

PREAMBLE BY THE CHAIRMAN

Dr. P.K. Mishra, Director, IISWC and Chairman of Institute Research Committee (IRC) welcomed the Heads of the Divisions, Heads of Research Centres and Scientists from Head Quarter and eight research centres to the IRC Meeting of 2016. He appraised the house that the new concept is emerging in government sector having no plan fund from next financial year. The mandate has been revised for the Institute by the Council with three objectives. He laid emphasis to work in national interest to fulfil the aspiration of the Council. The commitment for the work to be done would be evaluated more vigorously. It is like doing work for ones' own business while chalking out programme for next year. He welcomed new Scientists joining the Institute. He further thanked to PME Cell for doing their job within time. In case facing any constraint while doing ones' job, one should solve it in a friendly manner. He told to start with the new programmes, find path and ways to proceed further.

The TSP programme is so visible that whatever knowledge we have, we get an outlet to transfer to the beneficiaries. Gainers under TSP are very happy. This is the time to start collecting research data for formulating policy paper on TSP Programme. Our Institute has taken lead in PMKSY –a flagship programme of GOI. The team of Scientists of the Institute visited 7-8 states, imparted training and also learnt from it. Therefore, we should bring out template to plan PMKSY under Institute level. In spite of shortage of Technical personnels and staff, we should learn skill of managing perfectly the task assigned to us. We may hire resource persons. The ToT programme may be done in villages reflected in *Mera Gaon Mera Gaurav* programme.

There is time limit commitment under World Bank funded programme. The responsibilities are increasing day by day with Institute. It is worthy to note that our Institute is leading National Mission on Sustaining Himalayan Eco-system (NMSHE) project in N-W Himalayan region. Besides three projects of ICAR are operating at our Institute and its centres.

Our main objective is to address issues of land degradation and restoration. Farmers' roadmap for zone -I developed by the Institute is appreciable. The new programmes, one state government funded, i.e. ravine reclamation at Kota and the other World Bank funded- the watershed monitoring by Bellary centres are worth mentioning. Dr. Kaushal has brought one International project on bamboo cultivation. Soil health card has been initiated. The tentative budget estimate for each project should be annexed by the PIs while submitting RPP-II and RPP-III. Further each scientist should record project wise budget expenditure available with them. We hope that it would be fully utilized by farmers. Institute has brought out a good number of publications. There is a need to record contribution of each author in the certificate while submitting article/abstract for seeking approval. The conduct of training should be objective specific. Our Institute has got many awards, but there is always scope for better. We should keep a track on time management while undertaking R& D work.

If we decide our priorities of research during deliberation of six days in IRC then we can work upon comfortably during 365 days. We should focus on our priorities keeping in mind the national priorities as ours is a National Institute. So one should take up projects addressing national issues by thoroughly reviewing national as well as international literature. We should also focus upon the need of the society while planning research programmes. One should take up research by keeping national prospective in mind so as to support food security by protecting the environment while preserving and enhancing the livelihood benefits. I wish a fruitful deliberations from all of you.

AGENDA & PROGRAMME OF IRC MEETING – 2016

DATE (Day)	TIME	AGENDA & PROGRAMME
02.05.2016 (Monday)	2:30 pm	Welcome and opening remarks of the Chairman
	3:00 pm	Recommendations of RAC-2016 & Status of new proposals agreed - Member Secretary, RAC
	3:15 pm	Action Taken Report on the actions assigned in the IRC Meeting, 2015 - Member Secretary, IRC
	4:00 pm	Tea Break
	4:15 pm	Presentation & Discussion on proper filling of RPP Proformae (Annexure I to X) & RPP IV Proforma received from the Council - Dr. G.C. Sharma, OIC, PME Cell & Chairman, Evaluation Committee - Mr. S.K. Sinha, Sr. T.O. & Member-Secretary, Evaluation Committee
	4:45 pm	Presentation of Core Projects by the leaders of core groups 30 minutes will be given to each core project (20 minutes for presentation and 10 minutes for discussion and comments) - Sl.No.10 (Erosion productivity) (P-1) : Dr. D. Mandal - Sl.No. 46 (Evaluation of hydrological) (P-3) : Dr. J.M.S. Tomar - Sl.No. 67 (Field evaluation of trenches) (P-4) : Dr. P.R. Bhatnagar - Sl.No. 69 (Multiple criteria decision) (P-5) : Dr. Pradeep Dogra
03.05.2016 (Tuesday)	10:00 am	Presentation of Externally funded projects by the Project Leaders 20 minutes will be given to each project (15 minutes for presentation and 05 minutes for discussion and comments) - Sl. No. 6 (P-1) - Dr. N.K. Sharma - Sl. No. 7 (P-1) - Dr. D. R. Sena - Sl. No. 8 (P-1) - Dr. D.R. Sena - Sl. No. 11 (P-1) - Dr. D. Mandal
	11:15 am	Tea Break
	11:30 am	Presentation of Externally funded projects by the Project Leaders - Sl. No. 52 (P-3) - Dr. P.R. Ojasvi - Sl. No. 54 (P-3) - Dr. Ambrish Kumar - Sl. No. 61 (P-3) - Dr. B.K. Rao - Sl. No. 66 (P-4) - Dr. S. Manivannan - Sl. No. 75 (P-6) - Dr. Lakhani Singh
	1:15 pm	Lunch Break
	2:15 pm	Presentation of Projects due for completion (to be concluded) in 2015-16 by the Project Leaders 20 minutes will be given to each project (15 minutes for presentation and 05 minutes for discussion and comments) - Sl.No. 5 (P-1) - Dr. G.L. Meena - Sl.No. 14 (P-1) - Dr. K. Rajan - Sl.No. 15 (P-2.1) - Dr. Harsh Mehta - Sl.No. 16 (P-2.1) - Dr. A.C. Rathore - Sl.No. 17 (P-2.1) - Dr. B.N. Ghosh
	4:00 pm	Tea Break
	4:15 pm	Presentation of Projects due for completion (to be concluded) in 2015-16 by the Project Leaders - Sl.No. 18 (P-2.1) - Dr. A. Raizada - Sl.No. 20 (P-2.1) - Dr. Sharmistha Pal - Sl.No. 21 (P-2.1) - Dr. Pawan Sharma - Sl.No. 27 (P-2.2) - Dr. A.C. Rathore - Sl.No. 29 (P-2.2) - Dr. J. M.S. Tomar

		<ul style="list-style-type: none"> - Sl.No. 30 (P-2.2) - Dr. J.M.S. Tomar - Sl.No. 36 (P-2.2) - Dr. Ram Prasad
04.05.2016 (Wednesday)	10:00 am	<p>Presentation of Projects due for completion (to be concluded) in 2015-16 by the Project Leaders</p> <ul style="list-style-type: none"> - Sl.No. 41 (P-2.2) - Mr. H.R. Meena - Sl.No. 42 (P-2.2) - Dr. S. Kala - Sl.No. 43 (P-2.2) - Dr. S. Kala - Sl.No. 49 (P-3) - Dr. V.C. Pande - Sl.No. 53 (P-3) - Dr. Ambrish Kumar
	11:30 am	Tea Break
	11:45 am	<p>Presentation of Projects due for completion (to be concluded) in 2015-16 by the Project Leaders</p> <ul style="list-style-type: none"> - Sl.No. 55 (P-3) - Dr. K.K. Sharma - Sl.No. 58 (P-3) - Dr. Pankaj Panwar - Sl.No. 59 (P-3) - Dr. G.L. Meena - Sl.No. 60 (P-3) - Dr. S. Manivannan - Sl.No. 63 (P-3) - Dr. P.R. Ojasvi
	1:30 pm	Lunch Break
	2:30 pm	<p>Presentation of projects approved in IRC Meeting, 2015 by the concerned Heads 10 minutes will be given to each project (05 minutes for presentation and 05 minutes for discussion and comments)</p> <ul style="list-style-type: none"> - Sl.No. 1 (P-1) & 50 (P-3) - Head, SS&A Division - Sl.No. 2 (P-1), 9 (P-1), 70 (P-5) & 72 (P-6) - Head, H&E Division - Sl.No. 34 (P-2.2) & 51 (P-3) - I/C Head, Plant Science Division
	4:00 pm	Tea Break
05.05.2016 (Thursday)	4:15 pm	<p>Presentation of projects approved in IRC Meeting, 2015 by the concerned Heads</p> <ul style="list-style-type: none"> - Sl.No. 56 (P-3) - Head, Research Centre, Agra - Sl.No. 35 (P-2.2) - Head, Research Centre, Bellary - Sl.No. 3 (P-1) & 39 (P-2.2) - Head, Research Centre, Datia - Sl.No. 23 (P-2.1), 40 (P-2.2), 47 (P-3) & 71 (P-5) - Head, Research Centre, Koraput - Sl.No. 24 (P-2.1) & 65 (P-4) - Head, Research Centre, Kota - Sl.No. 48 (P-3) & 74 (P-6) - Head, Res. Centre, Udhagamandalam - Sl.No. 26 (P-2.1) & 62 (P-3) - Head, Research Centre, Vasad
	10:00 am	<p>Presentation of Observational Trials listed on page no. 36 of IRC proceedings 2015 20 minutes will be given to each project (15 minutes for presentation and 05 minutes for discussion and comments)</p> <ul style="list-style-type: none"> - Sl.No. 1 (Determining-----profitability) - Dr. N.K. Sharma - Sl.No. 2 (Evaluation-----systems) - Dr. N.K. Sharma - Sl.No. 3 (Evaluation-----practices) - Dr. M.N. Ramesha - Sl.No. 4 (Development-----India) - Dr. N.K. Sharma
	11:15 am	Tea Break
	11:30 am	<p>Presentation of New Project Proposals agreed by RAC 2016 by the Project Leaders 30 minutes will be given to each project (20 minutes for presentation and 10 minutes for discussion and comments)</p> <ul style="list-style-type: none"> - Sl.No.1 (Improvisation -----Himalayas) - Dr. D.V. Singh - Sl.No.2 (Assessing -----scenario) - Dr. Lakhani Singh - Sl.No.3 (Analysing-----watersheds) - Mr. Rajesh Bishnoi - Sl.No.4 (Assessment-----Himalayas) - Dr. Vibha Singhal
	1:30 pm	Lunch Break
	2:30 pm	<p>Presentation of New Project Proposals agreed by RAC-2016</p> <ul style="list-style-type: none"> - Sl.No.5 (Biological-----Himalayas) - Dr. Vibha Singhal - Sl.No.6 (Emerging-----Himalayas) - Mr. D.M. Kadam

		- Sl.No.7 (Improving -----bio-fertilizers)	- Dr. A.K. Parandiyal
	4:00 pm	Tea Break	
	4:15 pm	Presentation of New Project Proposals agreed by RAC-2016	
		- Sl.No.8 (Evaluation-----ravine area)	- Dr.Dileep Kumar
		- Sl.No.9 (Assessment-----lands)	- Dr. R.B. Meena
		- Sl.No.10 (Socio-economic -----area)	- Dr.D.C. Meena
		- Sl.No.11(Investigations -----ravine)	- Dr. K.K. Sharma
		- Sl.No.12(Evaluation -----ravine)	- Dr. R.K. Dubey
06.05.2016 (Friday)	10.:00 am	Presentation of New Project Proposals agreed by RAC-2016	
		- Sl.No.13 (Evaluation-----Karnataka)	- Er. B.S. Naik
		- Sl.No.14(Regulated-----vertisols)	- Mr. A.S. Morade
		- Sl.No.15(Impact-----Deccan)	- Dr. M. Prabhavathi
	11:30 am	Tea Break	
	11:45 am	Presentation of New Project Proposals agreed by RAC-2016	
		- Sl.No.16(Assessing -----Ghats)	- Dr. H. Gowda
		- Sl.No.17 (Evaluation-----semi-regions)	- Dr. S. Kala
		- Sl.No.18(Resource----- amendments)	- Dr. I. Rashmi
		- Sl.No.19 (Resource-----Gujarat)	- Dr. V. Kakade
	1:45 pm	Lunch Break	
	2:45 pm	Presentation of Externally Funded/ Extra Mural New Projects by the Project Leaders 20 minutes will be given to each project (15 minutes for presentation and 05 minutes for discussion and comments)	
	- Externally funded (KWDP- II)	- Head of Bellary Centre	
	- Externally funded (Model Ravine Area)	- Head of Kota Centre	
	- Extra Mural (ICT Network)	- Dr. Lakhan Singh	
	- Extra Mural (Mahi & Chambal Ravine)	- Dr. V.C. Pande	
	- Extra Mural (Plastic Check Dams)	- Dr. B.K. Rao	
4:30 pm	Tea Break		
4:45pm	Presentation & Discussion on ERP, MIS & FMS		
	- CAO, SFAO & Ms. Chayna Jana		
5:15 pm	Presentation & Discussion on TSP running at Divisions & Centres		
	- Dr. Charan Singh, Principal Scientist & Co-ordinator of TSP		
5:45 pm	Presentation & Discussion on ToT at Headquarters & Centres		
	- Dr. Bankey Bihari, Principal Scientist (Agri. Extension)		
6:15 pm	Presentation & Discussion on Training, Capacity Building & Mera Gaon Mera Gaurav at Headquarters & Centres		
	- Dr. Lakhan Singh, Head, HRD & SS Division		
07.05.2016 (Saturday)	10:00 am	Presentation of Ongoing (to be continued) projects by the Project Leaders 15 minutes will be given to each project (10 minutes for presentation and 05 minutes for discussion and comments)	
		- Sl.No. 4, 12, 13 (P-1)	
		- Sl.No. 19, 22, 25 (P-2.1)	
	11:30 am	Tea Break	
	11:45 am	Presentation of Ongoing (to be continued) projects	
		- Sl.No. 28, 31, 32, 33, 37, 38, 44 (P-2.2)	
1:30 pm	Lunch Break		
2:30 pm	Presentation of Ongoing (to be continued) projects		
	- Sl.No. 45, 57 (P-3)		
	- Sl.No. 64, 68 (P-4)		
	- Sl.No. 73 (P-6)		
3:45 pm	Tea Break		

4:00 pm	Presentation of status of Hydrological Instruments at the Headquarters and Research Centres as per earlier inventory - Dr. P.R. Ojasvi, Head, H&E Division
4:15 pm	Presentation of Performance Indicator of Research Centres & Divisions - Mr. Suresh Kumar, Scientist (Ag. Econ.), Research Centre, Bellary
4:30 pm	Presentation & Discussion on ITMU activities - Dr. Harsh Mehta, OIC, ITMU
4.45 pm	Any other presentation with the permission of Chairman
5.15 pm	Plenary Session, Concluding Remarks and Recommendations by the Chairman
5:45 pm	Vote of Thanks - Member Secretary, IRC

(Note: Sl.No. of the projects is as per IRC meeting proceedings, 2015)

IMPORTANT GUIDELINES FOR PRESENTATION:

1. Projects concluded in 2015-16 should be presented giving overall findings under the project till date and conclusions in terms of stated short term / long term objectives clearly spell out the findings and possibilities for upscaling, domain area, mechanism and resources required. Introduction, justification, review should not be presented. Precise write-up and recommendations (half page, one para) emerging out of the projects concluded in 2015-16 should be presented in last slide by the project leader and its hard copy should be submitted to PME Cell.
2. While making the presentation of the progress, the number of slides be restricted to **maximum of 10 only** including figures / photographs covering title, leader and associates, objectives, achievements during the year for all projects.
3. Ongoing project presentation be focused on activities planned, target fixed vis-à-vis achievements made during the year alongwith deviation from normal / past trend, if any, with drivers of the deviations only. Introduction, review etc. may be presented in brief.
4. New project proposals must be based on extensive review, patent search, technical rigour, resource availability and project limit prescribed by the ICAR / IRC of the Institute. It is mandatory for the PIs and Heads of the Research Centres & Divisions to ensure availability of all the resources required for new projects.
5. It will be more appropriate if presentation is made on one-is-to-one mapping with respect to short term, medium term, long term objectives and possible outcome or impacts.
6. Any change in Leader or associates be presented before the House in a slide form at the end of the presentation of project and get approval of the House for the proposed modifications.
7. In case the project requires extension period, the same may be presented to the House with proper justification in slide form.
8. **The IRC at the Research Centre/ Division level should be completed before coming to the IRC Meeting at the Headquarter and dates may be reported so that one of the Theme Leaders may attend the same. In the IRC of the Research Centre/ Division level, the presentation of the projects must be well rehearsed, so that it may be completed smoothly within the stipulated time frame.** It may be brought to the notice of all scientists of the Research Centre/Division, that due to paucity of time, the scientist **not able to present his presentation within stipulated time will not be given extra time.**
9. Programme Leader (s) will work as moderator(s) during presentation, discussion and preparing comments on the project, which is mandatory for each and every project on behalf of IRC. The mandatory comments for a project must be finalized with active participation and comments of concerned Head of Division (as per Project Leader's field/specialization), Programme Leader, and OIC (PME Cell) which will be approved by the Competent Authority during the IRC.

