impact of climate change on Himalayan forest ecosystems and their responses in Uttarakhand	Director FRI	3 years	354	DST
35.	Ecological restoration study and preparation of road map for Ecological restoration works in coal mines of NCL, Singrauli (5 components)	Dr. H.B. Vasistha	3 years	141.5	NCL
36.	Screening of parents for clonal forestry and hybridization for higher productivity in <i>Eucalyptus</i>	Dr. Ashok Kumar	5 years	72.95	CESS, Ministry of Industries

	Institute of Wood Science and Technology, Bangalore								
ONG	ONGOING PROJECT FOR THE YEAR 2014-15								
S1.	Project Title	Principal	Duration	Approved	Funding Agency				
No.		Investigator	(From - To)	budget					
				(Rs in lakhs)					
37.	Studies on the Species Diversity of whiteflies (Aleyrodidae:	Dr. R. Sundararaj	Dec. 2011-Nov. 2014	10.66	MoEF				
	Homoptera) and their natural enemies in Mangrove habitats of India								
38.	Studies on hard substratum fauna in five major ports on the east coast of	Sh. M. Balaji	2012-2017	43.384	NIO				
	India								
39.	Distribution, assessment and growth of <i>Santalum album</i> L. an important	Dr. V.P. Tewari	Nov. 2013-October	10.338	NMPB				
	medicinal plant of Karnataka.		2015						
40.	Assessment of decay of wood in the forests and impact on methane	Dr. Muthu Kumar	2013-2015	6	KFD				
	release contributing towards climate change	Arunachalam							

41.	Bio-thermoplastic composites: Evaluation of physical, mechanical,	Dr. Pankaj	2013-2016	36.69	DST
	morphological and thermal properties.	Aggarwal			
42.	Microwave assisted chemical modification of wood	Dr. K. K. Pandey	2013-2016	32.82	DST
43.	New methods of chemical modification of wood for improving dimensional stability and durability.	Dr. K. K. Pandey	2013-2016	12.4	CSIR
44.	Distribution, Diversity and Productivity of <i>Dendrocalamus stocksii</i> in the Western Ghats part of Karnataka.	Dr. Syam Viswanath	2013-15	5.84	KFD
45.	Seed behavior and effect of differential drying and temperature on viability of <i>Mesua ferrea</i> L. and <i>Madhuca insignis</i> (Radlkofer)H. J. Lam. – species of wet evergreen forest of Western Ghats	Dr. Geeta Joshi	2013-2015	5.5	KFD
46.	Survey/ inventory of vegetation in 5 circles of Karnataka (Shimoga, Kanara, Gulbarga, Belgaum and Mangalore)	Mr. B.S. Chandrashekar	From 2012 (1.5 years)	3.4	KFD
47.	Research/studies on ecological status in 3 circles of Karnataka (Shimoga, Canara and Mangalore circles)	Mr. B.S. Chandrashekar	From 2012 (1.5 years)	3	KFD
48.	Standardization of extraction methods, evaluation and quantification of Halmaddi from <i>Ailanthus malabarica</i> DC.	Mr. B. S. Chandrashekar	2013-15	5.911	KFD
49.	Conservation, improvement and bioresource development of sandalwood ( <i>Santalum album</i> L.)	Dr. Syam Viswanath	2013-2016	46.886	NMPB
50.	Development of <i>quasi in-situ</i> conservation and restocking of natural areas of <i>Embelia ribes</i> burm.f- an important endangered medicinal plant species.	Dr. Ashutosh Srivastava	2013-2016	21.3	NMPB
51.	Growth Assessment and genetic diversity of <i>Melia dubia</i> Cav. In Karnataka.	Dr. A.N. Arun Kumar	2013-2015	7.06	KFD
	CONSULTANCY PROJECTS ONG	OING FOR THE P	ERIOD 2014-15		
52.	Assessment of wood quality variability in tree species prevalently grown in Punjab	Dr. S. S. Chauhan	2013-2015	17	Punjab Forest Department
53.	Development of natural fiber filled thermoplastic composites from natural resources available in the state of Punjab	Dr. Pankaj Aggarwal	2013-2015	50	Punjab Forest Department
54.	Establishment of demonstration plots and modern nursery for producing Quality planting stock of <i>Santalum album</i> and bamboo	Dr.Syam Viswanath	2013-2015	17.82	Punjab Forest Department
55.	Thermal modification of wood for value addition to plantation timbers	Dr. S.R. Shukla	2013-2014	9.02	Punjab Forest Department

