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 to the IRC Meeting of 2015. He welcomed the august gathering of Scientists from Headquarter and from all Regional Centres and laid emphasis as per directions of Hon'ble Director General, ICAR that all Scientists should actively participate in Institute IRC. If we decide our priorities of research during deliberation of six days 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 research. We should focus upon that what society needs from us. One should take up research by keeping national prospective in mind as to support a transformation of food system to make them more productive, environmentally sustainable and resilient while preserving and enhancing the livelihood benefits.

He apprised the House that keeping in view the importance of soil, the United Nations has declared year 2015 as International year of soil with the aim to enhance awareness and understanding the importance of soil for food security and essential ecosystem farming. The soil helps to combat and adapt to climate change by playing key role in the carbon cycle. Soil stores and filter water improving our resilience to floods and droughts. Although there has been a threat to soil by continuous depletion of soil due to various land degradation processes like soil erosion deforestation and improper utilization. Besides erosion by water becomes the most harmful factor in deterioration of productive land affecting total cultivable area. Soil without water has no meaning.

There is a need to direct itself more towards accountability and monitoring of the ongoing research activities. He emphasized need of research in agriculture with reference to soil conservation and water management so as to enhance productivity. Time management in research has its own significance. Therefore, month wise time activity chart and the work done may be maintained by each Scientist which has to be monitored by the Heads. Project based budgeting is another criteria to be prepared for monitoring flow of expenditure in research activities which has to be submitted along with **RPPs (I, II & III)**.

Concluding his address, the Chairman expressed his happiness on the good work that the Institute is doing. But, there are some threats also. Let us feel bit comfort as done good job previous year. It has been appreciated everywhere even by Institute RAC. He further informed the House that Dr M. Madhu and Dr R.S. Kurothe have got good awards. Dr. R.K. Singh from Kota has got good project. Recently, Bellary centre has been assigned NABAARD consultancy project. Three NICRA projects submitted by Dr. N.K. Sharma, Dr. P.R. Ojasvi and Dr. D.R. Sena have duly been approved. Dr. D. Mandal has been National Fellow. Dr.(Ms) Sharmistha Pal has received award from Australia. He expressed thanks to Dr. B.L. Dhyani for keenly monitoring Institute RFD activities. He desired that each centre and the Headquarter should celebrate Institute/ Research Centre's day on the date when the Institute/ centre came into existence. They should also celebrate Farmers' days as per the direction of the ICAR. Discussions in the present IRC should be in this direction.

AGENDA & PROGRAMME OF IRC MEETING – 2015

DATE (Day)	TIME	AGENDA & PROGRAMME
11.05.2015 (Monday)	2:30 pm	Welcome and opening remarks of the Chairman
	3:00 pm	Recommendations of **RAC-2015** & Status of new proposals agreed - Member Secretary, RAC
	3:15 pm	**Action Taken Report** on the actions assigned in the IRC Meeting, 2014 - Member Secretary, IRC
	4:00 pm	**Tea Break**
	4:15 pm	Presentation of **Performance Indicator** of Research Centres & Divisions - Mr. Suresh Kumar, Scientist (Ag. Econ.), Research Centre, Bellary
	4:30 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.5 (Erosion productivity relationships) (P-1): Dr. D. Mandal - Sl.No. 38 (Evaluation of hydrological) (P-3) : Dr. J.M.S. Tomar - Sl.No. 51 (Field evaluation of trenches) (P-4) : Dr. R.S. Kurothe - Sl.No. 53 (Multiple criteria decision) (P-5) : Dr. P. Dogra - Sl. No.54 (Evaluation of institutional) (P-5) : Dr. P. Dogra - Sl. No.56 (Post-adoption behaviour) (P-6) : Dr. G.L. Bagdi
12.05.15 (Tuesday)	10:00 am	Presentation & Discussion on **ToT** - Dr. Bankey Bihari, Principal Scientist (Agri. Extention)
	10.30 am	Presentation of **Observational Trials listed on page no. 34 of IRC proceedings 2014** 15 minutes will be given to each project (10 minutes for presentation and 05 minutes for discussion & comments) - Sl.No. 1(Development---------measures) - Dr. U.K. Maurya - Sl.No. 2 (Evolution--------management) - Dr. M. Muruganandam - Sl.No. 3 (Evaluation----------lands) - Er. S. Patra - Sl.No. 4 (Application-------Uttarakhand) - Er. U. Mandal
	11:30 am	**Tea Break**
	11.45 am	Presentation of **Observational Trials listed on page no. 34 of IRC proceedings 2014** - Sl.No.5 (Design----------Himalayas) - Dr. Ambrish Kumar - Sl.No. 6 (Phyto----------system) - Dr. M.N. Ramesha - Sl.No. 7 (Impact----------Nilgiris) - Dr. V.K. Thilagam - Sl.No. 8 (Determining----------erosion) - Dr. Raj Kumar - Sl.No. 9 (High value----------fields) - Dr. B.K. Rao
	1:00 pm	**Lunch Break**
	2:00 pm	Presentation of **New Project Proposals agreed by RAC 2015** by the **Project Leaders** 30 minutes will be given to each project (20 minutes for presentation and 10 minutes for discussion & comments) - Sl.No.1 (Evaluation -----amendments) - Dr. J. Jayaprakash - Sl.No.2 (Water ----------Kali rivers) - Mr. A.K. Gupta - Sl.No.3 (Effect----------land) - Mr. A.S. Morade
	3:30 pm	**Tea Break**