RECOMMENDATIONS OF RAC – 2016

1. RAC recommended that monetary losses from water erosion need to be reassessed considering the latest minimum support price of rainfed crops cultivated in the country.
(Action: Dr. P. Dogra to finalize and present before RAC)
2. RAC reiterated its earlier recommendation and emphasized that for effective planning of the watershed development programmes, information on runoff and soil loss from various experiments/projects of the Institute under different agro-climatic regions of the country should be documented.
(Action: Dr. P.R. Ojasvi to coordinate and compile the information from different Divisions, Centres and published reports and present before RAC)
3. RAC suggested that climate change projection maps at usable resolution should be prepared in the light of various GCM scenarios for vulnerability analysis.
(Action: Dr. D.R. Sena)
4. RAC stressed on developing Decision Support System (DSS) for effective planning, design and management of Resource Conservation Measures.
(Action: Dr. P.R. Ojasvi to prepare the report based on completed project on DSS and present the report to the RAC)
5. RAC emphasized for assessment and documentation of the intangible benefits of NRM interventions in different projects in different climatic regions.
(Action: Dr. B.L. Dhyani to coordinate for compiling the information on the work done in the institute and to plan future course of action)

OTHER IMPORTANT OBSERVATIONS OF RAC

- Hydrological modeling of the watersheds, especially runoff and sediment may be done by employing the various models developed by the different organizations.
(Action: Dr. P.R. Ojasvi)
- Huge database available with the institute may be used for modelling for more general applications.
(Action: All Theme Leaders)
- Calibration functions of hydrological responses of the watersheds/plots should be developed subject to sufficient availability of data related to runoff events.
(Action: All PI's of related projects)
- Studies on use of jute blended material developed by NIRJAFT in landslide, mulching, riverside and horticulture application should be initiated.
(Action: Dr. P.R. Ojasvi and Dr. Harsh Mehta)
- Studies on enhancing water productivity and nutrient use efficiency (NUE) by placement of nutrient and water in root zone should be undertaken.
(Action: Dr. N.K. Sharma)
- Collection of runoff and soil loss data should also be recorded in winter season and efforts should be made for continuous monitoring of hydrologic data over long period (Action: All Heads)
- Studies on root dynamics, rooting behaviour, root density, and root geometry etc. needs to be strengthened.
(Action: All Heads and concerned PI's)
- Research works including gaps on ravine areas by the Institute needs to be compiled in the form of a Bulletin.
(Action: Dr. R.K. Singh)

**ACTION TAKEN ON
“SALIENT RECOMMENDATIONS OF IRC MEETING – 2015”**

S.No	Action Assigned	Action Taken Report
1.	Runoff and soil loss data may be collected by Dr. D.R. Sena, Principal Scientist (Engg.) from all Research Centres for developing Curve Number for the country. A workshop may be held by Dr. D.R. Sena for transmitting the methodology of Curve Number to other Centres by September, 2015. A bulletin may be published on the results obtained from the concluded project entitled “Standardization of runoff and peak flow parameters for different soil and water conservation structures under Indian condition” by December, 2015 and RPP IV may also be prepared on this project. (Action: Dr. D.R. Sena)	The assignment has been completed.
2.	A copy of published bulletin on runoff and erosion prediction models may be submitted by Dr. P.R. Ojasvi, Head, H&E Division by August 31, 2015 positively. (Action: Dr. P.R. Ojasvi)	The action has not been taken and it is again assigned by the IRC-2016 to Dr. P.R. Ojasvi to complete the assignment at the earliest.
3.	A bulletin may be published for documenting the procedure for delineation of Mahi ravines and the methodologies of RS/GIS used under the related concluded project entitled “Delineation and characterization of Mahi ravines using remote sensing and GIS in terms of resource potential planning” by Dr. Gopal Kumar, Scientist (Soils) by August 31, 2015. (Action: Dr. Gopal Kumar)	The delineation and characterization of Mahi ravine in Gujarat has been completed.
4.	A technology brochure on concluded project on recharge filter may be published by Dr. Gopal Kumar, Scientist (Soils) by August 31, 2015. (Action: Dr. Gopal Kumar)	The action has not been taken and it is again assigned by the IRC-2016 to Dr. B.K. Rao, Dr. D.R. Sena and Head of Vasad Centre to complete the assignment by Sept. 30, 2016.
5.	A bulletin/brochure on results obtained from concluded project entitled “Resource conservation by alley cropping in shifting cultivated degraded lands of Eastern Ghats” may be published by Dr. P.P. Adhikary, Scientist (Soils) by October, 2015. (Action: Dr. P.P. Adhikary)	The action has been taken.
6.	A bulletin from the concluded project entitled “Analysis of climatic data for evolving drought indices towards planning sustainable cropping systems in Bundelkhand” may be published by Dr. P.P. Adhikary, Scientist (Soils) by October, 2015. (Action: Dr. P.P. Adhikary)	The action has been taken.
7.	The technology generated from the concluded project entitled “Productive utilization of ravines through introduction of horticulture and improved planting materials” may be published by Dr. A.K. Parandiyal, Principal Scientist (Forestry) as a bulletin/brochure by October, 2015. The technology may be transferred to farmer’s field under ToT programme and RPP IV may also be prepared on this project. (Action: Dr. A.K. Parandiyal)	Draft of bulletin has been prepared. Printing is under process.
8.	One unit of field level sediment sampler developed by Dr. Gopal Kumar, Scientist (Soils) at Research Centre, Vasad may be sent to Headquarters, Dehradun which may be tested by Er. S. Patra, Scientist (Engg.) by August, 2015. (Action: Dr. Gopal Kumar and Er. S. Patra)	The action has not been taken and it is again assigned by the IRC-2016 to Er. S. Patra and Dr. D.R. Sena to complete the assignment by Sept. 30, 2016.
9.	For recommendation No.1 of RAC - “The institute should formulate package of practices for rehabilitation of ravine lands compiling work done on ravine lands”, Dr. R.K. Singh, Head, Research Centre, Kota may take action. (Action: Dr. R.K. Singh)	The action has been taken. The book on ravine reclamation may be brought out.

10.	For recommendation No.2 of RAC - “RAC reiterated its earlier stand on formulation of a project on the use of natural fibre based geo/agro-textiles by the Institute in collaboration with NIRJAFT in different Agro-Ecological Regions of country using proper planting material suited to the local environmental condition”, a team of scientists and technical officer comprising Dr. P.R. Ojasvi, Dr. Ramanjeet Singh, Dr. S.K. Dubey, Dr. A. Raizada, Dr. V.K. Bhatt, Dr. Pankaj Panwar, Dr. S. Manivannan, and Mr. Prakash Singh (T.O.) will visit NIRJAFT for exploring the possibilities of using their expertise. Dr. Harsh Mehta, Pr. Scientist (Plant Breeding) will co-ordinate as Member Secretary. (Action: Dr. Harsh Mehta and above mentioned scientists and technical officer)	The action has been taken partially.
11.	For recommendation No. 3 of RAC - “Present status of the Shifting Cultivation in Odisha needs to be documented with suggested action plan”, Dr. M. Madhu, Head, Research Centre, Koraput may take action. (Action: Dr. M. Madhu)	The action has been completed however, an assignment for preparing policy paper has been given by the IRC.
12.	For recommendation No. 4 of RAC - “Headquarters and each Centre should have arboretum and a nursery to maintain germplasm of important trees, shrubs, grasses and medicinal plants for conducting long term studies on resource conservation, soil health improvement, biomass optimization, bio-energy flow, and carbon sequestration and raising quality planting material for future use. Status of maintaining such germplasm may also be checked with CAFRI and NBPGR”, all Heads of Research Centres may take action. Dr. O.P. Chaturvedi, Head, Plant Science Division will co-ordinate. (Action: Dr. O.P. Chaturvedi and all Heads of Research Centres)	The action has been taken partially.
13.	For recommendation No. 5 of RAC - “The impact of NRM measures on productivity enhancement, increase in water availability and socio-economic conditions of the farmers needs to be assessed for Datia and Jhansi Districts by the Research Centre, Datia”, Head, Research Centre, Datia, Dr. Rajeev Ranjan, Scientist (Soils) and Dr. Om Prakash, Principal Scientist (Ag. Extn.) may take action. (Action: Head, Research Centre, Datia, Dr. Rajeev Ranjan and Dr. Om Prakash)	The action has been taken.
14.	“Mera Gaon, Mera Gaurav” is to be initiated under both ToT and TSP programmes. The ToT need not be taken where TSP programmes are going on. Clean India campaign is to be done under ToT. Those projects that have generated technologies adoptable by the concerned stakeholders through ToT must submit RPP IV. (Action: Dr. Charan Singh, Dr. Bankey Bihari and all Heads of Research Centres/ Divisions)	The action has been taken.
15.	Half page write-up and recommendations emerging out from projects concluded in 2014-15 should invariably be submitted by the leader of projects through their respective Heads by August 31, 2015 positively. (Action: Leader of projects concluded in 2014-15 and All Heads of Research Centres/Divisions)	The action has been taken.
16.	A hard copy of the published papers during the year 2015 should be submitted to the OIC, PME Cell in a bunch of all papers by all Heads of Research Centres and Divisions during the submission of the document of Annual Report 2015-16 alongwith latest NAAS rating. Soft copies of these papers should be submitted to OIC, AKMU for uploading on the Institute website. In case, there is more than one author from the Institute, only senior author should submit the paper. (Action: All Heads of Research Centres/Divisions)	The action has been taken.
17.	Complete Annual Report of Research Centres/Divisions should be submitted by all the Heads as per Annual Report format giving all captions (tables, photos and figures) and executive summary in English and Hindi by February 28, 2016 positively. (Action: All Heads of Research Centres/Divisions)	Complete Annual Report has been received from all Research Centres / Divisions.

SALIENT RECOMMENDATIONS OF IRC MEETING – 2016

1. Action is again assigned by the IRC-2016 to Dr. P.R. Ojasvi, Head, H&E Division to explore the possibilities with assigned printers for printing the bulletin on runoff and erosion prediction models at the earliest otherwise, it will be printed by the Institute.
(Action: Dr. P.R. Ojasvi)
2. Due to non-completion of action assigned to Dr. Gopal Kumar, the action is again assigned by the IRC-2016 that a bulletin / brochure may be published on the concluded project entitled “Design and development of site specific artificial groundwater recharge filters” by Dr. B.K. Rao, Sr. Scientist (Engg.), Dr. D.R. Sena, Pr. Scientist (Engg.) and Head of Vasad Centre with the help of Dr. Gopal Kumar, Ex-Scientist (Soils), Research Centre, Vasad by Sept. 30, 2016 positively.
(Action: Dr. B.K. Rao, Dr. D.R. Sena and Head of Vasad Centre)
3. Action is again assigned by the IRC-2016 that the field level sediment sampler may be tested with tipping bucket during monsoon season by Er. S. Patra, Scientist (Engg.) and Dr. D.R. Sena, Pr. Scientist (Engg.) for bringing it to the full functionality before Sept. 30, 2016 positively.
(Action: Er. S. Patra and Dr. D.R. Sena)
4. The components of DSS software may be developed progressively for the end users and presented in the next IRC meeting by Dr. P.R. Ojasvi, Head, H&E Division.
(Action: Dr. P.R. Ojasvi)
5. A bulletin / brochure may be published on the results obtained from concluded projects entitled “Productivity enhancement in fruit and flower based two tier horticulture systems through integrated nutrient management and mulching” and “Enhancement of guava productivity through canopy management and mulching in rainfed bouldery riverbed lands” by Dr. A.C. Rathore, Sr. Scientist (Hort.) by September 30, 2016.
(Action: Dr. A.C. Rathore)
6. A technical bulletin may be published on the results obtained from the project entitled “Peach based agri-horticulture land use system for degraded Shiwaliks” by Dr. Ram Prasad, Pr. Scientist (Hort.) by Sept. 30, 2016.
(Action: Dr. Ram Prasad)
7. A technical bulletin may be published on the results obtained from the concluded project entitled “Enhancement in land productivity and livelihood security of small farmers of Nilgiris through multiple use of harvested water” by Dr. S. Manivannan, Pr. Scientist (Engg.) by Sept. 30, 2016. The technology may be transferred to farmer’s fields under ToT programme. Economics may be worked out by Mr. Suresh Kumar, Scientist (Ag. Eco.), Research Centre, Bellary.
(Action: Dr. S. Manivannan and Mr. Suresh Kumar)
8. A policy paper may be brought out from the concluded project entitled “Prototype field study on application of potentially important Jute geo-textiles for hill slope stabilization” for Nilgiris area alongwith economic returns by Dr. S. Manivannan, Pr. Scientist (Engg.). Results should be transferred under TSP & ToT programmes. A new project may be formulated with blended geo-textiles in collaboration with NIRJAFT.
(Action: Dr. S. Manivannan)
9. A policy paper on “Present status of shifting cultivation in Odisha and to suggest action plan” may be prepared by Dr. M. Madhu, Head, Research Centre, Koraput by July 31, 2016.
(Action: Dr. M. Madhu)

10. A policy paper may be prepared from the concluded project entitled “Developing SALT (Sloping Agricultural Land Technology) for resource conservation and economic up-liftment in Shiwaliks” linking with PMKSY by Dr. Pankaj Panwar, Pr. Scientist (Forestry). Probability analysis of getting water may be worked out. Besides, small skill development manual for pond related to Soil & Water Conservation may be prepared. RPP IV may also be submitted.
(Action: Dr. Pankaj Panwar)
11. Preparation of Ravine Atlas of Chambal, Mahi and Yamuna ravines has to be initiated and to be reported thereafter in the next IRC meeting by Dr. R.K. Singh, Head, Research Centre, Kota.
(Action: Dr. R.K. Singh)
12. “Mera Gaon Mera Gaurav” and “Clean India Movement” are to be done very seriously under both TSP and ToT programmes of the Institute which should be co-ordinated by the Nodal Officers Dr. Charan Singh, Pr. Scientist (Forestry) and Dr. Bankey Bihari, Pr. Scientist (Ag.Extn.), respectively identified for these programmes.
(Action: Dr. Charan Singh, Dr. Bankey Bihari and all Scientists/Heads of Research Centres / Divisions)
13. Document of 60 years research in Soil and Water Conservation may be published by the Head, Research Centres, Agra, Bellary, Kota, Udhamandalam & H&E and HRD&SS Divisions on or before Oct., 2016. Similar document for 25 years may be published by the Head, Research Centre, Datia by October, 2016.
(Action: Head, Research Centres, Agra, Bellary, Datia, Kota, Udhamandalam and Head of H&E & HRD&SS Divisions)
14. Gauging devices / Silt Monitoring Stations (SMS) should be maintained as working condition at Headquarters / Research Centres by the scientists of Engineering discipline. Before start of *Kharif season*, the condition of SMS should be updated by the engineering scientists associated with the projects alongwith leader of project and details should be sent to the Head, H&E Division by June 30, 2016 positively.
(Action: All Scientists and Head, H&E Division)
15. An Observational Trial on geo-jute textiles may be carried out in collaboration with NIRJAFT by Headquarter and all Research Centres.
(Action: All Heads of Research Centres / Divisions)
16. Digitization of data of research farm regarding spatial and temporal attributes may be done every year at the Headquarters and all Research Centres and submitted.
(Action: OIC (Research Farm) of Headquarters and all Research Centres)
17. Crop calendar on soil and water conservation may be developed by all Research Centres and Division of H&E, HRD&SS and Plant Science by June 30, 2016.
(Action: All Heads of Research Centres and Heads of H&E, HRD&SS and Plant Science Division)
18. Progress of running projects listed in IRC proceedings in different Research Programmes may be evaluated at the Headquarters and all Research Centres after visiting by seven theme / programme leaders identified for six research programmes running at the Institute and report may be submitted to the Director. Visit and evaluation of TSP works at different Research Centres may also be done by Dr. Charan Singh, Pr. Scientist and Co-ordinator of TSP and reported to the Director.
(Action: Seven Programme Leaders and Dr. Charan Singh)