	Institute of Forest Genetics &	Tree Breeding, Coin	nbatore		
Sl. No.	Project Title	Principal Investigator	Duration (From - To)	Approved budget (Rs in lakhs)	Funding Agency
56.	Improving the accessibility and affordability of improved seeds from breeding programs to benefit large numbers of smallholder tree farms and rural communities in Tamil Nadu and Puducherry, India.	Dr. A. Nicodemus	2012-14	28.60	AusAID
57.	New biocontrol opportunities for Prickly Acacia : Exploration in India	Dr. A. Balu	2008-14	44.90	Dept of Agri, Fisheries & Forestry Australia
58.	Genetic improvement of Eucalyptus through mapping and tagging of QTLs/genes	Dr. N. Krishna Kumar	2010-15	191.84	DBT
59.	Development of Inter-specific hybrid Corymbia torelliana x C.citriodora through Controlled Pollination: A Genetic Resource for Paper Industry	Dr. B. Nagarajan	2011-15	20.85	ITC
60.	Production of recombinant antifungal/antipest lectin from Withania somnifera	Dr. Modhumita Dasgupta	2010-15	29.83	DBT
61.	Clonal evaluation of Ailanthus excelsa in different agroclimatic zones of Tamilnadu	Shri DRS Sekar	2014-17	9.00	TNFD
62.	Augmentation of medicinal plants resources for primary health care practices by the tribal communities in the Nilgiris and enabling their livelihood enhancement	Dr. K. Paneer Selvam	2013-15	10.87	HADP
63.	Production and Testing of control pollinated Eucalypt Hybrids with improved Biomass and Pulp yield to support industrial forestry in Tamilnadu	Dr. B. Nagarajan	2010-15	14.23	TNPL
64.	Effect of elevated CO2 on active principles of commercially important medicinal plants.	Shri. S. Saravanan	2011-15	18.95	NMPB
65.	Germplasm Assemblage of Genetic Resources of Melia dubia in India	Dr. Rekha R Warrier	2012-15	9.50	APFD
66.	Germplasm assemblage of Genetic Resources of <i>Gmelina arborea</i> Roxb. in Karnataka	Dr. V.K.W. Bachpai & Shri A. Mayavel	2014-17	16.05	Karnataka FD
67.	Butterfly diversity in relation to landscape changes in the Walayar Valley, at Palakkad Gap in the Western Ghats	Dr. K.R. Sasidharan	2012-15	12.99	MoEF