	3.45 pm	Presentation of **New Project Proposals agreed by RAC-2015** - Sl.No.4 (Growth----------planting) - Mr. A.S. Morade - Sl.No.5 (Determining----profitability) - Dr. Lekh Chand - Sl.No.6 (Structural ------productivity) - Dr. U.K. Maurya - Sl.No.7 (Development----------India) - Dr. N.M. Alam - Sl.No.8 (Evaluation----------systems) - Dr. Ramanjeet Singh
13.05.15 (Wednesday)	10:00 am	Presentation of **New Project Proposals agreed by RAC-2015** - Sl.No.9 (Development----------India) - Dr. N.K. Sharma - Sl.No.10 (Assessment --Uttarakhand) - Dr. P.R. Ojasvi - Sl.No.11(Developing ---management) - Ms. Chayna Jana
	11:30 am	**Tea Break**
	11:45 am	Presentation of **New Project Proposals agreed by RAC-2015** - Sl.No.12 (Status----------grass) - Dr. Rama Pal - Sl.No.13 Evaluation----------region) - Er. S.K. Srivastava - Sl.No.14(Evaluation---------practices) - Dr. M.N. Ramesha - Sl.No.15(Impact----------technique) - Dr. Rajeev Ranjan
	1:45 pm	**Lunch Break**
	2:45 pm	Presentation of **New Project Proposals agreed by RAC-2015** - Sl.No.16 (Evaluation----------region) - Mr. Manish Kumar - Sl.No.17(Evaluation----------Odisha) - Dr. M. Madhu - Sl.No.18(Restoration----------ghats) - Dr. D.C. Sahoo
	4:15 pm	**Tea Break**
	4:30 pm	Presentation of **New Project Proposals agreed by RAC-2015** - Sl.No.19 (Hydrologic -------- Odisha) - Dr. J.P. Dash - Sl.No.20 (Socio ---------- Odisha) - Mr. Mukesh Kumar - Sl.No.21(Developing ---- Rajasthan) - Dr. A.K. Parandiyal - Sl.No.22 (ITKs ----------Tamilnadu) - Dr. P. Sundarambal - Sl.No.23(Strategies -------- Gujarat) - Dr. P.R. Bhatnagar - Sl.No.24 (Impact ---------- state) - Dr. G.L. Bagdi
	7:00 pm	Presentation & Discussion on **ITMU activities** - Dr. Harsh Mehta, OIC, ITMU
14.05.2015 (Thursday)	10:00 am	Presentation & Discussion on **TSP by the leaders at Divisions & Centres** - Dr. Charan Singh, Principal Scientist & Coordinator of TSP - Plant Science Division, Dehradun - Soil Science & Agronomy Division, Dehradun - Research Centre, Bellary - Research Centre, Koraput - Research Centre, Udhagamandalam
	10:30 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. 3 (P-1) - Dr. D. Mandal - Sl. No. 4 (P-1) - Dr. D. R. Sena - Sl. No. 46 (P-3) - Dr. B.K. Rao - Sl. No. 50 (P-4) - Dr. S. Manivannan
	11:45 am	**Tea Break**