19. Culture for maintaining budget estimate of the project must be developed by the leader of individual project. Annual expenditure of a particular project should essentially be presented in one slide in IRC meeting and submitted with RPP II by the project leader w.e.f. 2015-16 onwards otherwise, RPP II will be treated as incomplete.
(Action: All Scientists / Heads of Research Centres / Divisions)
20. Recording of climate data should be ensured by the scientists in all projects related to Plant Science to study the environment effect due to climate change.
(Action: All Scientists / Heads of Research Centres / Divisions)
21. All associates of that project whose project is being presented as per schedule in the IRC meeting should essentially be presented himself / herself in the hall for discussion, reply of queries (if any) etc.
(Action: All Scientists of Research Centres / Divisions)
22. It may be ensured by all scientists that the presentation should be objective-wise for all running and concluded projects in the IRC meeting restricted to maximum of ten slides only.
(Action: All Scientists of Research Centres / Divisions)
23. A monthly meeting should be organized by all leaders of running projects at Division / Centre level with all associated scientists to discuss the progress of projects and what actions have to be taken.
(Action: Leaders of all running projects)
24. Seminar on foreign papers may be conducted every month at Headquarters and all Research Centres for sharing of new thinking in research.
(Action: All Heads / Scientists of Divisions / Research Centres)
25. Annexure-A (Details of ongoing projects), Annexure-B (Activity milestone of projects for coming year) and Annexure-C (Research highlights of projects) should not be submitted in future during IRC meeting due to non-relevance of these documents in IRC meeting.
(Action: All Scientists / Heads of Research Centres / Divisions)
26. During the presentation of concluded projects (i.e. projects going to be concluded in 2016-17) in the next IRC meeting, a slide should be presented by the leader of the project mentioning about details of papers published / submitted on the results obtained pertaining to that project. Further, transfer of technologies, special innovations, expected benefits etc. should also be presented in that slide and accordingly reported in the RPP III of the project. Besides, details of papers and other publications (bulletins, training brochures, technologies, leaflets etc.) published on the projects concluded in 2015-16 should also be submitted project-wise by the concerned Head of Research Centres / Divisions before the next IRC meeting.
(Action: All Scientists / Heads of Research Centres / Divisions)

RESEARCH PROGRAMMES AND SUB-PROGRAMMES

P-1 WATER EROSION APPRAISAL IN DIFFERENT AGRO-ECOLOGICAL REGIONS
(Leader - Dr. P.R. Ojasvi)

- 1.1 Inventory and database of erosion status using modern tools and procedures
- 1.2 Soil erosion process modeling and climate change studies
- 1.3 Soil carbon dynamics and erosion productivity studies

P-2 CONSERVATION MEASURES FOR SUSTAINABLE PRODUCTION SYSTEM

- 2.1 Resource conservation measures for arable lands
(Leader - Dr. N.K. Sharma)
- 2.2 Resource conservation measures for non-arable lands
(Leader - Dr. Harsh Mehta)

P-3 WATERSHED HYDROLOGY FOR CONSERVATION PLANNING
(Leader - Dr. D.R. Sena)

- 3.1 Hydrological behaviour of land uses and management practices
- 3.2 Water harvesting, groundwater recharge and management
- 3.3 Decision support systems (DSS)

P-4 REHABILITATION OF AREAS AFFECTED BY MASS EROSION
(Leader - Dr. Ambrish Kumar)

- 4.1 Development and refinement of technologies for rehabilitation of ravines, landslides, mine spoils, riverbed mining, stream banks, torrents etc.

P-5 INTEGRATED WATERSHED MANAGEMENT FOR SOCIO-ECONOMIC GROWTH AND POLICY ADVOCACY
(Leader - Dr. Pradeep Dogra)

- 5.1 Participatory watershed management and integrated farming system (IFS)
- 5.2 Common property resource management

P-6 HUMAN RESOURCE DEVELOPMENT AND TECHNOLOGY TRANSFER
(Leader - Dr. Bankey Bihari)

- 6.1 Capacity development approaches and information and communication technology (ICT)
- 6.2 Participatory technology dissemination and adoption

STATUS OF PROGRAMME WISE RUNNING PROJECTS AND IRC COMMENTS

P-1 WATER EROSION APPRAISAL IN DIFFERENT AGRO-ECOLOGICAL REGIONS

1.1 INVENTORY AND DATABASE OF EROSION STATUS USING MODERN TOOLS AND PROCEDURES

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
1.	NRMAIISWCCIL 201500100087	Development of intensity-duration-frequency curves using rainfall data for different agro-ecological regions of India.	N.M. Alam P.K. Mishra D.R. Sena Chayna Jana G.C. Sharma	Soil Science & Agronomy, Dehradun	2015-16	2017-18	Different agro-ecological regions of India	To be continued
Comments: Progress is very good.								
2.	NRMAIISWCCIL 201500200088	Assessment of soil erosion fluxes of Uttarakhand.	P.R. Ojasvi Uday Mandal	Hydrology & Engineering, Dehradun	2015-16	2017-18	Headquarters	To be continued
Comments: Progress is very good. Name of Dr. P.K. Mishra is deleted. (Action: Dr. P.R. Ojasvi)								
3.	NRMAIISWCCIL 201500300089	Impact of land use land cover changes on soil erosion susceptibility in Bundelkhand region using Remote Sensing and GIS technique.	Rajeev Ranjan Monalisha Pramanik Manish Kumar Om Prakash R.S. Yadav	Datia	2015-16	2018-19	Bundelkhand region	To be continued
Comments: Progress is very good. Name of Dr. R.S. Yadav is included as fourth associate. (Action: Dr. Rajeev Ranjan)								
4.	NRMACSWCRTI CIL201400100081	Mapping and characterization of Jhola land areas in Koraput district.	Ch. J.P. Dash P.P. Adhikary M. Madhu U.K. Maurya	Koraput	2014-15	2016-17	Koraput districts	To be concluded
Comments: Progress is very good. A Policy paper for <i>Jhola</i> land may be prepared. Other than <i>Jhola</i> land study be taken for comparison. (Action: Dr. (Ms.) Ch. J.P. Dash)								
5.	NRMACSWCRTI CIL201300400078	Developing methodological framework for delineating and characterization of Chambal and Yamuna ravines.	G.L. Meena R.K. Singh	Kota	2013-14	2016-17	Chambal Valley in Kota region	To be concluded
			R.B. Meena K.K. Sharma S.K. Dubey	Agra			Riparian area of Yamuna river	
Comments: Progress is good. Ravine atlas of Chambal and Yamuna may be brought out. Project is extended for one year till 2016-17 to fulfill the remaining objectives. (Action: Dr. G.L. Meena and Dr. R.B. Meena)								

1.2 SOIL EROSION PROCESS MODELING AND CLIMATE CHANGE STUDIES

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
6.	NRMAIISWCCOL 201500400090	National Mission on Sustaining Himalayan Eco-system (NMSHE) - Task force on Himalayan agriculture for lower and middle Himalayan region.	P.K. Mishra N.K. Sharma P.R. Ojasvi Ambrish Kumar Pradeep Dogra Charan Singh D.R. Sena S.S. Shrimali Lakhan Singh Bankey Bihari M. Muruganandam Rajesh Kaushal Lekh Chand U.K. Maurya V.C. Pande (Vasad) A.C. Rathore J.M.S. Tomar N.M. Alam Suresh Kumar (Bellary) Chayna Jana Ramanjeet Singh Uday Mandal A.K. Gupta Trisha Roy	Soil Science & Agronomy, Dehradun	2015-16	2020-21	Lower-middle Himalayas	To be continued (NMSHE Project)
			Pankaj Panwar V.K. Bhatt S.L. Arya Sharmistha Pal Ram Prasad A.K. Tiwari Pawan Sharma	Chandigarh				

Comments: Progress is very good. Names of Dr. J.M.S. Tomar and Dr. (Ms.) Trisha Roy are included as associates in Dehradun and name of Er. S. Patra is deleted.
(Action: Dr. N.K. Sharma)

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
7.	NRMAIISWCCOL 201500500091	Effect of climate change on hydrology of small watersheds vis-à-vis soil and water conservation measures.	D.R. Sena P.K. Mishra Uday Mandal Chayna Jana N.M. Alam	Hydrology & Engineering, Dehradun	2014-15	2016-17	River basin Brahmani (Bench mark basin) and 3 other sub-basins in different agro-eco-systems	To be concluded (NICRA Project)
			Monalisha Pramanik Rajeev Ranjan S.P. Tiwari	Datia				
			P.P. Adhikary Ch.J.P. Dash D.C. Sahoo M. Madhu	Koraput				
			B.K. Rao P.R. Bhatnagar Gaurav Singh V.C. Pande	Vasad				

Comments: Progress is very good. Name of Dr. Gopal Kumar is deleted and Dr. B.K. Rao will be the leader at Vasad. Name of Er. Gaurav Singh is included as second associate. (Action: Dr. D.R. Sena and Dr. B.K. Rao)

8.	NRMAIISWCCIL 201500600092	Application of integrated spatial science tools for prediction of soil erosion map under changing climate scenario for the Uttarakhand state.	Uday Mandal Chayna Jana D.R.Sena	Hydrology & Engineering, Dehradun	2015-16	2017-18	Headquarters	To be continued
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Comments: Progress is very good.

1.3 SOIL CARBON DYNAMICS AND EROSION PRODUCTIVITY STUDIES

9.	NRMACSWCRTI CIL200800100014	Erosion productivity relationships for evaluating vulnerability and resiliency of soils under different agro-climatic regions of India.	D. Mandal S. Patra Deepak Singh N.K. Sharma Pradeep Dogra	Soil Science & Agronomy, Dehradun	2008-09	2017-18	Research Farm of Headquarters and all Research Centres	To be continued (Core Project)
			S.K. Dubey A.K. Singh R.K.Dubey	Agra	2009-10			
			H. Biswas, S.L. Patil	Bellary	2009-10			
			Sharmistha Pal A.K. Tiwari	Chandigarh	2009-10			

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
			Dev Narayan S.P. Tiwari Monalisha Pramanik	Datia	2009-10			
			P.P. Adhikary M. Madhu	Koraput	2009-10			
			R.K. Singh Kuldeep Kumar B.L. Mina	Kota	2009-10			
			K. Kannan, P. Raja	Udhagamandalam	2009-10			
			D. Dinesh, V. Kakade	Vasad	2009-10			
<p>Comments: Progress is very good. Trend analysis may be done. Relationship with soil moisture may be worked out. Comparative result may be presented in the next IRC Meeting. Name of Er. Deepak Singh is included as second associate at Dehradun. Name of Mr. Prabhat Kumar is deleted at Datia. Dr. P. Raja will replace Dr. D. Dinesh as an associate at Udhagamandalam. Dr. D. Dinesh will replace Dr. Gopal Kumar as leader and Dr. V. Kakade will replace Dr. R.S. Kurothe as an associate at Vasad Centre.</p> <p style="text-align: right;">(Action: Dr. D. Mandal and leaders at all Research Centres)</p>								
10.	NRMACSWCRTI CIL201100400050	Assessment of soil organic carbon in transit under erosion processes: A source or sink for atmospheric CO ₂ .	M. Sankar Lekh Chand D.R. Sena	Soil Science & Agronomy, Dehradun	2011-12	2018-19	Research Farm	To be continued
<p>Comments: Progress is good. Carbon related data may be collected every year. Name of Dr. M. Sankar is included as leader of project and name of Dr. N.M. Alam is deleted.</p> <p style="text-align: right;">(Action: Dr. M. Sankar)</p>								
11.	NRMAIISWCCOL 201500700093	Environmental tracer based study on erosion induced loss of soil organic carbon and its impact on agronomic productivity and environmental quality.	D. Mandal	National Fellow Programme	2015-16	2019-20	Research Farm, Selakui and Doon Valley region	To be continued (ICAR-National Fellow Project)
<p>Comments: Progress is very good. Experimental site may be specified.</p> <p style="text-align: right;">(Action: Dr. D. Mandal)</p>								
12.	NRMACSWCRTI CIL201400200082	Development and validation of a spatially explicit simulation framework to quantify runoff-erosion-carbon flux at watershed scale.	S. Patra, P.R. Ojasvi Rajesh Kaushal A.C. Rathore Chayna Jana N.M. Alam Trisha Roy Deepak Singh	Hydrology & Engineering, Dehradun	2014-15	2019-20	Research Farm	To be continued
<p>Comments: Progress is very good. Dr. P.R. Ojasvi will be the leader of project in place of Er. S. Patra whenever Er. Patra leaves on study leave. Names of Dr. D. Mandal and Dr. Lekh Chand are deleted and names of Dr.(Ms.) Trisha Roy and Er. Deepak Singh are included as associates.</p> <p style="text-align: right;">(Action: Er. S. Patra/Dr. P.R. Ojasvi)</p>								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
13.	NRMAIISWCCIL201600100115	Assessing the vegetation and SOC recovery potentials of abandoned / fallowed shifting cultivated sites in Central Eastern Ghats.	H. Gowda P. Jakhar Karm Beer	Koraput	2016-17	2018-19	Central Eastern Ghats (Malkangiri, Koraput, Raygada and Vishakhapatnam districts)	To be continued (New Project)

Comments: Some representative sample from NEH location may be included in the study. Outsourcing for CHN Analyzer may be explored.
(Action: Dr. H. Gowda)

P-2 CONSERVATION MEASURES FOR SUSTAINABLE PRODUCTION SYSTEM

2.1 RESOURCE CONSERVATION MEASURES FOR ARABLE LANDS

14.	NRMACSWCRTI CIL201300200076	Evaluating the effect of organic amendments on resource conservation and productivity of rainfed semi-arid vertisols.	H. Biswas S.L. Patil Suresh Kumar	Bellary	2013-14	2017-18	Research Farm	To be continued
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Comment: Progress is very good. Biochar may be applied in horticulture plantation as an Observational Trial.
(Action: Dr. H. Biswas)

15.	NRMAIISWCCIL 201600200116	Effect of varying water regimes on Zn and N dynamics and rice productivity in saline vertisols.	M. Prabhavathi H. Biswas	Bellary	2016-17	2018-19	Research Farm	To be continued (New Project)
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Comments: Literature may be reviewed and varieties may be selected accordingly.
(Action: Ms. M. Prabhavathi)

16.	NRMACSWCRTI CIL200900200031	Conservation tillage for resource management and higher production from Shiwaliks.	Sharmistha Pal Pawan Sharma S.L. Arya Sathiya K.	Chandigarh	2009-10	2016-17	Research Farm	To be concluded
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Comments: Progress is very good. Project is extended for one year till 2016-17 to fulfill the remaining objectives. Final recommendations may be presented in the next IRC meeting. Name of Dr. Sathiya K. is included as third associate.
(Action: Dr.(Ms.) Sharmistha Pal)