68.	Reclamation of laterite lands using beneficial microbes in Kasargode District.	Dr. A. Karthikeyan	2013 - 16	10.45	Kerala FD
69.	Development of descriptors and DUS testing guidelines for indigenous forest tree species ( <i>Tectona grandis</i> and <i>Melia dubia</i> establishment of Field Gene Bank	Dr. V. Sivakumar	2013-16	21.89	PPV&FRA
70.	Yield improvement and adoption of plantation technologies in bioenergy crops for increasing the potential of bioenergy production	Dr. V. Sivakumar	2013-16	11.13	DST
71.	Development of Integrated Dry Land Agroforestry Systems in Tamil Nadu for enhancing livelihood opportunities	Dr.C.Buvaneswara n	2012 -15	21.35	TN-SPC
72.	Rapid Improvement of <i>Casuarina</i> and <i>Leucaena</i> to Enhance Pulpwood Production from Farm Forestry Plantations.	Dr Kannan C.S. Warrier	2012-14	15.18	IPMA
73.	Prospecting Bioactive compounds from certain flora: Bio-pesticides against papaya mealybug, <i>Paracoccus marginatus</i> Williams and Granara de Wilink in Tamilnadu.	Dr. S. Murugesan	2011-14	13.28	DST
74.	Contributory factors in the establishment of <i>Leptocybe invasa</i> (Fisher and LaSalle) on Eucalyptus plantations in Tamilnadu	Dr. N. Senthilkumar	2012-15	11.61	MoEF
75.	Establishment of a South Zonal Germplasm Bank of Melia dubia	Dr. Rekha R. Warrier	2013 –15	15.45	Karnataka FD
76.	Feasibility study on Facilitation of Tree Nursery for Enhancing the Livelihood of Tribal Community in Tamil Nadu.	Shri. S. Saravanan	2014 -16	4.88	TN-SPC
77.	<i>In vitro</i> production of secondary metabolites from tree species of Dasamoola through hairy root cultures	Dr. Rekha R Warrier	2014 - 18	30.96	NMPB
78.	Evaluation of performance of shola species of the nilgiris under projected climate change conditions	Dr. N. Krishna Kumar	2013 –16	9.98	HADP
79.	Value addition of Acacia resources of the Nilgiris for employment generation and livelihood support	Dr. N. Krishna Kumar	2013-16	7.86	HADP
80.	Insect pest complexes on medicinal plants and the influence of pest damage on their active principles	Dr. J. P. Jacob	2014 - 17	20.10	NMPB
81.	Standardization of protocol medium for bamboos in tissue culture lab	Dr. Rekha Warrier	2014-17	6.00	TNFD
82.	Conservation and improvement of Calophyllum inophyllum – A potential TBO of Karnataka	Dr. R. Anandalakshmi	2014-18	15.8	KaFD
83.	DUS centre for Eucalyptus and Casuarina	Dr. A. Nicodemus & Dr V Sivakumar	2013-16	6.00	PPV&FRA

	Institute of Forest Productivity, Ranchi								
S1.	Project Title	Principal	Duration	Approved	Funding Agency				
No.		Investigator	(From - To)	budget					
		_		(Rs in lakhs)					
84.	Multilocation trial of Jatropha curcas in different agroclimatic zones and	Dr. Animesh	2010-2014	41	DBT, New				
	study of agronomic practices.	Shina			Delhi				

	Tropical Forest Resea	rch Institute, Jabalp	ur		
Sl. No.	Project Title	Principal Investigator	Duration (From - To)	Approved budget (Rs in lakhs)	Funding Agency
85.	Standardization of plantation techniques for major forest plant species in Madhya Pradesh (MPFD).	NPS Nain	Jan. 2013 - 2017	22.22	MPFD
86.	Empowering tribal community through Lac cultivation in Madhya Pradesh. (MPFD).	Dr. Nanita Berry	Jan. 2013- Dec 2017	32	MPFD
87.	Standardization of sustainable harvesting practices of Mahul Patta (Bauhinia vahlii). (CGMFP)	Mrs. Neelu Singh	Apr. 2011-Oct 2014	9.34	CGMFP
88.	Quality Standardization of some important medicinal plants of Madhya Pradesh (MPSMFP)	Mrs. Neelu Singh	Jan 2012- Dec.2013 {extn. awaited}	8.1	MPSMFP
89.	Studies on harvesting time of some medicinal plants for their natural antioxidant constituents (CAMPA, MSFD)	Mrs. Neelu Singh	Sept 2012- Aug. 2015	9.96	CAMPA, MSFD
90.	Study on indigenous knowledge and documentation of extent of utilization of herbs in folk medicine prevalent in tribal pockets of Madhya Pradesh (MPCST)	Dr. Rajiv Rai	Sept 2013- Aug. 2015	4.93	MPCST
91.	Development of Silvi-Agri-Medicinal and Agri-medicinal systems in Vidharbh region of Maharashtra (CAMPA, MSFD)	Dr Nandita Berry	Sept 2012- Aug. 2015	9.91	CAMPA, MSFD
92.	Standardization of technique to enhance the quality and sustainable production of <i>Diospyros melanoxylon</i> leaves in Chhattisgarh.	Dr. Avinash Jain	Feb 2011- Jan 2014	14.71	
93.	Establishment of multilocational trials of hundred accessions of Jatropha carcus under network programme of DBT. (DBT)	Dr. Neelu Singh	April 10 - March 2014	12.97	DBT
94.	Population dynamics of threatened medicinal plants species growing in Buffer and Transition zone of Tadoba National Park (CAMPA, MSFD)	Dr. Sanjay Singh	Aug-15	9.58	CAMPA, MSFD
95.	Investigation of floristic diversity in teak plantation of various age groups in Barnawapara project, Chhattisgarh. (CGSFDC) ID-165	Dr. P.K. Khatri	Mar 2013 extn. awaited	5.94	CGSFDC
96.	Soil, Vegetation – Atmosphere Carbon Fluxes Measurement and	Dr. P.K. Khatri	Aug. 2013 Extn	11.24	MPFD, IIRS