	12:00 pm	Presentation of **Projects due for completion (to be concluded)** in 2014-15 by the **Project Leaders** 20 minutes will be given to each project (15 minutes for presentation and 05 minutes for discussion & comments) - Sl.No. 18 (P-2.1) - Dr. S.P. Tiwari - Sl.No. 19 (P-2.1) - Dr. R.K. Singh - Sl.No. 21 (P-2.2) - Dr. J. Jayaprakash - Sl.No. 32 (P-2.2) - Dr. D.C. Sahoo - Sl.No. 45 (P-3) - Dr. S. Manivannan - Sl.No. 49 (P-4) - Dr. Shakir Ali
	2.00 pm	**Lunch Break**
	3.00 pm	Presentation of projects **approved in IRC Meeting, 2014** by the **concerned Heads** 10 minutes will be given to each project (05 minutes for presentation and 05 minutes for discussion & comments) - Sl.No. 7 (P-1) & 48 (P-4) - I/c Head, H&E Division - Sl.No. 42 (P-3) - Head, Research Centre, Bellary - Sl.No. 1 (P-1) - Head, Research Centre, Koraput - Sl.No. 20 (P-2.1) - Head, Research Centre, Udhagamandalam
	4:00 pm	**Tea Break**
	4.15 pm	Presentation of **Externally Funded New Projects** by the **Project Leaders** 25 minutes will be given to each project (20 minutes for presentation and 05 minutes for discussion & comments) - DST funded NMSHE project - Dr. N.K. Sharma - Water Platform project - Dr. P.R. Ojasvi - NICRA project - Dr. D.R. Sena - National Fellow project - Dr. D. Mandal - Sl.No. 10 [to be concluded (P-2.1)] - Dr. N.K. Sharma
15.05.2015 (Friday)	10:00 am	Presentation & Discussion on **ERP & Communication Initiative** - CAO, SFAO, Er. S.S. Shrimali & Ms. Chayna Jana
	10:30 am	Presentation & Discussion on **Human Resource Development** - Dr. Lakhan Singh, Head, HRD & SS Division
	11:00 am	Presentation & Discussion on **Data Digitization & PME Activities** - Dr. G.C. Sharma, Principal Scientist & OIC, PME Cell
	11:15 am	**Tea Break**
	11:30 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 & comments) - Sl.No. 2, 6, 8 (P-1) - Sl.No. 9, 11, 12 (P2.1)
	1:00 pm	**Lunch Break**
	2:00 pm	Presentation of **Ongoing (to be continued) projects** - Sl.No. 13, 14, 15, 16, 17 (P-2.1)
	3:15 pm	**Tea Break**
	3:30 pm	Presentation of **Ongoing (to be continued) projects** - Sl.No. 22, 23, 24, 25, 26, 27 (P-2.2) - Sl.No. 28, 29, 30, 31, 33 (P-2.2)
16.05.2015 (Saturday)	10:00 am	Presentation of **Ongoing (to be continued) projects** - Sl.No. 34, 35, 36 (P-2.2) - Sl.No. 37, 39, 40 (P-3)
	11:30 am	**Tea Break**

	11.45 pm	Presentation of **Ongoing (to be continued) projects** - Sl.No. 41, 43, 44, 47 (P-3) - Sl.No. 52 (P-4) - Sl.No. 55 (P-6)
	1:15 pm	**Lunch Break**
	2:15 pm	Presentation on **Foreign Visits** by the following Scientists 10 minutes will be given to each presentation - Dr. Sharmistha Pal, Scientist - Dr. D. Mandal, Sr. Scientist - Er. S. Patra, Scientist - Dr. J.M.S. Tomar, Sr. Scientist
	3.00 pm	**Any other presentation with the permission of Chairman**
	3:45pm	**Tea Break**
	4.00 pm	**Plenary Session, Concluding Remarks and Recommendations by the Chairman**
	4:30 pm	**Vote of Thanks** - Member Secretary, IRC

(Note: Sl.No. of the projects is as per IRC meeting proceedings 2014)

IMPORTANT GUIDELINES FOR PRESENTATION:

1. Projects concluded in 2014-15 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 2014-15 should be presented in last slide by the project leader and it's hard copy should be submitted to PME Cell.

2. While making the presentation of the progress, the number of slides may be restricted to 10 including figures / photographs covering title, leader and associates, objectives, achievements during the year for all ongoing 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 may 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 require extension period, the same may be presented to the House with proper justification in slide form.

8. **The presentation of the projects must be well rehearsed at the Division/Centre level, 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. 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.