17.	NRMACSWCRTI CIL201100800054	Adaptation potential and productivity of organic vis-à-vis conventional farming system under rainfed conditions of Shiwaliks region.	Pawan Sharma Sathiya K. V.K.Bhatt	Chandigarh	2011-12	2016-17	Research Farm	To be concluded
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Comments: Progress is very good. A training module on organic farming may be developed. Policy paper may be prepared. It may be taken under ToT programme. Project is extended for one year till 2016-17. Dr. Sathiya K. will replace Dr. Lekh Chand as first associate.
(Action: Dr. (Ms.) Pawan Sharma)

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
18.	NRMACSWCRTI CIL201000400040	<i>In situ</i> moisture conservation practices under aonla based agro-forestry system for sustainable production in red soils of Bundelkhand.	Dev Narayan R.S. Yadav Manish Kumar	Datia	2010-11	2018-19	Research Farm	To be continued
Comments: Progress is very good. Dr. R.S. Yadav will replace Mr. Prabhat Kumar as first associate.								(Action: Dr. Dev Narayan)
19.	NRMAIISWCCIL 201500800094	Restoration of shifting cultivated lands for resource conservation and sustainable production in Eastern Ghats.	D.C. Sahoo P.P. Adhikary P. Jakhar M.K. Meena Karm Beer	Koraput	2015-16	2022-23	Shifting cultivated area in Koraput district	To be continued
Comments: Progress is very good. Dr. P. Jakhar will replace Dr. M. Madhu as second associate and name of Mr. Karm Beer is included as fourth associate.								(Action: Dr. D.C. Sahoo)
20.	NRMAIISWCCIL 201500900095	Conservation tillage systems for enhancing productivity and resource use efficiency under rainfed area of South-eastern Rajasthan.	Kuldeep Kumar B.L. Mina Shakir Ali Ashok Kumar	Kota	2015-16	2020-21	Research Farm	To be continued
Comments: Progress is very good. Title of the project has been modified for Kota Centre as the core project has not been started at other Centres.								(Action: Dr. Kuldeep Kumar)
21.	NRMAIISWCCIL 201600300117	Resource conservation and productivity enhancement through organic and inorganic amendments in soyabean-mustard cropping systems.	I. Rashmi B.L. Mina Kuldeep Kumar Shakir Ali Ashok Kumar	Kota	2016-17	2020-21	Research Farm	To be continued (New Project)
22.	NRMACSWCRTI CIL201400300083	Cover crops and reduced tillage for enhancing productivity and soil health in rainfed farming system in the hilly areas.	K. Kannan V.K. Thilagam O.P.S. Khola P. Raja	Udhagamandalam	2014-15	2018-19	Research Farm	To be continued
Comments: Progress is very good. Name of Dr. D. Dinesh is deleted and name of Dr. P. Raja is included as third associate.								(Action: Dr. K. Kannan)

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
23.	NRMAIISWCCIL 201501000096	High value forage grass strips for resource conservation and enhancing production in crop fields.	B.K.Rao Gaurav Singh D. Dinesh V.C.Pande	Vasad	2015-16	2016-17	Research Farm	To be concluded
Comments: Progress is very good. Dr. D. Dinesh will replace Dr. Gopal Kumar as second associate and name of Er. Gaurav Singh is included as first associate. (Action: Dr. B.K. Rao)								

2.2 RESOURCE CONSERVATION MEASURES FOR NON-ARABLE LANDS

24.	NRMAIISWCCIL 201600400118	Improvisation of soil working techniques for enhancing tree establishment under rainfed conditions of North-Western Himalayas.	D.V. Singh J. Jayaprakash D.M. Kadam Vibha Singhal	Soil Science & Agronomy, Dehradun	2016-17	2019-20	Research Farm, Sainj & Dhanpau-Lakhwar villages, Dehradun districts	To be continued (New Project)
Comments: Treatments may be modified as per location. (Action: Dr. D.V. Singh)								
25.	NRMAIISWCCIL 201600500119	Soil fertility restoration and carbon sequestration potential of five agro-forestry trees in Himalayan foothills.	Vibha Singhal Charan Singh Trisha Roy	HRD&SS, Dehradun	2016-17	2018-19	Dehradun district	To be continued (New Project)
26.	NRMACSWCRTI CIL200900500034	Evaluation of traditional minor millet based agro-forestry systems under recommended agri-silvi-cultural practices of North-Western Himalayas.	Harsh Mehta J.M.S. Tomar Trisha Roy	Plant Science, Dehradun	2009-10	2018-19	Research Farm	To be continued
Comments: Progress is very good. Dr.(Ms.) Trisha Roy will replace Dr. D. Mandal as second associate. (Action: Dr. Harsh Mehta)								
27.	NRMACSWCRTI CIL201000500041	Effect of degradation on conservation and production attributes of Sal forests in Uttarakhand.	J.M.S. Tomar J. Jayaprakash M. Sankar	Plant Science, Dehradun	2010-11	2016-17	Rudrapur, Langha & Kalyanpur	To be concluded
Comments: Progress is good. Project is extended for one year till 2016-17 to fulfill the remaining objectives. Name of Dr. J.M.S. Tomar is shifted from second associate to leader of project. Names of Dr. O.P. Chaturvedi and Dr. Charan Singh are deleted. Dr. M. Sankar will replace Dr. D.V. Singh as second associate. (Action: Dr. J.M.S. Tomar)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
28.	NRMACSWCRTI CIL201101100057	Influence of aromatic grasses and tree management on soil moisture and health under silvo-aromatic grass systems on bouldery land of Doon Valley.	J.M.S. Tomar Rajesh Kaushal A.K. Gupta	Plant Science, Dehradun	2011-12	2016-17	Research Farm	To be concluded
Comments: Progress is very good. Project is extended for one year till 2016-17 to study the climate change effect. (Action: Dr. J.M.S. Tomar)								
29.	NRMACSWCRTI CIL201101200058	Efficacy of different soil and water conservation measures on bamboo productivity and resource conservation in Himalayan foothills.	Rajesh Kaushal Ambrish Kumar J.M.S. Tomar D.V. Singh	Plant Science, Dehradun	2011-12	2020-21	Near Mednipur Forest Nursery	To be continued
Comments: Progress is very good. Micro-catchment area of differently shaped trenches from where water coming may be calculated. (Action: Dr. Rajesh Kaushal)								
30.	NRMACSWCRTI CIL201101300059	Canopy management in <i>Morus alba</i> for enhancing productivity and resource conservation.	Rajesh Kaushal Ambrish Kumar J. Jayaprakash D. Mandal	Plant Science, Dehradun	2011-12	2016-17	Research Farm	To be concluded
Comments: Progress is very good.								
31.	NRMACSWCRTI CIL201200200071	Development and characterization of quality planting material of important MPT's for degraded lands of North-West Himalayas.	Harsh Mehta Rajesh Kaushal A.K. Gupta	Plant Science, Dehradun	2012-13	2019-20	Research Farm	To be continued
Comments: Progress is very good.								
32.	NRMAIISWCCIL 201501100097	Evaluation of <i>Bael</i> and Olive based agro-forestry system with soil amendments in Doon Valley.	J. Jayaprakash A.C. Rathore D.V. Singh Harsh Mehta	Plant Science, Dehradun	2015- 16	2024-25	Research Farm	To be continued
Comments: Progress is very good.								
33.	NRMAIISWCCIL 201501200098	Phyto-rehabilitation of saline - sodic vertisols through <i>Prosopis juliflora</i> based silvipastoral system.	M.N. Ramesha A. Raizada H. Biswas	Bellary	2015-16	2019-20	Research Farm	To be continued
Comments: Progress is very good. Dr. A. Raizada will be the leader of project in place of Mr. M.N. Ramesha whenever Mr. Ramesha proceeds on study leave. (Action: Mr. M.N. Ramesha / Dr. A. Raizada)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
34.	NRMACSWCRTI CIL200800700020	Peach based agri- horticulture land use system for degraded Shiwaliks.	Ram Prasad Sharmistha Pal S.L. Arya	Chandigarh	2008-09	2017-18	Research Farm	To be continued
Comments: Progress is very good. Project is extended for two years till 2017-18 to study the climate change variability with Dr. D.R. Sena, Pr. Scientist (Engg.). (Action: Dr. Ram Prasad and Dr. D.R. Sena)								
35.	NRMACSWCRTI CIL201101400060	Resource budgeting in agro- forestry for livelihood security by applying WANulCAS model under Indian condition.	Pankaj Panwar Sharmistha Pal V.K. Bhatt Ram Prasad	Chandigarh	2011-12	2016-17	Research Farm	To be concluded
Comments: Progress is very good.								
36.	NRMACSWCRTI CIL201000700043	Evaluation of moisture conservation techniques for sustainable production of Tree Borne Oil Seeds (TBOS) in Bundelkhand.	Manish Kumar Monalisha Pramanik R.S. Yadav	Datia	2010-11	2017-18	Research Farm	To be continued
Comments: Progress is very good. Name of Mr. Prabhat Kumar as leader is deleted and Mr. Manish Kumar will be the leader of project. Name of Dr. R.S. Yadav is included as second associate. (Action: Mr. Manish Kumar)								
37.	NRMAIISWCCIL 201501300099	Evaluation of promising fruit species with different moisture conservation practices in red soils of Bundelkhand region.	Manish Kumar Rajeev Ranjan Monalisha Pramanik S.P. Tiwari	Datia	2015-16	2020-21	Research Farm	To be continued
Comments: Progress is very good.								
38.	NRMAIISWCCIL 201501400100	Evaluation of cover crops under cashew and mango plantation for improving soil health and productivity in Eastern Ghats High Land Region of Odisha.	M. Madhu D.C. Sahoo P.P. Adhikary H. Gowda	Koraput	2015-16	2020-21	Watershed in Semiliguda block, Koraput	To be continued
Comments: Progress is very good. Name of Dr. H. Gowda is included as third associate. (Action: Dr. M. Madhu)								
39.	NRMAIISWCCIL 201600600120	Evaluation, characterization and development of elite genotypes of <i>Cassia</i> <i>auriculata</i> for cultivation in arid and semi-regions.	S. Kala H.R. Meena I. Rashmi Shakir Ali	Kota	2016-17	2021-22	Research Farm	To be continued (New Project)

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
40.	NRMACSWCRTI CIL201101700063	Effect of shade trees on productivity and soil health in rejuvenated tea plantations in Nilgiris.	R. Ragupathy K. Rajan	Udhagamandalam	2011-12	2018-19	Research Farm	To be continued
Comments: Progress is good. Survey and study of established plants like oak, silver tree on farmers' field giving sufficient shades may be completed. (Action: Dr. R. Ragupathy)								
41.	NRMAIISWCCIL 201600700121	Resource utilization and productivity of Dragon fruit based horti-silviculture system under rainfed agro-eco-systems of Central Gujarat.	V. Kakade P.R. Bhatnagar Raj Kumar D. Dinesh	Vasad	2016-17	2022-23	Research Farm	To be continued (New Project)

P-3 WATERSHED HYDROLOGY FOR CONSERVATION PLANNING

3.1 HYDROLOGICAL BEHAVIOUR OF LANDUSES AND MANAGEMENT PRACTICES

42.	NRMACSWCRTI CIL200400100002	Hydrological evaluation of recommended forest grasses in Himalayan foothills.	J. Jayaprakash Ambrish Kumar	Plant Science, Dehradun	2004-05	2018-19	Research Farm	To be continued
Comments: Progress is very good. Name of Dr. O.P. Chaturvedi as leader is deleted and Dr. J. Jayaprakash will be the leader of project. Names of Dr. Charan Singh and Dr. B.N. Ghosh are deleted. (Action: Dr. J. Jayaprakash)								
43.	NRMACSWCRTI CIL201101800064	Evaluation of hydrological behaviour and production potential of recommended landuse system / practices under different agro-ecological regions of India.	J.M.S. Tomar Uday Mandal A.C. Rathore Ramanjeet Singh M. Muruganandam	Plant Science, Dehradun	2011-12	2017-18	Pasauli, Vikas Nagar	To be continued (Core Project)
			K.K. Sharma S.K. Dubey A.K. Parandiyal Dileep Kumar	Agra			Garhi Udairaj, Fatehabad	
			V.K. Bhatt Pankaj Panwar Ram Prasad	Chandigarh			Janoli Village, Panchkula	

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
			Shakir Ali S. Kala B.L. Mina H.R. Meena	Kota			Dhoti Watershed	
<p>Comments: Progress is very good. Detailed water balance equation in the system may be worked out. Project is extended for two years till 2017-18 at the Headquarters and Research Centres Agra, Chandigarh and Kota. Project is concluded at Udhagamandalam and Vasad Centres in 2015-16 and final report of these two Centres may be presented in the next IRC. Names of Dr. B.N. Ghosh and Dr. Sharmistha Pal are deleted at Dehradun and Chandigarh, respectively. (Dr. J.M.S. Tomar and leaders at other Research Centres)</p>								
44.	NRMAIISWCCIL 201501500101	Hydrologic systems analysis across multiple spatial scales and its implications on hydrologic processes in sub-humid catchment of Eastern Ghat High Land Region of Odisha.	Ch. J.P. Dash P.P. Adhikary D.C. Sahoo N.M. Alam	Koraput	2015-16	2018-19	Watershed in Semiliguda block, Koraput	To be continued
<p>Comments: Progress is very good.</p>								
45.	NRMAIISWCCIL 201501600102	Modelling the nutrient movement in agricultural watersheds and their impact on surface water resources of Nilgiris.	V.K.Thilagam S. Manivannan K. Rajan O.P.S. Khola	Udhagamandalam	2015-16	2017-18	The Nilgiris	To be continued
<p>Comments: Progress is very good.</p>								

3.2 WATER HARVESTING, GROUNDWATER RECHARGE AND MANAGEMENT

46.	NRMAIISWCSIP 201501700103	Development and rejuvenation of natural springs through soil and water conservation measures	U.K. Maurya Ambrish Kumar CCPI: S.K. Rai Co-CCPI: S.K. Bartarya	Soil Science & Agronomy, Dehradun	2015-16	2017-18	Mid Himalayas in Garhwal region	To be continued (Collaborative project with Wadia Institute of Himalayan Geology (WIHG), Dehradun)
<p>Comments: Progress is very good.</p>								
47.	NRMAIISWCSOL 201501900105	Consortia Research Platform-Water Theme 1 Water Resources Augmentation/Conservation.	P.R. Ojasvi P.K. Mishra S.S. Shrimali Ambrish Kumar	Hydrology & Engineering, Dehradun	2015-16	2016-17	Headquarters and all Research Centres	To be concluded (Water Platform Project)

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
			K.K. Sharma R.B. Meena A.K. Singh	Agra				
			B.S. Naik, H. Biswas A. Raizada	Bellary				
			V.K. Bhatt A.K. Tiwari Sharmistha Pal Pankaj Panwar	Chandigarh				
			Monalisha Pramanik Manish Kumar Rajeev Ranjan	Datia				
			D.C. Sahoo Ch. J.P. Dash P. Jakhar	Koraput				
			G.L. Meena R.K.Singh	Kota				
			S. Manivannan V.K. Thilagam O.P.S. Khola	Udhagamandalam				
			P.R. Bhatnagar B.K. Rao Gaurav Singh O.P. Meena	Vasad				

Comments: Progress is very good. First objective may be taken-up by Dehradun and all Research Centres however, solar pump objective may be completed by Dehradun, Bellary, Chandigarh and Datia only. Dr. Ambrish Kumar will replace Dr. Ramanjeet Singh, Dr. P. Jakhar will replace Dr. M. Madhu, Dr. V.K. Thilagam will replace Dr. D. Dinesh and Mr. O.P. Meena will replace Dr. Gopal Kumar at Dehradun, Koraput, Udhagamandalam and Vasad, respectively. Name of Er. S. Patra is deleted and name of Er. Gaurav Singh is included at Dehradun and Vasad, respectively.