	Modeling (SVF). Sub project of National Carbon Project (MPFD, IIRS, D.Dun)		awaited		DDN
97.	Utilization of automatic weather station / agrometeorological station data for agriculture, forestry and hydrological applications in Madhya Pradesh.	Dr. Avinash Jain	Jan 2010 - March 2014	20.4	
98.	Germplasm collection and ex-situ conservation of Pterocarpus marsupium Roxb. (CAMPA, CGFD).	Dr. Yogeshwar Mishra	April 2012- March 17	17.32	CAMPA,CGFD
99.	Comparative field performance of seedling and clonal planting stock of <i>Buchnania lanzan</i> Spreng. (MPSBB).	Mr. N.D. Khobragade			MPSBB
100.	Studies on variation in reserpine content in some high yielding genotypes of <i>in vitro</i> and seedling raised <i>Rauvolfia serpentina</i> Benth. (MPCST)	Dr. Yogeshwar Mishra	Jan 2011- Oct 14	4.47	MPCST
101.	Technology to regenerate / multiply mahul (Bauhinia vahlii) patta for getting higher production. (CGMFP).	Dr. Fatima Shirin	June 2011- May 2014	13.92	CGMFP
102.	Studies on development of in vitro regeneration system for Albizia procera (Roxb) Benth. (MPCST).	Dr. Naseer Mohammad	Feb 2010 - Mar. 2014 Extn. Awaited	5.48	MPCST

	Arid Forest Researc	ch Institute, Jodhpur			
Sl. No.	Project Title	Principal Investigator	Duration (From - To)	Approved budget (Rs in lakhs)	Funding Agency
	Completed P	ojects 2013-14			
103.	Assessment of Guggul Germplasm for Studying Population Density, Diversity, Female-Male Plant's Ratio for In Situ and Ex Situ Conservation in Rajasthan	Dr. U.K.Tomar	2010-14	17.05	SFD Raj
104.	Productivity and boimetric studies on some important species in semi- arid regions of Rajasthan for their sustainable management	Dr. Sunil Kumar	2009–14	5.47	SFD, Raj
105.	Assessment of Bilogical diversity of Sacred Groves of Rajasthan for improvement management and people livelihood	Dr. G. Singh	2013-14	9.99	SFD Raj
	Ongoing Pro	jects 2014-15			
106.	Development of package for integrated management of insect pests & diseases (IPDM) and improvement of planting stock material of neem ( <i>Azadirachta indica</i> ) through biofertlizers.	Dr. Sangeeta Singh	2014-17	15.99	DST, New Delhi