   All the presentations were completed as per agenda of IRC.

RECOMMENDATIONS OF RAC – 2015

1. The institute should formulate package of practices for rehabilitation of ravine lands compiling work done on ravine lands.

2. 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.

3. Present status of the Shifting Cultivation in Odisha needs to be documented with suggested action plan.

4. 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.

5. 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.

ACTION TAKEN ON "SALIENT RECOMMENDATIONS OF IRC MEETING – 2014"

S.No.	Action Assigned	Action Taken Report
1.	A bulletin from the concluded project on runoff and erosion prediction models may be published by Dr. P.R. Ojasvi, Principal Scientist (Engg.) by October 31, 2014 positively. **(Action: Dr. P.R. Ojasvi)**	Printing is under progress.
2.	Detailed analysis of findings of concluded NPCC project on climate change may be submitted by Dr. D.R. Sena, Principal Scientist (Engg.) by July 15, 2014 positively. **(Action: Dr. D.R. Sena)**	Consolidated achievement report submitted on 07.05.2015.
3.	Additional information on data format of modelling developed for collection of data in different projects may be sent by all Heads of Research Centres to Dr. D.R. Sena, Principal Scientist (Engg.) for compilation and scrutiny, and information may be sent to all Research Centres by Dr. D.R. Sena for uniformity of data collected. **(Action: Dr. D.R. Sena and all Heads of Research Centres)**	Data format being already followed is sufficient for modelling. No additional data is required.
4.	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 for transmitting the methodology of Curve Number to other centres. 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 the next IRC meeting and RPP IV may also be prepared on this project. **(Action: Dr. D.R. Sena)**	Action not initiated.
5.	Report on data computed and analyzed on Soil Threat Index may be sent to all Heads of Research Centres and Divisions by Dr. (Ms.) Sharmistha Pal, Scientist (Soils) for use by them. A paper may also be published on the above report. **(Action: Dr. (Ms.) Sharmistha Pal)**	Report submitted to all Centres. Data set was observed to be insufficient for publishing a paper.
6.	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 December 31, 2014. **(Action: Dr. Gopal Kumar)**	Bulletin under preparation, and likely to be published by May, 2015.
7.	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.). **(Action: Dr. Gopal Kumar and Er. S. Patra)**	Sampler not received at Headquarters.
8.	A technology brochure on concluded project on recharge filter may be published by Dr. Gopal Kumar, Scientist (Soils) during 2014-15. It's process may be patented for which the process details may be sent to Dr. Harsh Mehta, OIC, ITMU. **(Action: Dr. Gopal Kumar and Dr. Harsh Mehta)**	Brochure will be submitted for approval by May, 2015. PI is of the view that the process is not ready for patenting presently.
9.	Rainfall intensity chart may be prepared by Dr. R. Ragupathy and Dr. S. Manivannan for Udagamandalam Centre and Dr. B.K. Rao for Vasad Centre by July 31, 2014 and sent to Dr. N.M. Alam, Scientist (Ag. Stat.) at Headquarters, Dehradun for analysis. **(Action: Dr. R. Ragupathy, Dr. S. Manivannan, Dr. B.K. Rao and Dr. N.M. Alam)**	Rainfall intensity charts of the entire available period (2007-2014) received from Udhagamandalam and Vasad.