(Action: Dr. P.R. Ojasvi and leaders at all Research Centres)

48.	NRMAIISWCCOL 201502000106	Efficient groundwater management for enhancing adaptive capacity to climate change in sugarcane based farming systems in Muzaffarnagar district, U.P.	Ambrish Kumar U.K. Maurya Uday Mandal A.K. Gupta	HRD&SS, Dehradun	2015-16	2017-18	Selected sites in Muzaffarnagar district, UP	To be continued (NMSA-MoA Project)
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Comments: Progress is very good. Water quality activities may be taken-up.

(Action: Dr. Ambrish Kumar)

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
49.	NRMAIISWCCIL 201501800104	Water quality assessment and its impact on adjacent soil and vegetation in riparian areas of Hindon and Kali rivers.	A.K. Gupta Ambrish Kumar U.K. Maurya Rajesh Kaushal	Plant Science, Dehradun	2015-16	2019-20	Hindon & Kali rivers' basins in Saharanpur, Muzaffarnagar, Meerut etc. distts.	To be continued
Comments: Progress is very good. Name of Dr. O.P. Chaturvedi is deleted. (Action: Mr. A.K. Gupta)								
50.	NRMACSWCRTI CIL201200400073	Water budgeting of a ravine watershed pond for optimum crop planning under semi-arid region.	K.K. Sharma S.K. Dubey Dileep Kumar	Agra	2012-13	2016-17	Research Farm	To be concluded
Comments: Progress is good. Dryland Centre at Agra may be visited to compare the work in this study. Status of farm pond in and around Agra may be presented in the next IRC meeting. Project is extended for one year till 2016-17 to fulfill the remaining objective as objective no. three could not be fulfilled. (Action: Dr. K.K. Sharma)								
51.	NRMAIISWCCIL 201502100107	Study on pollution status of Yamuna river and its impact on soil and crop health in Western U.P.	Rama Pal, S.K. Dubey R.K. Dubey A.K. Singh	Agra	2015-16	2019-20	Yamuna river belt	To be continued
Comments: Progress is very good.								
52.	NRMACSWCRTI CIL201400400084	Socio-economic implication and vulnerability of farmers to ground water exploitation in hard rock region of the Deccan.	Suresh Kumar A. Raizada	Bellary	2014-15	2016-17	Four districts of Karnataka	To be concluded
Comments: Progress is very good. A brochure on awareness of groundwater literacy may be prepared. Probability of risk (borewell failure) may be included in the brochure and presentation has to be made in the next IRC meeting. (Action: Mr. Suresh Kumar)								
53.	NRMACSWCRTI CIL201001000046	Estimation of water budget components for predominant land uses of south-eastern Rajasthan for conservation planning.	G.L. Meena R.K. Singh H.R. Meena	Kota	2010-11	2018-19	Research Farm	To be continued
Comments: Progress is good. Water balance may be recalculated for which the help of Dr. Shakir Ali, Pr. Scientist (Engg.) may be taken. AET equation may be recalculated and also the curve number may be calculated. Project is extended for three years till 2018-19. (Action: Dr. G.L. Meena)								

S. No	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
54.	NRMACSWCRTI COL201400500085	Development of efficient and innovative blue and green water harvesting techniques for enhancing the land and water productivity of semi-arid districts of Gujarat.	B.K. Rao P.R. Bhatnagar	Vasad	2014-15	2016-17	Panchmahal and Dahod districts	To be concluded (DST Funded)
Comments: Progress is excellent. ToT programme on conservation furrow may be taken-up. Project is extended till Sept., 2016 as the extension given for six months by the funding agency. Name of Dr. R.S. Kurothe is deleted. (Action: Dr. B.K. Rao)								
55.	NRMAIISWCCIL 201502200108	Strategies for rainwater harvesting and its multiple uses in rainfed agriculture in Central Gujarat	P.R. Bhatnagar O.P. Meena V.C. Pande V. Kakade	Vasad	2015-16	2017-18	Research Farm and farmers fields in adopted watersheds	To be continued
Comments: Progress is very good. Mr. O.P. Meena will replace Dr. Gopal Kumar as first associate. Name of Dr. V. Kakade is included as third associate and name of Dr. B.R. Rao is deleted. (Action: Dr. P.R. Bhatnagar)								
56.	NRMAIISWCCOL2 01600800122	Development of cost effective plastic check dams for water harvesting in rainfed regions.	B.K. Rao P.R. Bhatnagar P.K. Mishra	Vasad	2015-16	2016-17	Research Farm & Farmers' field	To be concluded (Extra Mural project) (New Project)

P-4 REHABILITATION OF AREAS AFFECTED BY MASS EROSION

4.1 DEVELOPMENT AND REFINEMENT OF TECHNOLOGIES FOR REHABILITATION OF RAVINES, LANDSLIDES, MINE SPOILS, RIVERBED MINING, STREAM BANKS, TORRENTS ETC.

57.	NRMACSWCRTI CIL201400600086	Assessment of impact of extraction of RBM (River bed material) on physiography of stream flow courses of Himalayan foot hill streams.	S.S. Shrimali Chayna Jana D. Mandal	Hydrology & Engineering, Dehradun	2014-15	2017-18	Rivers of Uttarakhand	To be continued
Comments: Progress is very good.								
58.	NRMAIISWCCIL 201502300109	Ecological restoration of stone mine spoil area in south-eastern Rajasthan.	B.L. Mina S. Kala, H.R. Meena Shakir Ali Ashok Kumar	Kota	2015-16	2024-25	Mine spoil sites in Kota district	To be continued
Comments: Progress is very good. Name of Dr. R.K. Singh is deleted. (Action: Dr. B.L. Mina)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
59.	NRMAIISWCCOL 201600900123	Field evaluation of refinement of ravine reclamation technology in a model ravine area development project at Lohli-Bagli village in district Bundi (Rajasthan).	R. K. Singh H.R. Meena Shakir Ali Ashok Kumar B.L. Mina Kuldeep Kumar S. Kala, G.L. Meena I. Rashmi	Kota	2016-17	2020-21	Bundi district, Rajasthan	To be continued (Govt. of Rajasthan funded) (New Project)
60.	NRMACSWCRTI CIL201102200068	Field evaluation of design of trenches under different agro-climatic regions.	P.R. Bhatnagar V.C. Pande D. Dinesh	Vasad	2011-12	2018-19	Research Farm	To be continued (Core Project)
			A.K. Parandiyal A.K. Singh R.B. Meena	Agra			Research Farm	
			A.K. Tiwari Pankaj Panwar V.K. Bhatt	Chandigarh			Research Farm	
			Monalisha Pramanik S.P. Tiwari Manish Kumar	Datia			Research Farm	
			D.C. Sahoo H. Gowda P.P. Adhikary	Koraput			Research Farm	
			Shakir Ali, S. Kala	Kota			Dhoti Watershed	
			S. Manivanan K. Kannan, K. Rajan	Udhagamandalam			Research Farm	
			<p>Comments: Progress is good. Proper rainfall runoff analysis may be done in context of design. Soil moisture upstream and downstream may be measured. Project is extended for three years till 2018-19. Name of Dr. R.S. Kurothe is deleted and Dr. P.R. Bhatnagar will be the leader of core project. Dr. D. Dinesh will replace Dr. Gopal Kumar and Dr. H. Gowda will replace Dr. M. Madhu at Vasad and Koraput, respectively. Names of Dr. R.K. Dubey, Dr. Sharmistha Pal and Dr. Ashok Kumar are deleted at Agra, Chandigarh and Kota, respectively. (Action: Dr. P.R. Bhatnagar and leaders at other Centres)</p>					
61.	NRMACSWCRTI CIL200801000023	Enhancing productivity of ravine lands by plantation of <i>A. sapota</i> with intercropping systems.	Raj Kumar B.K. Rao Gaurav Singh V.C. Pande D. Dinesh V. Kakade	Vasad	2008-09	2022-23	Research Farm	To be continued
<p>Comments: Progress is very good. Name of Dr. Gopal Kumar is deleted and names of Er. Gaurav Singh, Dr. D. Dinesh and Dr. V. Kakade are included as second, fourth and fifth associates, respectively. (Action: Dr. Raj Kumar)</p>								

P-5 INTEGRATED WATERSHED MANAGEMENT FOR SOCIO-ECONOMIC GROWTH AND POLICY ADVOCACY**5.1 PARTICIPATORY WATERSHED MANAGEMENT AND INTEGRATED FARMING SYSTEM (IFS)**

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
62.	NRMACSWCRTI CIL200900700036	Multiple criteria decision for identifying suitable Integrated Farming Systems in different agro-ecological regions for optimizing resource conservation and productivity.	Pradeep Dogra N.K. Sharma A.C. Rathore	PME Cell, Dehradun	2009-10	2016-17	Asthi Watershed	To be concluded (Core Project)
			A.K. Singh, D.C. Meena Dileep Kumar	Agra			Jalalpur Watershed	
			S.L. Patil, H. Biswas Suresh Kumar	Bellary			Ramasagara Watershed	
			S.L. Arya Ram Prasad	Chandigarh			Janoli Village, Panchkula	
			Dev Narayan Rajeev Ranjan	Datia			Jigna Watershed	
			M.K. Meena	Koraput			Lachhaputraghati Watershed	
			Ashok Kumar H.R. Meena	Kota			Dhoti Watershed	
			K. Kannan P. Raja	Udhagamandalam			Ayalur Watershed	
			V.C. Pande O.P. Meena	Vasad			Vejalpura- Rampura Watershed	
Comments: Progress is very good. Dr. P. Raja will replace Dr. D. Dinesh as an associate at Udhagamandalam. Mr. O.P. Meena will replace Dr. Gopal Kumar as an associate at Vasad. Names of Dr. M. Muruganandam and Er. S. Patra are deleted at Dehradun. Names of Dr. R.B. Meena, Dr. Sharmishta Pal, Mr. Prabhat Kumar and Dr. M. Madhu are deleted at Agra, Chandigarh, Datia and Koraput, respectively. (Action: Dr. Pradeep Dogra and leaders at Research Centres)								
63.	NRMAIISWCCIL 201502400110	Evaluation of criteria and techniques for classification of fisheries - sensitive watersheds for conservation and production management	M.Muruganandam Chayna Jana Uday Mandal A.K. Gupta	Hydrology & Engineering, Dehradun	2015-16	2017-18	Garhwal Himalayas	To be continued
Comments: Progress is very good.								
64.	NRMAIISWCCIL 201601000124	Socio-economic analysis of farming/livelihood systems of farmers across different land categories in Yamuna ravine area.	D.C. Meena Dileep Kumar A.K. Parandiyal	Agra	2016-17	2019-20	Ravine areas in U.P.	To be continued (New Project)
Comments: Random farmers may be selected for the study. (Action: Dr. D.C. Meena)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
65.	NRMAIISWCCOL 201601100125	Refining methodologies for data validation, planning, monitoring and evaluation of watersheds.	A. Raizada H. Biswas Suresh Kumar B.S. Naik, S.L. Patil A.S. Morade M. Prabhavathi P.R. Ojasvi Pradeep Dogra S.S. Shrimali	Bellary	2016-17	2018-19	Research Centre, Bellary, Karnataka	To be continued (Sujala – III Project) (New Project)
66.	NRMAIISWCCIL 201502500111	Socio-economic analysis of tribal farming system in different topo-sequence in Koraput District, Odisha.	M.K. Meena D.C. Sahoo P.P. Adhikary M. Madhu	Koraput	2015-16	2017-18	Koraput district	To be continued
Comments: Progress is very good.								

5.2 COMMON PROPERTY RESOURCE MANAGEMENT

67.	NRMAIISWCCOL 201601200126	Devising economic framework for ecosystem services payment and farmers' livelihood in Mahi and Chambal ravine ecosystems.	V.C. Pande P.R. Bhatnagar Raj Kumar D. Dinesh	Vasad	2015-16	2016-17	Mahi ravine	To be concluded (Extra Mural project) (New Project)
			Ashok Kumar B.L. Mina, S. Kala	Kota			Chambal ravine	

P-6 HUMAN RESOURCE DEVELOPMENT AND TECHNOLOGY TRANSFER

6.1 CAPACITY DEVELOPMENT APPROACHES AND INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

68.	NRMAIISWCCIL 201502600112	Developing ICT based e-learning tools for conservation measures and watershed management.	Chayna Jana S.S. Shrimali N.M. Alam Rajesh Kaushal Ramanjeet Singh Bankey Bihari	Hydrology & Engineering, Dehradun	2015-16	2018-19	Different agro-ecological regions of India	To be continued
Comments: Progress is very good.								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
69.	NRMAIISWCCOL 201601300127	Creation of ICT network to disseminate knowledge about the soil and water conservation technologies to farmers in Himalayan region.	Lakhan Singh Rajesh Bishnoi Bankey Bihari S.S. Shrimali Ramanjeet Singh D.M. Kadam	HRD&SS, Dehradun	2015-16	2016-17	Himalayan region	To be concluded (Extra Mural project) (New Project)
70.	NRMACSWCRTI SIP201300500079	Role of soil and water conservation technologies for climate resilient agriculture in Himalayan ecosystem - An action research.	D.V. Singh Charan Singh Ramanjeet Singh D.M. Kadam Deepak Singh	Soil Science & Agronomy Dehradun	2013-14	2017-18	Hattal and Sainj villages, Uttarakhand	To be continued
Comments: Progress is very good. Project location is changed from Naini watershed to Hattal & Sainj villages under Tribal Sub Plan (TSP). Names of Dr. P.K. Mishra and Er. S. Patra are deleted and name of Er. Deepak Singh is included as fourth associate. (Action: Dr. D.V. Singh)								

6.2 PARTICIPATORY TECHNOLOGY DISSEMINATION AND ADOPTION

71.	NRMAIISWCSOP 201502800114	Ensuing sustainable agricultural development and livelihood security in lower Shiwalik range of Uttarakhand.	Ramanjeet Singh Lakhan Singh	Soil Science & Agronomy, Dehradun Lead Centre: IARI, New Delhi	2015-16	2017-18	Haridwar district, Uttarakhand	To be continued (DST Funded)
Comments: Progress is very good. Soil quality changes and green house gas emission may be monitored. Name of Dr. Lakhan Singh is included as an associate. (Action: Dr. Ramanjeet Singh)								
72.	NRMAIISWCCIL 201601400128	Assessing farmers knowledge, vulnerability and adapting capacity of soil and water conservation technologies under changing climatic scenario.	Lakhan Singh Rajesh Bishnoi Bankey Bihari A.K. Gupta Indu Rawat	HRD&SS, Dehradun	2016-17	2018-19	Dehradun district	To be continued (Core Project) (New Project)
			D.C. Meena R.K. Dubey S.K. Dubey	Agra			Agra	
			Suresh Kumar A. Raizada A.S. Morade	Bellary			Bellary	