107.	Value addition to plants of agricultural and horticultural importance by	Dr. Sangeeta	2014-16	10	DST, New Delhi
107.	application of consortium of root fungal endophyte and nitrogen fixing	Singh	201110	10	
	prokaryote – Azotobacter spp.	~8			
108.	Documentation of Neem products and their role in socio-economic	Smt. Sangeeta	2014-17	15.93	DST, New Delhi
	upliftment of rural livelihood in Rajasthan and Gujarat	Tripathi			
109.	Optimization of processing methods for <i>Prosopis cineraria</i> and	Dr. Mala Rathore	2014-17	34.79	DST, New Delhi
	Capparis decidua fruits for their improved utilization in Western Ghats.				
110.	Studies on post technologies of <i>Azadirachta indica</i> and <i>Acacia senegal</i> -as alternative timber species for handicraft industries.	Dr. Ranjana Arya	2014-17	10.84	DST, New Delhi
111.	Standarization of non-destructive harvesting practices of <i>Commiphora wightii</i> gum oleogum resin	Dr. Ranjana Arya	2014-17	11.8	NMPB, New Delhi
112.	Phytoremediation of soil for productivity enhancement during land disposal of effluent	Dr. Abha Rani	2011-16	24.15	SFD Raj
113.	Designing and Development of Urban Forestry Model For Indian Institute of Technology (IITJ), Jodhpur, Rajasthan	Sh. N. Bala	2012-14	56.8	IIT Jodhpur
114.	Identification of Extent of Forest Lands in Forest Fringe Villages	Sh. M. K. Singh	2012-14	29.2	National Rainfed Area Authority of India(NRAA)
115.	Studies on seed insect pests of indigenous and exotic forest tree species and to develop IPM package for major insect damages in Gujarat (AFRI- 107/FPD/SFD-Guj./2011-14)	Dr. Meeta Sharma	2011-15	14.27	SFD, Gujarat
116.	Productivity enhancement of Kair (Capparis decidua) fruit to generate livelihood in rural areas of Thar desert	Dr. Ranjana Arya	2013-16	15.13	SFD Raj
117.	Studies on the effects of MPOWER programme on mitigation and adaptation towards Climate Change in western Rajasthan	Dr. G. Singh	2013-15	8.8	Mpower Govt. of Rajasthan
118.	Utilization of biotechnological tools for clonal propagation and supply of genetically superior trees of neem, ardu and bamboo's .	Dr. I.D. Arya	2013-16	22.86	SFD, Gujarat
119.	Documentation of Important Research Findings and Technologies for Applications to Forestry in Rajasthan	Dr. G. Singh	2013-15	11.66	SFD Raj
120.	Productivity studies and modeling growth and yield in teak plantations in Gujrat state (AFRI-96/silvi/JBIC/2009-14)	Dr. Sunil Kumar	2009-14 (requested for one year extension)	12.21	SFD, Gujarat

	Rain Forest Researc	h Institute, Jorhat			
S1.	Project Title	Principal	Duration (From - To)	Approved	Funding Agency
No		Investigator		budget (Rs	
		_		in lakhs)	
121.	"Development of DUS descriptors and variability studies on Bambusa	Mr. R. K. Kalita	2011-2014 (This	32.8348	PPV & FRA,
	balcooa and Dendrocalamus hamiltonii"		project is extended up		New Delhi
			to June 2014)		
122.	Morinda citrifolia L. (Noni) - Livelihood Option For The People Of	Dr. T.N.	2013-16 (3years)	28.98	NMPB
	North East India	Manohara			
123.	Development of descriptors and evaluation of artificial inoculation in	Dr. R.K. Borah	2013-16 (3years)	27.237	NMPB
	Aquilaria malaccensis Lamk				

	Himalayan Forest Research Institute, Shimla						
Sl. No.	Project Title	Principal Investigator	Duration (From - To)	Approved budget	Funding Agency		
124.	Field Evaluation of superior accessions of Jatropha curcas L. under	Dr. Sandeep	3 years (Sept 2008 -	(Rs in lakhs) 22.50 to	DBT, New		
	micro-mission programme in Himachal Pradesh.	Sharma	August 2011). Extended twice and accomplished during Sept 2013	31.34	Delhi		
125.	Production of quality planting material of <i>Aconitum heterophyllum</i> Wall. Ex Royle, <i>Podophyllum hexandrum</i> Royle & <i>Angelica glauca</i> Edgew and extension their cultivation technology to local communities.	Dr. Sandeep Sharma	Sept 2013 - 2016	33.27	NMPB, New Delhi		
126.	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	Sept 2013 - 2016	25.23	NMPB, New Delhi		
127.	Identification of extent of forest land in forest fringe villages	Dr. K. S. Kapoor	July 2011 - June 2014	HFRI, Component 32.03	NRAA, New Delhi		
128.	National Medicinal Plants Board (NMPB) – CONS. Project	Dr. Vaneet Jishtu , Sh. SS Kataik, Sh. Sandeep Sharma	Jan 2013 - March 2016	34	SFD, Shimla		
129.	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 Rana , Dr. R.K. Verma	May 2013 - April 2016	29.58	MoEF GoI,		
130.	Taxonomy and molecular analysis (through RAPD-PCR) of moths (Lepidoptera) of Cold Deserts (Spiti and Leh) of Indian Himalayas.	Dr. Pawan Rana, Dr. R.K. Verma	2012 -2015	19.68	MoEF New Delhi		