S.No.	Action Assigned	Action Taken Report
10.	A bulletin/brochure may be published on results obtained from concluded project entitled "Resource conservation by alley cropping in shifting cultivated degraded lands of Eastern Ghats". Economics may be worked out and RPP IV may also be prepared on this project. **(Action: Dr. P.P. Adhikary)**	Only draft report received.
11.	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 the next IRC meeting. Dr. S.P. Tiwari, Head, Research Centre, Datia and Dr. N.M. Alam, Scientist (Ag. Stat.) may help for bringing out this bulletin. **(Action: Dr. P.P. Adhikary, Dr. S.P. Tiwari and Dr. N.M. Alam)**	Assigned work completed by Datia Centre and Headquarters. The final published bulletin is awaited.
12.	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 December 31, 2014. 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)**	Bulletin publishing is under progress. Implementation of the technology under ToT and RPP-IV will be taken up during 2015-16.
13.	Digitization and creation of data base of CSWCRTI, Dehradun has to be initiated at the Headquarters and Research Centres as per the directives of ICAR. **(Action: Dr. G.C. Sharma, Pr. Scientist (Ag. Stat.))**	Action has been initiated and proformae sent to DDG(NRM) and IASRI.
14.	Half page write-up and recommendations emerging out from projects concluded in 2012-13 and 2013-14 should invariably be submitted by the leader of projects through their respective Heads by July 31, 2014 positively. **(Action: Leader of projects concluded in 2012-13 and 2013-14 and All Heads of Research Centres/Divisions)**	Write-up and recommendations have been received from all concerned.
15.	A hard copy of the published papers during the year 2014 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 2014-15 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. Published papers of 2012 and 2013 should be submitted by the remaining Research Centres and Divisions by July 31, 2014 positively. **(Action: All Heads of Research Centres/Divisions)**	Hard copies of papers received from all concerned.
16.	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, 2015 positively. **(Action: All Heads of Research Centres/Divisions)**	Complete Annual Report received from all Research Centres / Divisions.
17.	One representative photograph may be sent by the Head of each Research Centre to the Headquarters, Dehradun highlighting the activity of each centre by July, 2014 for sending to ICAR, New Delhi. **(Action: All Heads of Research Centres)**	All Research Centres have submitted.

SALIENT RECOMMENDATIONS OF IRC MEETING – 2015

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)

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)

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)

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)

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)

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)

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)

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)

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)

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)

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)

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)

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)

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)

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)

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)

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)

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. O.P. Chaturvedi)

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 ON-GOING 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 **(New Project)**
2.	NRMAIISWCCIL 201500200088	Assessment of soil erosion fluxes of Uttarakhand.	P.R. Ojasvi P.K. Mishra Uday Mandal	Hydrology & Engineering, Dehradun	2015-16	2017-18	Headquarters	To be continued **(New Project)**
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	Datia	2015-16	2018-19	Bundelkhand region	To be continued **(New Project)**
Comments: Uniform approach to evaluate R-factor may be followed for Bundelkhand region which are being done by Dr. P.R. Ojasvi and Er. Uday Mandal at Dehradun. (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 continued
Comments: Progress is very good								
5.	NRMACSWCRTI CIL201300400078	Developing methodological framework for delineating and characterization of Chambal and Yamuna ravines.	G.L. Meena R.K. Singh	Kota	2013-14	2015-16	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 very good. Not agreed upon to make collaboration with NBSSLUP and NRSC. A written justification may be submitted by the Head of Datia Centre for not transferring available software to AKMU, Dehradun. (Action: Dr. G.L. Meena/Head of Datia Centre)								

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 S. Patra N.M. Alam Suresh Kumar (Bellary) Chayna Jana Ramanjeet Singh Uday Mandal A.K. Gupta	Soil Science & Agronomy, Dehradun	2015-16	2020-21	Lower-middle Himalayas	To be continued **(NMSHE Project) (New project)**
			Pankaj Panwar V.K. Bhatt S.L. Arya Sharmistha Pal Ram Prasad A.K. Tiwari Pawan Sharma	Chandigarh				

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
7.	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	2015-16	Headquarters	To be concluded **(Collaborative project on Indo-Austria Scientific-Technological Co-operation)**
Comments: Progress is very good.								
8.	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 continued **(NICRA Project)** **(New Project)**
			Monalisha Pramanik Rajeev Ranjan S.P. Tiwari	Datia				
			P.P. Adhikary Ch.J.P. Dash D.C. Sahoo M. Madhu	Koraput				
			Gopal Kumar B.K. Rao P.R. Bhatnagar V.C. Pande	Vasad				
9.	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 **(New Project)**

1.3 SOIL CARBON DYNAMICS AND EROSION PRODUCTIVITY STUDIES

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
10.	NRMACSWCRTICIL200800100014	Erosion productivity relationships for evaluating vulnerability and resiliency of soils under different agro-climatic regions of India.	D. Mandal S. Patra 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			
			Dev Narayan S.P. Tiwari Monalisha Pramanik Prabhat Kumar	Datia	2009-10			
			P.P. Adhikary M. Madhu	Koraput	2009-10			
			R.K. Singh Kuldeep Kumar B.L. Mina	Kota	2009-10			
			K. Kannan D. Dinesh	Udhagamandalam	2009-10			
			Gopal Kumar R.S. Kurothe	Vasad	2009-10			
Comments: Progress is very good. Dr. R.K. Dubey will be second associate at Agra. Dr. Sharmishta Pal will replace Dr. R.P. Yadav as a leader at Chandigarh and name of Dr. Lekh Chand is deleted. (Action: Dr. D. Mandal and leaders at all Research Centres)								
11.	NRMAIISWCCOL201500700093	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) (New Project)**