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
			S.L. Arya Sharmistha Pal Pankaj Panwar	Chandigarh			Chandigarh	
			Om Prakash Rajeev Ranjan R.S. Yadav	Datia			Datia	
			M.K. Meena P. Jakhar	Koraput			Koraput	
			Ashok Kumar H.R. Meena I. Rashmi	Kota			Kota	
			P. Sundarambal K. Kannan P. Raja O.P.S. Khola	Udhagamandalam			Udhagamandalam	
			V.C. Pande Raj Kumar	Vasad			Vasad	
73.	NRMAIISWCCIL 201601500129	Determination of heterogeneity in agro-forestry practices and acceptability alongwith altitude gradient in Western Himalayas.	Charan Singh Vibha Singhal Bankey Bihari	HRD&SS, Dehradun	2016-17	2018-19	Dehradun district	To be continued (New Project)
Comments: All three elevations with irrigated and rainfed systems may be taken. Policy paper on agro-forestry may be prepared. Schedule may be submitted in one month. (Action: Dr. Charan Singh)								
74.	NRMAIISWCCIL 201601600130	Assessment of sustainability factors for soil and water conservation projects.	Rajesh Bishnoi Lakhan Singh Bankey Bihari N.M. Alam	HRD&SS, Dehradun	2016-17	2018-19	Dehradun & Tehri Garhwal districts	To be continued (New Project)
Comments: One state government executed project may be included in the study. Extensive review may be done. (Action: Mr. Rajesh Bishnoi)								
75.	NRMAIISWCCIL 201502700113	Documentation and validation of ITKs in soil and water conservation practiced by tribal farmers of Tamil Nadu.	P. Sundarambal P. Raja R. Ragupathy K. Kannan	Udhagamandalam	2015-16	2018-19	Tribal districts of Tamil Nadu	To be continued
Comments: Progress is very good. Dr. P. Raja will replace Dr. D. Dinesh as first associate. (Action: Dr.(Ms.) P. Sundarambal)								

PROJECTS CONCLUDED DURING THE YEAR 2015-16

S. No.	Prog. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Year of Start	Location of Project
1	1.2	NRMACSWCRTI SOP201300100075	Application of dynamic simulation models to establish erosion productivity relationships and soil organic carbon sequestration potential for a future changing climate.	P.K. Mishra D.R. Sena D. Mandal S. Patra	Hydrology & Engineering, Dehradun	2013-14	Headquarters
Comments: Progress is excellent.							
2	1.3	NRMACSWCRTI CIL201100300049	Effect of slope and land uses on soil carbon stock and soil quality in the Nilgiris.	K. Rajan O.P.S. Khola R. Ragupathy V.K. Thilagam	Udhagamandalam	2011-12	The Nilgiris district
Comments: Progress is very good.							
3	2.1	NRMACSWCRTI CIL200500100005	Evaluating productivity potential of bhimal (<i>Grewia optiva</i>) along with field crops.	Harsh Mehta D. Mandal S.S. Shrimali Lekh Chand	Plant Science, Dehradun	2005-06	Almas, Ranigaon, Sabhawala & Selakui villages
Comments: Progress is very good. RPP – IV may be submitted.						(Action: Dr. Harsh Mehta)	
4	2.1	NRMACSWCRTI CIL200800400017	Productivity enhancement in fruit and flower based two tier horticulture systems through integrated nutrient management and mulching.	A.C. Rathore B.N. Ghosh	Plant Science, Dehradun	2008-09	Research Farm
Comments: Progress is very good.							
5	2.1	NRMACSWCRTI CIL200800200015	Evaluation of organic farming vis-à-vis inorganic farming for resource conservation and sustained productivity under prominent cropping system.	B.N. Ghosh Ramanjeet Singh S. Patra	HRD&SS, Dehradun	2008-09	Research Farm
Comments: Progress is very good.							
6	2.1	NRMACSWCRTI CIL201100700053	Performance of Tamarind near S&WC structures with different mulches in vertisols of SAT region.	A. Raizada B.S. Naik H. Biswas A.S. Morade	Bellary	2011-12	Research Farm
Comments: Progress is very good.							
7	2.2	NRMACSWCRTI CIL200800600019	Enhancement of guava productivity through canopy management and mulching in rainfed bouldery riverbed lands.	A.C. Rathore B.N. Ghosh	Plant Science, Dehradun	2008-09	Research Farm
Comments: Progress is very good. RPP IV may be submitted.						(Action: Dr. A.C. Rathore)	

S. No.	Prog. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Year of Start	Location of Project
8	2.2	NRMACSWCRTI CIL200600200009	Evaluation of different underutilized fruit species with varying inter-space managements in Chambal ravines.	H.R. Meena A.K. Parandiyal Ashok Kumar G.L. Meena S. Kala	Kota	2006-07	Research Farm
Comments: Progress is very good.							
9	2.2	NRMACSWCRTI CIL200800900022	Evaluation of promising oilseed tree species under silvi-pastoral system for rehabilitation of Chambal ravines.	S. Kala A.K. Parandiyal Ashok Kumar G.L. Meena	Kota	2008-09	Research Farm
Comments: Progress is very good.							
10	2.2	NRMACSWCRTI CIL201101600062	Evaluation of carbon sequestration potential of different tree based production systems in South-eastern Rajasthan.	S. Kala A.K. Parandiyal R.K. Singh B.L. Mina	Kota	2011-12	Research Farm & Sahabad Range Forest
Comments: Progress is very good.							
11	3.1	NRMACSWCRTI CIL200400200003	Hydrological implication of sequential alteration of land use covers in a ravine catchment.	R.S. Kurothe V.C. Pande Gopal Kumar	Vasad	2004-05	Research Farm
Comments: Progress is good.							
12	3.2	NRMACSWCRTI CIL201102000066	Conservation Bench Terrace (CBT) based integrated farming system in Himalayan foothills.	Ambrish Kumar N.K. Sharma B.L. Dhyan M. Muruganandam N.M. Alam	HRD&SS, Dehradun	2011-12	Research Farm
Comments: Progress is very good. The results may be demonstrated under ToT programme. (Action: Dr. Ambrish Kumar)							
13	3.2	NRMACSWCRTI CIL201000600042	Developing SALT (Sloping Agricultural Land Technology) for resource conservation and economic upliftment in Shiwaliks.	Pankaj Panwar Ram Prasad V.K. Bhatt Sharmistha Pal	Chandigarh	2010-11	Research Farm
Comments: Progress is excellent. RPP IV may be submitted. (Action: Dr. Pankaj Panwar)							
14	3.2	NRMACSWCRTI CIL201101900065	Enhancement in land productivity and livelihood security of small farmers of Nilgiris through multiple use of harvested water.	S. Manivannan O.P.S. Khola K. Rajan	Udhagamandalam	2011-12	Research Farm
Comments: Progress is very good. RPP IV may be submitted. (Action: Dr. S. Manivannan)							

S. No.	Prog. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Year of Start	Location of Project
15	3.3	NRMACSWCRTI CIL201102300069	Development of a user friendly Decision Support System application for planning of watershed development project.	P.R. Ojasvi P.K. Mishra Charan Singh N.K. Sharma D.V. Singh	Hydrology & Engineering, Dehradun	2011-12	Almas, Distt. Tehri Garhwal
Comments: Progress is very good.							
16	4.1	NRMACSWCRTI COL201300300077	Prototype field study on application of potentially important jute geo-textiles for hill slope stabilization.	S. Manivannan O.P.S. Khola K. Kannan K. Rajan	Udhagamandalam	2013-14	Research Farm
Comments: Progress is very good.							

NEW PROJECTS APPROVED DURING IRC MEETING – 2016

S. No.	Prog. No.	S. No. of this proc. with RPP No.	Title of the Project	Centre / Division
1.	1.3	13 (NRMAIISWCCIL 201600100115)	Assessing the vegetation and SOC recovery potentials of abandoned / fallowed shifting cultivated sites in Central Eastern Ghats.	Koraput
2.	2.1	15 (NRMAIISWCCIL 201600200116)	Effect of varying water regimes on Zn and N dynamics and rice productivity in saline vertisols.	Bellary
3.	2.1	21 (NRMAIISWCCIL 201600300117)	Resource conservation and productivity enhancement through organic and inorganic amendments in soyabean-mustard cropping systems.	Kota
4.	2.2	24 (NRMAIISWCCIL 201600400118)	Improvisation of soil working techniques for enhancing tree establishment under rainfed conditions of North-Western Himalayas.	Soil Science & Agronomy, Dehradun
5.	2.2	25 (NRMAIISWCCIL 201600500119)	Soil fertility restoration and carbon sequestration potential of five agro-forestry trees in Himalayan foothills.	HRD&SS, Dehradun
6.	2.2	39 (NRMAIISWCCIL 201600600120)	Evaluation, characterization and development of elite genotypes of <i>Cassia auriculata</i> for cultivation in arid and semi-regions.	Kota
7.	2.2	41 (NRMAIISWCCIL 201600700121)	Resource utilization and productivity of Dragon fruit based horti-silviculture system under rainfed agro eco-systems of Central Gujarat.	Vasad
8.	3.2	56 (NRMAIISWCCOL 201600800122)	Development of cost effective plastic check dams for water harvesting in rainfed regions. (Extra Mural Project)	Vasad
9.	4.1	59 (NRMAIISWCCOL 201600900123)	Field evaluation of refinement of ravine reclamation technology in a model ravine area development project at Lohli-Bagli village in district Bundi (Rajasthan). (Govt. of Rajasthan funded)	Kota
10.	5.1	64 (NRMAIISWCCIL 201601000124)	Socio-economic analysis of farming/livelihood systems of farmers across different land categories in Yamuna ravine area.	Agra
11.	5.1	65 (NRMAIISWCCOL 201601100125)	Refining methodologies for data validation, planning, monitoring and evaluation of watersheds. (Sujala – III Project)	Bellary
12.	5.2	67 (NRMAIISWCCOL 201601200126)	Devising economic frame work for ecosystem services payment and farmers' livelihood in Mahi and Chambal ravine ecosystems. (Extra Mural Project)	Vasad, Kota
13.	6.1	69 (NRMAIISWCCOL 201601300127)	Creation of ICT network to disseminate knowledge about the soil and water conservation technologies to farmers in Himalayan region. (Extra Mural Project)	HRD&SS, Dehradun
14.	6.2	72 (NRMAIISWCCIL 201601400128)	Assessing farmers knowledge, vulnerability and adopting capacity of soil and water conservation technologies under changing climatic scenario.	HRD&SS/Agra/ Bellary/Chandigarh/ Datia/Koraput/Kota Udhagamandalam/ Vasad

S. No.	Prog. No.	S. No. of this proc. With RPP No.	Title of the Project	Centre / Division
15.	6.2	73 (NRMAIISWCCIL 201601500129)	Determination of heterogeneity in agro-forestry practices and acceptability alongwith altitude gradient in Western Himalayas.	HRD&SS, Dehradun
16.	6.2	74 (NRMAIISWCCIL 201601600130)	Assessment of sustainability factors for soil and water conservation projects.	HRD&SS, Dehradun

STATUS OF NUMBER OF PROJECTS

No. of projects in 2015-16	Projects concluded in 2015-16	New projects added in 2016-17	Total no. of projects in 2016-17
A	B	C	D = A-B+C
75	16	16	75

TOTAL NUMBER OF PROJECTS IN DIFFERENT RESEARCH PROGRAMMES

Research Programmes	P-1	P-2	P-3	P-4	P-5	P-6	Total
Total No. of Projects	13	28	15	05	06	08	75

OBSERVATIONAL TRIALS APPROVED FOR 2016-17

S. No.	Title of project	Leader & Associates	Centre / Division
1.	Development of conservation agriculture practices for rainfed production systems in different agro-ecological regions of India.	N.K. Sharma, Ramanjeet Singh Uday Mandal, A.K. Gupta	SS&A, Dehradun
		Dileep Kumar, R.B. Meena, A.K. Singh, D.C. Meena, Rama Pal	Agra
		Dev Narayan, Rajeev Ranjan Monalisha Pramanik	Datia
		M. Madhu Ch. J.P. Dash, M.K. Meena	Koraput
Comments: The study may be conducted for one more year during 2016-17 as an Observational Trial and infrastructure should be ensured for taking up as a project. Project is deleted at Udhagamandalam Centre. (Action: Dr. N.K. Sharma and leaders at different locations)			
2.	Determining resource conservation potential of bio-degradable wastes and their on farm utilization to increase crop productivity and profitability.	Lekh Chand, N.K. Sharma U.K. Maurya, N.M. Alam	SS&A, Dehradun
Comments: The study may be conducted for one more year during 2016-17 as an Observational Trial and presented in the next IRC meeting after finalizing the treatments. (Action: Dr. Lekh Chand)			
3.	Evaluation of strategic tillage based agro-geo-textiles for resource conservation and yield simulation of maize based cropping systems.	Ramanjeet Singh S. Patra, N.M. Alam A.K. Gupta	SS&A, Dehradun
Comments: The project may be conducted for one more year during 2016-17 as an Observational Trial. (Action: Dr. Ramanjeet Singh)			
4.	Improving out-planting success of various multipurpose tree species in Yamuna ravines using improved planting stock and bio-fertilizers.	A.K. Parandiyal R.B. Meena	Agra
Comments: The project may be conducted as an Observational Trial for 2016-17 on five species out of fifteen species proposed. (Action: Dr. A.K. Parandiyal)			
5.	Investigation on effect of biodegradable polymer treatment on irrigation planning and water use efficiency in sandy loam soils of reclaimed Yamuna ravine.	K.K. Sharma R.B. Meena Dileep Kumar, S.K. Dubey	Agra
Comments: The project may be carried out as an Observational Trial for 2016-17 and results may be presented in next IRC meeting. (Action: Dr. K.K. Sharma)			
6.	Evaluation of integrated nutrient management and plant growth regulator in pearl millet-wheat/ mustard sequence on reclaimed Yamuna ravine.	R.K. Dubey S.K. Dubey Rama Pal, A.K. Singh	Agra
Comments: The study may be conducted as an Observational Trial for 2016-17 with modified and reduced treatments and presented in the next IRC meeting. (Action: Dr. R.K. Dubey)			
7.	Evaluation of direct recharge filter for revival of defunct and low yielding bore well <i>vis-à-vis</i> augmentation of ground water table in semi arid region of Karnataka.	B.S. Naik Suresh Kumar	Bellary
Comments: The project may be conducted as an Observational Trial for 2016-17. Project may be designed scientifically and cost analysis may also be done. (Action: Dr. B.S. Naik)			
8.	Regulated deficit irrigation and canopy architecture management for fig (<i>Ficus carica</i> L.) in semi-arid vertisols.	A.S. Morade A. Raizada, H. Biswas	Bellary
Comments: The study may be conducted as an Observational Trial for 2016-17. Plants may be established after the plantation. Water requirement may also be worked out. (Action: Mr. A.S. Morade)			

NEW PROJECT PROPOSALS SUBMITTED FOR CONSIDERATION IN THE RAC/IRC MEETINGS -2016

New Project Proposals Agreed by the RAC

S.N	Prog. No.	Title of Project	Leader & Associate	Duration	Location of Project	Remarks of the RAC	Remarks of IRC
SOIL SCIENCE & AGRONOMY DIVISION, DEHRADUN							
1.	2.2	Improvisation of soil working techniques for enhancing tree establishment under rainfed conditions of North-Western Himalayas.	D.V. Singh R. Kaushal D.M. Kadam	2016-17 to 2019-20	Sainj & Hattal villages, Chakrata, Dehradun	Agreed	Approved
HUMAN RESOURCE DEVELOPMENT AND SOCIAL SCIENCE DIVISION, DEHRADUN							
2.	6.2	Assessing farmers knowledge, vulnerability and mitigating capacity of soil and water conservation technologies under changing climatic scenario.	Lakhan Singh Rajesh Bishnoi Bankey Bihari N.M. Alam A.K. Gupta M. Madhu M.K. Meena Suresh Kumar A. Raizada A.S. Morade Om Prakash Rajeev Ranjan	2016-17 to 2018-19	Central Eastern Ghats (Malkangiri, Koraput, Rayagada and Vishakapatnam districts) Koraput Bellary Datia	Agreed	Approved as core project at Headquarter and all Research Centres.
3.	6.2	Analysing factors for participatory and sustainable post project management of watersheds.	Rajesh Bishnoi P.K. Mishra Lakhan Singh Bankey Bihari	2016-17 to 2017-18	Dehradun & Tehri Garhwal districts	Agreed	Approved with modified title.
4.	6.2	Assessment of adoption rate and factors affecting adoption of agro-forestry based interventions for resource conservation and productivity enhancement along the altitudinal gradient in western Himalayas.	Vibha Singhal	2016-17 to 2018-19	Dehradun district	Agreed • Dr. Charan Singh should reframe this project for presentation in the IRC meeting.	Approved with modified title and leadership of Dr. Charan Singh.
5.	2.2	Biological soil restoration and carbon sequestration potential of multipurpose indigenous tree species (<i>Bauhinia variegata</i> , <i>Ficus roxburghii</i>) from western Himalayas.	Vibha Singhal	2016-17 to 2018-19	Dehradun district	Agreed with comments • Objectives not matching with title. • Number of species should be increased. <i>Grewia</i> , <i>Celtis</i> and <i>Salix</i> should be included. • Review the earlier work done.	Approved with modified title.