131.	High Altitude Transition Zones in Himachal Pradesh: Long-term Studies	Dr. Vaneet Jishtu,	July2012 - March	17	SFD, Shimla
	to Assess the Effects of Global Warming and Trials to Rehabilitate	Sh SS Kataik, Sh	2016		
	Degraded Sites in this Zone	PS Negi			
132.	Development of Gene Markers for High Seed Oil Content and dissecting	Dr. Sandeep	March 2013 - March	15.63, HFRI	DBT, New
	Molecular Basis of Female Flower Development in J. curcas Towards its	Sharma	2016	Component	Delhi, A
	Genetic Improvement for High Seed Yield			_	collaborative
					project between
					JUIT Solan and
					HFRI Shimla
133.	Identification of Distinct traits for DUS for conifers	Dr. Rajesh Sharma	July 2010 - June 2013,	11.31	Plant protect-ion
			but later extended upto		Variety &
			March 2014		Farmers' Right
					Autho-rity, New
					Delhi (PPV &
					FRA), New
					Delhi

	Institute of Forest Biodiversity, Hyderabad						
S1.	Project Title	Principal	Duration	Approved	Funding		
No.		Investigator	(From - To)	budget	Agency		
		_		(Rs in lakhs)			
134.	Raising of model nursery under the project of AP Medicinal & Aromatic	Dr. G.R.S. Reddy	April 2013-14	20	APMAPB		
	Board		_		Hyderabad		
135.	Vegetation Carbon pool assessment in AP : Phase-II	Dr. G.R.S. Reddy	2012-15	4.49	NRSC,		
					Hyderabad		

### Participants of XV Research Policy Committee (RPC) Meeting held on 6<sup>th</sup> to 8<sup>th</sup> March, 2014, AT Van Vigyan Bhawan, New Delhi