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
12.	NRMACSWCRTI CIL201100400050	Assessment of soil organic carbon in transit under erosion processes: A source or sink for atmospheric CO_2.	Lekh Chand D.R. Sena N.M. Alam	Soil Science & Agronomy, Dehradun	2011-12	2018-19	Research Farm	To be continued
Comments: Progress is very good. Objectives may be modified as discussed in the House. Project is extended for three years till 2018-19. (Action: Dr. Lekh Chand)								
13.	NRMACSWCRTI CIL201400200082	Development and validation of a spatially explicit simulation framework to quantify runoff-erosion-carbon flux at watershed scale.	S. Patra D. Mandal P.R. Ojasvi Rajesh Kaushal A.C. Rathore Chayna Jana N.M. Alam Lekh Chand	Hydrology & Engineering, Dehradun	2014-15	2019-20	Research Farm	To be continued
Comments: Progress is very good.								
14.	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	2015-16	The Nilgiris district	To be concluded
Comments: Progress is very good.								

P-2 CONSERVATION MEASURES FOR SUSTAINABLE PRODUCTION SYSTEM

2.1 RESOURCE CONSERVATION MEASURES FOR ARABLE LANDS

15.	NRMACSWCRTI CIL200500100005	Evaluating productivity potential of bhimal (*Grewia optiva*) along with field crops.	Harsh Mehta D. Mandal S.S. Shrimali Lekh Chand	Plant Science, Dehradun	2005-06	2015-16	Almas, Ranigaon, Sabhawala & Selakui villages	To be concluded
Comments: Progress is very good. Adaptability of growing bhimal (*Grewia optiva*) with msl altitude may be correlated. The number of trees per ha should also be shown. GIS map should include elevation parameter also. (Action: Dr. Harsh Mehta)								
16.	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Equivalent yield may be calculated to report combined yield of the system. (Action: Dr. A.C. Rathore)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
17.	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Economics of treatments may be re-checked and reported before next IRC with comparison. (Action: Dr. B.N. Ghosh)								
18.	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Pitcher irrigation may be provided for survival of tamarind. Er. B.S. Naik will replace Er. S.K. Srivastava as first associate. Name of Mr. A.S. Morade is included as third associate. (Action: Dr. A. Raizada)								
19.	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
Comment: Progress is very good.								
20.	NRMACSWCRTI CIL200900200031	Conservation tillage for resource management and higher production from Shiwaliks.	Sharmistha Pal Pawan Sharma S.L. Arya	Chandigarh	2009-10	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Year wise equivalent yield of the system should be worked out. Dr.(Ms.) Sharmistha Pal will replace Dr. R.P. Yadav as leader of the Project and name of Dr. Lekh Chand is deleted. (Action: Dr.(Ms.) Sharmistha Pal)								
21.	NRMACSWCRTI CIL201100800054	Adaptation potential and productivity of organic vis-à-vis conventional farming system under rainfed conditions of Shiwaliks region.	Pawan Sharma Lekh Chand V.K.Bhatt	Chandigarh	2011-12	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Dr. V.K. Bhatt will replace Dr. R.P. Yadav as second associate. (Action: Dr. Pawan Sharma)								
22.	NRMACSWCRTI CIL201000400040	*In situ* moisture conservation practices under aonla based agro-forestry system for sustainable production in red soils of Bundelkhand.	Dev Narayan Prabhat Kumar Manish Kumar	Datia	2010-11	2018-19	Research Farm	To be continued
Comments: Progress is very good. Name of Mr. Manish Kumar is included as second associate. (Action: Dr. Dev Narayan)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
23.	NRMAIISWCCIL 201500800094	Restoration of shifting cultivated lands for resource conservation and sustainable production in Eastern Ghats.	D.C. Sahoo P.P. Adhikary M. Madhu M.K. Meena	Koraput	2015-16	2022-23	Shifting cultivated area in Koraput district	To be continued **(New Project)**
Comments: Base paper on shifting cultivation may be prepared. (Action: Dr. D.C. Sahoo)								
24.	NRMAIISWCCIL 201500900095	Development of conservation agriculture practices for rainfed production systems in different agro-ecological regions of India.	Kuldeep Kumar B.L. Mina Shakir Ali Ashok Kumar	Kota (Observational trials at Agra, Datia, Dehradun, Koraput & Udhagamandalam during 2015-16)	2015-16	2020-21	Research Farm	To be continued **(New Core Project)**
Comments: Kota Centre may start as project during 2015-16. Other Centres/Headquarters may take as an Observational Trial during 2015-16. (Action: Dr. Kuldeep Kumar)								
25.	NRMACSWCRTI CIL201400300083	Cover crops and reduced tillage for enhancing productivity and soil health in rainfed farming system in the hilly areas.	K. Kannan D. Dinesh V.K. Thilagam O.P.S. Khola	Udhagamandalam	2014-15	2018-19	Research Farm	To be continued
Comments: Progress is very good.								
26.	NRMAIISWCCIL 201501000096	High value forage grass strips for resource conservation and enhancing production in crop fields.	B.K.Rao Gopal Kumar V.C.Pande	Vasad	2015-16	2016-17	Research Farm	To be continued **(New Project)**
Comments: Word 'filters' has been replaced by 'strips' in the title of the project. (Action: Dr. B.K. Rao)								