PLANT SCIENCE DIVISION, DEHRADUN							
6.	2.2	Emerging mulching techniques for enhancing quality and productivity of promising fruit species in North-West Himalayas.	D.M. Kadam D.V. Singh A.C. Rathore J. Jayaprakash A.K. Gupta	2016-17 to 2020-21	Uttarkashi district & Research Farm, Selakui	Agreed • Jute mulch should also be included in the treatment.	Not Presented hence, Not Approved.
AGRA							
7.	2.2	Improving out-planting success of various multipurpose tree species in Yamuna ravines using improved planting stock and bio-fertilizers.	A.K. Parandiyal R.B. Meena	2016-17 to 2021-22	Research Farm	Agreed with comments • Lot of work has been done earlier in ravine areas for making choice of species. Therefore, only recommended species of short, medium and long rotation should be used for the study. • For biofertilizer treatment, consortium should be used to get better results.	Approved as an Observational Trial for one year.
8.	2.1	Evaluation of suitable cropping system in the era of climatic change in Yamuna ravine area.	Dileep Kumar R.B. Meena D.C. Meena A.K. Singh	2016-17 to 2021-22	Research Farm	Agreed with comments • Mung bean-mustard cropping system has been recommended earlier from productivity point of view. Justify the need of other treatments. • Review the work of Dr. SK Sharma and how it differs from previous work. • How the project is related to climate change as mentioned in title? • Review the work of AICRP dry centre.	Not Approved Literature may be reviewed and presented in the next IRC meeting.
9.	2.2	Assessment of carbon sequestration potential of various soil conserving grasses and consequential soil carbon dynamics in ravine affected lands.	R.B. Meena A.K. Parandiyal K.K. Sharma D.C. Meena	2016-17 to 2020-21	Research Farm	Agreed with comments • Lot of work has been done earlier on grasses. Justify how the study it is different from previous work • Add fine root dynamics in the objectives.	Not Approved
10.	5.1	Socio-economic analysis of farming/livelihood systems of farmers across different land categories in Yamuna ravine area.	D.C. Meena	2016-17 to 2019-20	Ravine areas in U.P.	Agreed	Approved

11.	3.2	Investigations on effect of biodegradable polymer treatment on irrigation planning and water use efficiency in sandy loam soils of reclaimed Yamuna ravines.	K.K. Sharma R.B. Meena Dileep Kumar S.K. Dubey	2016-17 to 2018-19	Research Farm	Agreed with comments <ul style="list-style-type: none"> Hydrogel treatment developed by IARI should be included. Gaps should be identified from the previous work. 	Approved as an Observational Trial for one year.
12.	2.1	Evaluation of integrated nutrient management and plant growth regulator in pearl millet-wheat/mustard sequence on reclaimed Yamuna ravine.	R.K. Dubey S.K. Dubey Rama Pal A.K. Singh	2016-17 to 2018-19	Research Farm	Agreed with comments <ul style="list-style-type: none"> Only one cropping system i.e pearl millet-mustard. should be studied Only one fertilizer dose (100 % RDF) should be given. Manures/biofertilizers should be main plot treatments. Sub plot treatments of PGRs need to be checked and justified. 	Approved as an Observational Trial for one year.
BELLARY							
13.	3.2	Evaluation of direct recharge filter for revival of defunct and low yielding bore well <i>vis-à-vis</i> augmentation of ground water table in semi arid region of Karnataka.	B.S. Naik Suresh Kumar	2016-17 to 2022-23	Netranahalli & Ramsagar watersheds	Agreed with comments <ul style="list-style-type: none"> The study needs to be done on watershed scale. Review the work done by Vasad, Central Ground Water Board and AICRP and best recharge filter should be used. Details of direct recharge filter should be discussed in IRC. 	Approved as an Observational Trial for one year.
14.	2.2	Regulated deficit irrigation and canopy architecture management for fig (<i>Ficus carica</i> L.) in semi-arid vertisols.	A.S. Morade A. Raizada H. Biswas	2016-17 to 2022-23	Research Farm	Agreed with comments <ul style="list-style-type: none"> Review the earlier work done. 	Approved as an Observational Trial for one year.
15.	2.1	Impact of varying water regimes and zinc (Zn) availability on rice productivity in salt affected vertisols of the Deccan.	M. Prabhavathi H. Biswas	2016-17 to 2018-19	Research Farm	Agreed with comments <ul style="list-style-type: none"> Check for IR 64 paddy variety. Treatments need to be explained scientifically. 	Approved with modified title.
KORAPUT							
16.	2.2	Assessing the recovery potentials of abandoned shifting cultivated sites in Central Eastern Ghats.	H. Gowda	2016-17 to 2018-19	Central Eastern Ghats (Malkangiri, Koraput, Rayagada and Vishakapatnam districts)	Agreed	Approved with modified title.

KOTA							
17.	2.2	Evaluation, characterization and popularization of elite genotypes of <i>Cassia auriculata</i> for commercial cultivation in arid and semi-regions.	S. Kala H.R. Meena I. Rashmi Shakir Ali R.K. Singh	2016-17 to 2020-21	Research Farm	Agreed	Approved with modified title.
18.	2.1	Resource conservation and improving nutrient use efficiency through different organic and inorganic amendments.	I. Rashmi B.L. Mina S. Kala Kuldeep Kumar Shakir Ali R.K. Singh	2016-17 to 2021-22	Research Farm	Agreed with comments <ul style="list-style-type: none"> • Treatments of elemental sulphur and gypsum need to be justified. • Soil and water conservation treatments need to be included. • PI should contact ADG (SWM) for refining the project treatments. 	Approved with modified title.
Vasad							
19.	2.2	Resource utilization and productivity of Dragon fruit based horti-silviculture system under rainfed agro eco-systems of Central Gujarat.	V. Kakade P.R. Bhatnagar B.K. Rao D. Dinesh	2016-17 to 2021-22	Research Farm	Agreed	Approved

New Project Proposals Not Agreed by the RAC

S.No	Prog. No.	Title of Project	Leader & Associate	Centre/Division	Remarks of the RAC
1.	6.1	Effectiveness of four months certificate course on soil & water conservation and watershed management - An analytical study.	Lakhan Singh Bankey Bihari Rajesh Bishnoi	HRD&SS, Dehradun	Not Agreed
2.	2.2	Enhancing the production of traditional land use system through soil and water conservation technologies in sub-Himalayan region under TSP project.	Charan Singh	HRD&SS, Dehradun	Not Agreed
3.	2.2	Comparative evaluation of agri-horti and agroforestry systems in semi-arid tropical region of Agra.	A.K. Parandiyal Dileep Kumar D.C. Meena R.B. Meena	Agra	Not Agreed
4.	4.1	Evaluation of effectiveness of geo-jute textiles in stabilization of slopes of medium and deep Yamuna ravines.	S.K. Dubey K.K. Sharma R.K. Dubey A.K. Parandiyal Rama Pal	Agra	Not Agreed <ul style="list-style-type: none"> Network project on geojute will be taken-up at Research Centre, Agra.
5.	2.2	Performance of custard apple, curry leaf and drumstick in rainfed multi-cropping system under marginal soils.	A.S. Morade A. Raizada H. Biswas	Bellary	Not Agreed <ul style="list-style-type: none"> Lot of work has been done in Belvadgy command area under AICRP.
6.	5.1	Refining methodologies for data validation, planning, monitoring and evaluation of watersheds.	A. Raizada S.L. Patil H. Biswas B.S. Naik M. Prabhavathi Suresh Kumar A.S. Morade	Bellary	Not Agreed <ul style="list-style-type: none"> It is an externally funded project and will be discussed in IRC.
7.	1.1	Characterization and zonation of groundwater potential sites in the sub-basin of lower bhavani catchment using geospatial technologies.	P. Raja S. Manivannan O.P.S. Khola V.K. Thilagam	Udhagamandalam	Not Agreed by the RAC however, presented in IRC and it was suggested by the House for modification and re-submission next year through RAC.

DIVISION/CENTRE-WISE NUMBER OF ON-GOING PROJECTS**A. S. NO. OF PROJECTS AT DIFFERENT LOCATIONS**

S. No.	DIVISION / CENTRE	S. NO. OF ON-GOING PROJECTS	TOTAL
1.	Dehradun		
	➤ Soil Science & Agronomy	1, 6, 9, 10, 24, 46, 70, 71	08
	➤ HRD&SS	25, 48, 69, 72, 73, 74	06
	➤ Hydrology & Engineering	2, 7, 8, 12, 47, 57, 63, 68	08
	➤ Plant Science	26, 27, 28, 29, 30, 31, 32, 42, 43,49	10
	➤ PME Cell	62	01
	➤ National Fellow Programme	11	01
2.	Agra	5, 9, 43, 47, 50, 51, 60, 62, 64, 72	10
3.	Bellary	9, 14, 15, 33, 47, 52, 62, 65, 72	09
4.	Chandigarh	6, 9, 16, 17, 34, 35, 43, 47, 60, 62, 72	11
5.	Datia	3, 7, 9, 18, 36, 37, 47, 60, 62, 72	10
6.	Koraput	4, 7, 9, 13, 19, 38, 44, 47, 60, 62, 66, 72	12
7.	Kota	5, 9, 20, 21, 39, 43, 47, 53, 58, 59, 60, 62, 67, 72	14
8.	Udhagamandalam	9, 22, 40, 45, 47, 60, 62, 72, 75	09
9.	Vasad	7, 9, 23, 41, 47, 54, 55, 56, 60, 61, 62, 67, 72	13
		TOTAL	122

B. PROGRAMME-WISE NUMBER OF PROJECTS AT DIFFERENT LOCATIONS

S. No.	DIVISION / CENTRE	P-1	P-2	P-3	P-4	P-5	P-6	TOTAL
1.	Dehradun							
	➤ Soil Science & Agronomy	4	1	1	-	-	2	08
	➤ HRD&SS	-	1	1	-	-	4	06
	➤ Hydrology & Engineering	4	-	1	1	1	1	08
	➤ Plant Science	-	7	3	-	-	-	10
	➤ PME Cell	-	-	-	-	1	-	01
	➤ National Fellow Programme	1	-	-	-	-	-	01
2.	Agra	2	-	4	1	2	1	10
3.	Bellary	1	3	2	-	2	1	09
4.	Chandigarh	2	4	2	1	1	1	11
5.	Datia	3	3	1	1	1	1	10
6.	Koraput	4	2	2	1	2	1	12
7.	Kota	2	3	3	3	2	1	14
8.	Udhagamandalam	1	2	2	1	1	2	09
9.	Vasad	2	2	4	2	2	1	13
	TOTAL	26	28	26	11	15	16	122

NUMBER OF PROJECTS WITH INDIVIDUAL SCIENTIST

The number of projects with each individual scientist of the Institute, after the IRC Meeting of 2016 is as follows:

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
1.	Dr. P.K. Mishra	Director	1(6)	4(1,7,47,56)	5	7,47,56
Soil Science and Agronomy Division						
2.	Dr. N.K. Sharma	Head of Division	-	3(6,9,62)	3	62
3.	Dr. D.V.Singh	Pr. Scientist (Soils)	2(24,70)	2(29,32)	4	-
4.	Dr. D. Mandal	ICAR-National Fellow	2(9,11)	2(30,57)	4	30
5.	Dr. U.K. Maurya	Sr. Scientist (Soils)	1(46)	4(4,6,48,49)	5	4
6.	Dr. Lekh Chand	Sr. Scientist (Agro.)	-	2(6,10)	2	-
7.	Dr. N.M. Alam	Scientist (SS) (Ag. Stat.)	1(1)	6(6,7,12,44,68,74)	7	7
8.	Dr. M. Shankar	Scientist (Soils)	1(10)	1(27)	2	27
9.	Dr. Ramanjeet Singh	Scientist (Agro.)	1(71)	5(6,43,68,69,70)	6	69
Human Resource Development and Social Science Division						
10.	Dr. Lakhan Singh	Head of Division	2(69,72)	3(6,71,74)	5	69
11.	Dr. Charan Singh	Pr. Scientist (Forestry)	1(73)	3(6,25,70)	4	-
12.	Dr. Bankey Bihari	Pr. Scientist (Ag. Extn.)	-	6(6,68,69,72,73,74)	6	69
13.	Dr. Ambrish Kumar	Pr. Scientist (Engg.)	1(48)	7(6,29,30,42,46,47,49)	8	30,47
14.	Dr.(Ms.)Vibha Singhal	Sr. Scientist(Agro Forestry)	1(25)	2(24,73)	3	-
15.	Dr.(Ms) Indu Rawat	Scientist(Home Management/FRM)	-	1(72)	1	-
16.	Mr. Rajesh Bishnoi	Scientist (Agril. Extn.)	1(74)	2(69,72)	3	69
17.	Dr.(Ms.) Trisha Roy	Scientist (Soils)	-	4(6,12,25,26)	4	-
Hydrology and Engineering Division						
18.	Dr. P.R. Ojasvi	Head of Division	2(2,47)	3(6,12,65)	5	47
19.	Dr. D.R. Sena	Pr. Scientist (Engg.)	1(7)	4(1,6,8,10)	5	7
20.	Er. S.S. Shrimali	Sr. Scientist (Com.App.)	1(57)	5(6,47,65,68,69)	6	47,69
21.	Dr. M. Muruganandam	Sr. Scientist (Fisheries)	1(63)	2(6,43)	3	-
22.	Er. S. Patra	Scientist (SS) (Engg.)	1(12)	1(9)	2	-
23.	Ms. Chayna Jana	Scientist (Ag. Stat.)	1(68)	7(1,6,7,8,12,57,63)	8	7
24.	Er. Uday Mandal	Scientist (Engg.)	1(8)	6(2,6,7,43,48,63)	7	7
25.	Er. Deepak Singh	Scientist (Engg.)	-	3(9,12,70)	3	-
Plant Science Division						
26.	Dr. Harsh Mehta	I/c Head of Division	2(26,31)	1(32)	3	-
27.	Dr. J.M.S. Tomar	Pr. Scientist (Forestry)	3(27,28,43)	3(6,26,29)	6	27,28
28.	Dr. Rajesh Kaushal	Sr. Scientist (Forestry)	2(29,30)	6(6,12,28,31,49,68)	8	28,30
29.	Dr. A.C. Rathore	Sr. Scientist (Hort.)	-	5(6,12,32,43,62)	5	62
30.	Dr. J. Jayaprakash	Sr. Scientist (Forestry)	2(32,42)	3(24,27,30)	5	27,30
31.	Mr. A.K. Gupta	Scientist (Envt. Sc.)	1(49)	6(6,28,31,48,63,72)	7	28
32.	Mr. D.M. Kadam	Scientist (Hort.)	-	3(24,69,70)	3	69
Prioritization, Monitoring and Evaluation Cell						
33.	Dr. G.C. Sharma	Pr. Scientist (Ag. Stat.)	-	1(1)	1	-
34.	Dr. Pradeep Dogra	Pr. Scientist (Ag. Eco.)	1(62)	3(6,9,65)	4	62
35.	Dr. B.L. Dhyani	Sr. Scientist (Ag. Eco.)	-	-	-	-