	vigyan bhawan, New Denn
1.	Dr. S.S. Garbyal, DG, ICFRE & Chairman, RPC
2.	Dr. G.S. Goraya, Dy. Director General (Research), ICFRE & Member Secretary RPC
3.	Dr. S.P. Singh, Dy. Director General (Admin), ICFRE
4.	Sh. Saibal Dasgupta, Dy. Director General (Extension) & DDG (Education), ICFRE
5.	Dr. N.S. Bisht, Director, International Cooperation, ICFRE & Director, RFRI, Jorhat
6.	Dr. P.P. Bhojvaid, Director, FRI Dehradun
7.	Dr. T.S. Rathore, Director, AFRI Jodhpur
8.	Dr. V. Ramakantha, Director, IWST Bangalore.
9.	Dr. N. Krishna Kumar, Director, IFGTB Coimbatore.
10.	Dr. U. Prakasham, Director, TFRI Jabalpur
11.	Dr. S. A. Ansari, Director, IFP Ranchi.
12.	Dr. K.S. Kapoor, GCR, HFRI Shimla (Director representative)
13.	Sh. M. R. G. Reddy, Director, IFB Hyderabad
14.	Dr. R.C. Dhiman, General Manager, WIMCO Ltd., Rudrapur (Uttarakhand)
15.	Dr. S.K. Srivastava, Joint Director, Botanical Survey of India (BSI), Dehradun
16.	Dr. Lal Singh, Himalayan Research Group, Shimla, (H.P)
17.	Shri. S.T.S. Lepcha, APCCF, Uttarakhand, Forest Department, Uttarakhand
18.	Dr. C.N. Pandey, Former Director IPIRTI Bangalore
19.	Prof. S.K. Sharma, (Former VC), Scientist Emeritus, IHBT (CSIR), Palampur – (H.P)
20.	Dr. Ashok Kr. Jain, IFS, Advisor (Rural Development), Planning Commission, New Delhi
21.	Dr. D.K. Sharma, Dy. Inspector General of Forest (RT), MOEF, GOI, New Delhi
22.	Dr. A. R. Nautiyal, HAPPRC, HNB Garhwal University, Srinagar – (Garhwal)
23.	Mr. T.R. Bisht, Bhagwan Gram Udhyog Smiti, Vill. Shyampur, Prem Nagar, Dehradun
24.	Dr. T.P. Singh, ADG (FCC), ICFRE Dehradun
25.	Dr. S.P.S. Rawat, Scientist F, ICFRE Dehradun
26.	Dr. Anita Srivastava, Scientist – E, BCC Division
27.	Dr.Vimal Kothiyal, ADG (RP), ICFRE Dehradun
28.	Dr. Sushma Mahajan, Scientist F / Special Director, ICFRE
29.	Sh. A.S. Rawat, Group Coordinator (R), FRI Dehradun
30.	Sh. T.P. Raghunath, Group Coordinator (R), IFGTB, Coimbatore
31.	Sh. M.R. Baloch, Group Coordinator (R), AFRI Jodhpur
32.	Sh. P. Subramanyam, Group Coordinator (R), TFRI Jabalpur
33.	Dr. R. K. Borah, Scientist – E and Group Coordinator (R), RFRI Jorhat
34.	Dr. N. Rama Rao, Scientist G, IFB, Hyderabad
35.	Dr. Sanjay Singh, Scientits E, IFP Ranchi
36.	Dr. R. Yasodha, Scientist – F, IFGTB Coimbatore
37.	Dr. Anandalakshmi, Scientist – D, IFGTB Coimbatore
38.	Dr. Rekha R. Warrier, Scientist, IFGTB Coimbatore
39.	Dr. A. Balu, Scientist – F, IFGTB Coimbato
40.	Dr. H.S. Ginwal, Scientist – F, FRI Dehradun
41.	Dr. R.S. Rawat, Scientist – C, ICFRE, Rapporteur
42.	Dr. G. C. Pant, DCF, Van Vigyan Bhawan, New Delhi, ICFRE
43.	Dr. Danish Saheb, Research Associate, ICFRE

Appendix - II

#### XV RESEARCH POLICY COMMITTEE (RPC) MEETING OF ICFRE

Date	-	6 <sup>th</sup> to 8 <sup>th</sup> March, 2014
Venue	-	Meeting Hall, Van Vigyan Bhawan, New Delhi

Day 1: 6-03-2014	Programme	
09.45 -10.15	Introduction and Presentation by DDG (R)	
	Remarks by DG, ICFRE	

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

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

Thrust Area I Ma	naging Forest and Forest Products for Livelihood Support and Economic Growth
10.15 - 11.00	Forest Research Institute, Dehradun (ongoing, change request, new) (45 Minutes)
	11.00-11.20 Tea
11.20 - 11.50	Institute of Forest Genetics and Tree Breeding, Coimbatore (ongoing-,change request, new-) (30 Minutes)
11.50-12.25	Arid Forest Research Institute, Jodhpur (ongoing, change request, new) ( 35 Minutes)
12.25 - 12.50	Himalayan Forest Research Institute, Shimla (ongoing, change request, new) ( 25 Minutes)
12.50 - 01.30	Tropical Forest Research Institute, Jabalpur (ongoing, change request, new) (40 Minutes)
	01.30 - 02.30 Lunch
02.30 - 03.15	Institute of Wood Science & Technology, Bangalore (ongoing, change request, new (45 Minutes)
03.15 - 03.40	Rain Forest Research Institute, Jorhat (ongoing, change request, new) (25 Minutes)
03.40 - 04.00	Institute of Forest Productivity, Ranchi(ongoing, change request, new) (20 Minutes)
04.00 -0 4.15	Institute of Forest Biodiversity, Hyderabad (ongoing, change request, new) (15 Minutes)
	04.15 - 4.40 Tea
Thrust Area III- F	orest and Climate Change
04.40 - 04.50	Forest Research Institute, Dehradun (ongoing, change request, new) (10 Minutes)
04.50 -05.00	Institute of Forest Genetics and Tree Breeding, Coimbatore (ongoing, change request, new) (10 Minutes)
05.00 - 05.10	Arid Forest Research Institute, Jodhpur(ongoing, change request, new) (10 Minutes)
05.10 - 05.15	Himalayan Forest Research Institute, Shimla (ongoing, change request, new) (5 Minutes)
	Tropical Forest Research Institute, Jabalpur (ongoing, change request, new) ( No Project)
05.15 - 05.20	Institute of Wood Science & Technology, Bangalore (ongoing, change request, new) ( 5 Minutes)
05.20 - 05.30	Rain Forest Research Institute, Jorhat (ongoing, change request, new) (10 Minutes)
	Institute of Forest Productivity, Ranchi (ongoing, change request, new) (No Project)
	Institute of Forest Biodiversity, Hyderabad (ongoing, change request, new) ( No Project)

	Appendix - II
	Day 2 : 7-03-2014
Thrust Area II Bi	odiversity Conservation and Ecological Security
09.00 - 09.40	Forest Research Institute, Dehradun (ongoing, change request, new) (40 Minutes)
09.40 - 10.00	Institute of Forest Genetics and Tree Breeding, Coimbatore (ongoing, change request, new) (20 Minutes)
10.00 -10.20	Arid Forest Research Institute, Jodhpur (ongoing, change request, new) (20 Minutes)
10.20 -10.40	Himalayan Forest Research Institute, Shimla (ongoing, change request, new) (20 Minutes)
10.40 -11.10	Tropical Forest Research Institute, Jabalpur (ongoing, change request, new) (30 Minutes)
	11.10 -11.30 Tea
11.30 - 11.35	Institute of Wood Science & Technology, Bangalore (ongoing, change request, new) (5 Minutes)
11.35 - 12.05	Rain Forest Research Institute, Jorhat (ongoing, change request, new) (30 Minutes)
12.05 -12.10	Institute of Forest Productivity, Ranchi (ongoing, change request, new) (5 Minutes)
12.10 - 12.20	Institute of Forest Biodiversity, Hyderabad (ongoing, change request, new) (10 Minutes)
Thrust Area IV	Forest Genetics Resources Management and Tree Improvement
12.20 - 12.50	Forest Research Institute, Dehradun (ongoing, change request, new) (30 Minutes)
12.50 - 01. 30	Institute of Forest Genetics and Tree Breeding, Coimbatore (ongoing, change request, new) (80 Minutes)
	01.30 -02.30 Lunch
02.30 - 03.10	IFGTB Contd
03.10 - 03.30	Arid Forest Research Institute, Jodhpur (ongoing, change request, new) (20 Minutes)
03.30 - 03.40	Himalayan Forest Research Institute, Shimla (ongoing, change request, new) (10 Minutes)
	03.40 – 04.00 Tea
04.00 - 04.25	Tropical Forest Research Institute, Jabalpur (ongoing, change request, new) (25 Minutes)
04.25 - 04.35	Institute of Wood Science & Technology, Bangalore (ongoing, change request, new) (10 Minutes)
04.35 - 04.45	Rain Forest Research Institute, Jorhat (ongoing, change request, new) (10 Minutes)
04.45 - 05.15	Institute of Forest Productivity, Ranchi (ongoing, change request, new) (30 Minutes)
05.15 - 05.30	Institute of Forest Biodiversity, Hyderabad (ongoing, change request, new) (15 Minutes)

Day 3: 8-03-2014			
10.00 -12.00 Wrap up of RPC and finalization of proceedings of RPC			
	Remarks by RPC member and Directors of Institutes		
	Closing remarks by DDG (R), ICFRE		
	Concluding Remarks by DG, ICFRE		