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
Research Centre, Agra						
36.	Dr. S.K. Dubey	Head of Centre	1(9)	5(5,43,50,51,72)	6	5,50
37.	Dr. A.K. Parandiyal	Pr. Scientist (Forestry)	1(60)	2(43,64)	3	-
38.	Dr. A.K. Singh	Pr. Scientist (Engg.)	1(62)	4(9,47,51,60)	5	47,62
39.	Dr. K.K. Sharma	Sr. Scientist (Engg.)	3(43,47,50)	1(5)	4	5,47,50
40.	Dr. R.K. Dubey	Sr. Scientist (Agro.)	-	3(9,51,72)	3	-
41.	Dr. R.B. Meena	Scientist (Soils)	1(5)	2(47,60)	3	5,47
42.	Dr. Dileep Kumar	Scientist (Agro.)	-	4(43,50,62,64)	4	50,62
43.	Dr. D.C. Meena	Scientist (Ag. Eco.)	2(64,72)	1(62)	3	62
44.	Dr.(Ms.) Rama Pal	Scientist (Envt.Sc.)	1(51)	-	1	-
Research Centre, Bellary						
45.	Dr. A. Raizada	Head of Centre	1(65)	4(33,47,52,72)	5	47,52
46.	Dr. S.L. Patil	Pr. Scientist (Agro.)	1(62)	3(9,14,65)	4	62
47.	Dr. H. Biswas	Sr. Scientist (Soils)	2(9,14)	5(15,33,47,62,65)	7	47,62
48.	Er. B.S. Naik	Scientist (S.S.) (Engg.)	1(47)	1(65)	2	47
49.	Er. S.K. Srivastava	Scientist (Engg.)	-	-	-	-
50.	Mr. M.N. Ramesha	Scientist (Forestry)	1(33)	-	1	-
51.	Ms. M. Prabhavathi	Scientist (Soils)	1(15)	1(65)	2	-
52.	Mr. Suresh Kumar	Scientist (Ag. Eco.)	2(52,72)	4(6,14,62,65)	6	52,62
53.	Mr. A.S. Morade	Scientist (Hort.)	-	2(65,72)	2	-
Research Centre, Chandigarh						
54.	Dr. A.K. Tiwari	Head of Centre	1(60)	3(6,9,47)	4	47
55.	Dr.(Ms.) Pawan Sharma	Pr. Scientist (Soils)	1(17)	2(6,16)	3	16,17
56.	Dr. (Ms.) S.L. Arya	Pr. Scientist (Ag. Eco.)	2(62,72)	3(6,16,34)	5	16,62
57.	Dr. V.K. Bhatt	Pr. Scientist (Engg.)	2(43,47)	4(6,17,35,60)	6	17,35,47
58.	Dr. Ram Prasad	Pr. Scientist (Horti.)	1(34)	4(6,35,43,62)	5	35,62
59.	Dr. Pankaj Panwar	Pr. Scientist (Forestry)	2(6,35)	4(43,47,60,72)	6	35,47
60.	Dr.(Ms.)Sharmistha Pal	Scientist (SS) (Soils)	2(9,16)	5(6,34,35,47,72)	7	16,35,47
61.	Dr. Sathiya K.	Scientist (Agro.)	-	2(16,17)	2	16,17
Research Centre Datia						
62.	Dr. R.S. Yadav	Head of Centre	-	4(3,18,36,72)	4	-
63.	Dr. S.P. Tiwari	Pr. Scientist (Soils)	-	4(7,9,37,60)	4	7
64.	Dr. Dev Narayan	Pr. Scientist (Agro.)	3(9,18,62)	-	3	62
65.	Dr. Om Prakash	Pr. Scientist (Ag. Extn.)	1(72)	1(3)	2	-
66.	Dr. Rajeev Ranjan	Scientist (Soils)	1(3)	5(7,37,47,62,72)	6	7,47,62
67.	Er.(Ms.) Monalisha Pramanik	Scientist (Engg.)	3(7,47,60)	4(3,9,36,37)	7	7,47
68.	Mr. Manish Kumar	Scientist (Forestry)	2(36,37)	4(3,18,47,60)	6	47
Research Centre, Koraput						
69.	Dr. M. Madhu	Head of Centre	1(38)	4(4,7,9,66)	5	4,7
70.	Dr. D.C. Sahoo	Sr. Scientist (Engg.)	3(19,47,60)	4(7,38,44,66)	7	7,47
71.	Dr. H. Gowda	Scientist (Forestry)	1(13)	2(38,60)	3	-
72.	Dr. P. Jakhar	Scientist (Agro.)	-	4(13,19,47,72)	4	47
73.	Dr. P.P. Adhikary	Scientist (Soils)	2(7,9)	6(4,19,38,44,60,66)	8	4,7
74.	Dr.(Ms.) Ch. J.P. Dash	Scientist (Engg.)	2(4,44)	2(7,47)	4	4,7,47
75.	Mr. M.K. Meena	Scientist (Ag.Eco.)	3(62,66,72)	1(19)	4	62
76.	Mr. Karm Beer	Scientist (Hort.)	-	2(13,19)	2	-

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
Research Centre, Kota						
77.	Dr. R.K. Singh	Head of Centre	2(9,59)	3(5,47,53)	5	5,47
78.	Dr. Ashok Kumar	Pr. Scientist (Ag. Eco.)	3(62,67,72)	4(20,21,58,59)	7	62,67
79.	Dr. Shakir Ali	Pr. Scientist (Engg.)	2(43,60)	5(20,21,39,58,59)	7	-
80.	Dr. B.L. Mina	Sr. Scientist (Soils)	1(58)	6(9,20,21,43,59,67)	7	67
81.	Mr. H.R. Meena	Scientist (SS) (Hort.)	-	7(39,43,53,58,59,62,72)	7	62
82.	Dr. G.L. Meena	Scientist (Soils)	3(5,47,53)	1(59)	4	5,47
83.	Dr. Kuldeep Kumar	Scientist (Agro.)	1(20)	3(9,21,59)	4	-
84.	Dr. (Ms.) S. Kala	Scientist (Forestry)	1(39)	5(43,58,59,60,67)	6	67
85.	Dr. (Ms.) I. Rashmi	Scientist (Soils)	1(21)	3(39,59,72)	4	-
Research Centre, Udhagamandalam						
86.	Dr. O.P.S. Khola	Head of Centre	-	4(22,45,47,72)	4	47
87.	Dr. K. Kannan	Pr. Scientist (Agro.)	3(9,22,62)	3(60,72,75)	6	62
88.	Dr. S. Manivannan	Pr. Scientist (Engg.)	2(47,60)	1(45)	3	47
89.	Dr.(Ms) P.Sundarambal	Pr. Scientist (Ag. Extn.)	2(72,75)	-	2	-
90.	Dr. K. Rajan	Pr. Scientist (Soils)	-	3(40,45,60)	3	-
91.	Dr. P. Raja	Sr. Scientist (Soils)	-	5(9,22,62,72,75)	5	62
92.	Dr. R. Ragupathy	Scientist (SS)(Forestry)	1(40)	1(75)	2	-
93.	Er. (Ms) V. Selvi	Scientist (SS) (Engg.)	----- On Study Leave -----			
94.	Dr.(Ms) V.K. Thilagam	Scientist (Soils)	1(45)	2(22,47)	3	47
Research Centre, Vasad						
95.	Dr. P.R. Bhatnagar	Head of the Centre	3(47,55,60)	5(7,41,54,56,67)	8	7,47,54,56,67
96.	Dr. V.C. Pande	Pr. Scientist (Ag.Eco.)	3(62,67,72)	6(6,7,23,55,60,61)	9	7,23,62,67
97.	Dr. B.K. Rao	Sr. Scientist (Engg.)	4(7,23,54,56)	2(47,61)	6	7,23,47,54,56
98.	Dr. Raj Kumar	Scientist (Forestry)	1(61)	3(41,67,72)	4	67
99.	Dr. D. Dinesh	Scientist (Soils)	1(9)	5(23,41,60,61,67)	6	23, 67
100.	Dr. V. Kakade	Scientist (Hort.)	1(41)	3(9,55,61)	4	-
101.	Er. Gaurav Singh	Scientist (Engg.)	-	4(7,23,47,61)	4	7,23,47
102.	Mr. O.P. Meena	Scientist (Soils)	-	3(47,55,62)	3	47,62

(Figures in parenthesis are serial numbers of on-going projects listed in these proceedings).

LIST OF PARTICIPANTS

S.No.	Name	Designation	Participation in IRC as
1.	Dr. P.K. Mishra	Director	Chairman
ICAR-IISWC, DEHRADUN			
2.	Dr. N.K. Sharma	Head (SS&A Division)	Member & PI: P-2.1
3.	Dr.Lakhan Singh	Head (HRD&SS Division)	Member
4.	Dr. P.R. Ojasvi	Head (H&E Division)	Member & PI: P-1
5.	Dr. Harsh Mehta	I/c Head (Plant Science Division)	Member & PI: P.2.2
6.	Dr. G.C. Sharma	OIC, PME Cell	Member Secretary, IRC
7.	Dr. Charan Singh	Principal Scientist(Forestry)	
8.	Dr. Bankey Bihari	Principal Scientist (Ag. Extn.)	PI: P-6
9.	Dr. Pradeep Dogra	Principal Scientist (Ag. Eco.)	PI: P-5
10.	Dr. B.N. Ghosh	Principal Scientist (Soils)	
11.	Dr. Ambrish Kumar	Principal Scientist (Engg.)	PI: P-4
12.	Dr. D.V. Singh	Principal Scientist (Soils)	
13.	Dr. D.R. Sena	Principal Scientist (Engg.)	PI: P-3
14.	Dr. J.M.S. Tomar	Principal Scientist (Forestry)	
15.	Dr. D. Mandal	ICAR-National Fellow	
16.	Dr. B.L. Dhyani	Senior Scientist(Ag. Eco.)	
17.	Er. S.S. Shrimali	Senior Scientist(CAA)	
18.	Dr. Rajesh Kaushal	Senior Scientist (Forestry)	Member Secretary, RAC
19.	Dr. M. Muruganandam	Senior Scientist (Fisheries)	
20.	Dr. A.C. Rathore	Senior Scientist (Hort.)	
21.	Dr. U.K. Maurya	Senior Scientist (Soils)	
22.	Dr.(Ms.)Vibha Singhal	Senior Scientist(Agro Forestry)	
23.	Dr. J. Jayaprakash	Senior Scientist (Forestry)	
24.	Er. S. Patra	Scientist (SS) (Engg.)	
25.	Dr. N.M. Alam	Scientist (SS) (Ag. Stat.)	
26.	Ms. Chayna Jana	Scientist (Ag. Stat.)	
27.	Er. Uday Mandal	Scientist (Engg.)	
28.	Mr. D.M. Kadam	Scientist (Hort.)	
29.	Mr. Rajesh Bishnoi	Scientist (Ag. Extn.)	
30.	Dr. (Ms.) Trisha Roy	Scientist (Soils)	
31.	Er. Deepak Singh	Scientist (Engg.)	
32.	Er. Gaurav Singh	Scientist (Engg.)	
33.	Mr. O.P. Meena	Scientist (Soils)	
34.	Dr.(Mrs.) Sangeeta N. Sharma	Chief Technical Officer	Rapporteur
35.	Mr. Nirmal Kumar	Chief Technical Officer	Rapporteur
36.	Mr. S.K. Sinha	Sr. Technical Officer	Rapporteur
RESEARCH CENTRE, AGRA			
37.	Dr. S.K. Dubey	Head of the Centre	Member
38.	Dr. A.K. Parandiyal	Principal Scientist (Forestry)	
39.	Dr. A.K. Singh	Principal Scientist (Engg.)	
40.	Dr. K.K. Sharma	Senior Scientist (Engg.)	
41.	Dr. R.K. Dubey	Senior Scientist (Agro.)	
42.	Dr. R.B. Meena	Scientist (Soils)	
43.	Dr. Dileep Kumar	Scientist (Agro.)	
44.	Dr. D.C. Meena	Scientist (Ag.Eco.)	
RESEARCH CENTRE, BELLARY			
45.	Dr. A. Raizada	Head of the Centre	Member
46.	Dr. S.L. Patil	Principal Scientist (Agro.)	
47.	Dr. H. Biswas	Senior Scientist (Soils)	
48.	Er. B.S. Naik	Scientist (SS) (Engg.)	

49.	Mr. M.N. Ramesha	Scientist (Forestry)	
50.	Ms. M. Prabhavathi	Scientist (Soils)	
51.	Mr. Suresh Kumar	Scientist (Ag. Eco.)	
52.	Mr. A.S. Morade	Scientist (Hort.)	
RESEARCH CENTRE, CHANDIGARH			
53.	Dr. (Ms.) Pawan Sharma	I/c Head of the Centre	Member
54.	Dr. (Ms.) Swarn Lata Arya	Principal Scientist (Ag. Eco.)	
55.	Dr. V.K. Bhatt	Principal Scientist (Engg.)	
56.	Dr. Ram Prasad	Principal Scientist (Hort.)	
57.	Dr. Pankaj Panwar	Principal Scientist (Forestry)	
58.	Dr. Sharmistha Pal	Scientist (SS) (Soil)	
RESEARCH CENTRE, DATIA			
59.	Dr. R.S. Yadav	Head of the Centre	Member
60.	Dr. S.P. Tiwari	Principal Scientist (Soils)	
61.	Dr. Dev Narayan	Principal Scientist (Agro.)	
62.	Dr. Om Prakash	Principal Scientist (Ag. Extn.)	
63.	Dr. Rajeev Ranjan	Scientist (Soils)	
64.	Mr. Manish Kumar	Scientist(Agroforestry)	
RESEARCH CENTRE, KORAPUT			
65.	Dr. M. Madhu	Head of the Centre	Member
66.	Dr. D.C. Sahoo	Senior Scientist (Engg.)	
67.	Dr. H. Gowda	Scientist (Forestry)	
68.	Dr. P.P. Adhikary	Scientist (Soils)	
69.	Dr.(Ms.) Ch. J.P. Dash	Scientist (Engg.)	
70.	Mr. M.K. Meena	Scientist (Ag.Eco.)	
RESEARCH CENTRE, KOTA			
71.	Dr. R.K. Singh	Head of the Centre	Member
72.	Dr. Ashok Kumar	Principal Scientist (Ag. Eco.)	
73.	Dr. Shakir Ali	Principal Scientist (Engg.)	
74.	Dr. B.L. Mina	Senior Scientist (Soils)	
75.	Mr. H.R. Meena	Scientist (SS) (Hort.)	
76.	Dr. G.L. Meena	Scientist (Soils)	
77.	Dr. Kuldeep Kumar	Scientist (Agronomy)	
78.	Dr.(Ms.)S.Kala	Scientist(Forestry)	
79.	Dr. I. Rashmi	Scientist (Soils)	
RESEARCH CENTRE, UDHAGAMANDALAM			
80.	Dr. O.P.S. Khola	Head of the Centre	Member
81.	Dr. K. Kannan	Principal Scientist (Agro.)	
82.	Dr. S. Manivannan	Principal Scientist (Engg.)	
83.	Dr. P. Sundarambal	Principal Scientist (Ag. Extn.)	
84.	Dr. K. Rajan	Principal Scientist (Soils)	
85.	Dr. P. Raja	Senior Scientist (Soils)	
86.	Dr. R. Ragupathy	Scientist (SS) (Forestry)	
87.	Dr.(Ms.) V.K. Thilagam	Scientist (Soils)	
RESEARCH CENTRE, VASAD			
88.	Dr. P.R. Bhatnagar	Head of the Centre	Member
89.	Dr. V.C. Pande	Senior Scientist (Ag. Eco.)	
90.	Dr. B.K. Rao	Senior Scientist (Engg.)	
91.	Dr. Raj Kumar	Scientist (Forestry)	
92.	Dr. D. Dinesh	Scientist (Soils)	
93.	Dr. V. Kakade	Scientist (Hort.)	