2.2 RESOURCE CONSERVATION MEASURES FOR NON-ARABLE LANDS

27.	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	2015-16	Research Farm	To be concluded
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
28.	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 D. Mandal	Plant Science, Dehradun	2009-10	2018-19	Research Farm	To be continued
Comments: Progress is very good.								
29.	NRMACSWCRTI CIL201000500041	Effect of degradation on conservation and production attributes of Sal forests in Uttarakhand.	O.P. Chaturvedi J. Jayaprakash J.M.S. Tomar Charan Singh D.V. Singh	Plant Science, Dehradun	2010-11	2015-16	Rudrapur, Langha & Kalyanpur	To be concluded
Comments: Progress is very good.								
30.	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Root density, root weight per unit area and root distribution function may be worked out. (Action: Dr. J.M.S. Tomar)								
31.	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.								
32.	NRMACSWCRTI CIL201101300059	Canopy management in *Morus alba* 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 continued
Comments: Progress is very good.								
33.	NRMACSWCRTI CIL201200200071	Development and characteri-zation 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.								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
34.	NRMAIISWCCIL 201501100097	Evaluation of *Bael* 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 **(New Project)**
Comments: Interspaced cultivation with spacing between trees suitable for their growth may be taken. A leguminous crop cowpea may be taken for intercropping to make degraded land fertile. Carbon sequestration analysis has to be done for estimation of carbon stock. (Action: Dr. J. Jayaprakash)								
35.	NRMAIISWCCIL 201501200098	Phyto-rehabilitation of saline - sodic vertisols through *Prosopis juliflora* based silvipastoral system.	M.N. Ramesha A. Raizada H. Biswas	Bellary	2015-16	2019-20	Research Farm	To be continued **(New Project)**
Comments: The trees may be maintained. (Action: Dr. M.N. Ramesha)								
36.	NRMACSWCRTI CIL200800700020	Peach based agri-horticulture land use system for degraded Shiwaliks.	Ram Prasad Sharmistha Pal S.L. Arya	Chandigarh	2008-09	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Canopy management has to be done for further enhancing fruit quality. Dr.(Ms.) Sharmistha Pal will replace Dr. R.P. Yadav as first associate. (Action: Dr. Ram Prasad)								
37.	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 continued
Comments: Progress is very good.								
38.	NRMACSWCRTI CIL201000700043	Evaluation of moisture conservation techniques for sustainable production of Tree Borne Oil Seeds (TBOS) in Bundelkhand.	Prabhat Kumar Manish Kumar Monalisha Pramanik	Datia	2010-11	2017-18	Research Farm	To be continued
Comments: Progress is very good. Names of Mr. Manish Kumar and Ms. Monalisha Pramanik are included as first and second associates, respectively. (Action: Mr. Prabhat Kumar)								
39.	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 **(New Project)**
Comments: Availability of water and protection from wild animals should be ensured. (Action: Mr. Manish Kumar)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
40.	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	Koraput	2015-16	2020-21	Watershed in Semiliguda block, Koraput	To be continued **(New Project)**
41.	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Name of Dr.(Ms.) S. Kala is included as fourth associate. (Action: Dr. H.R. Meena)								
42.	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Canopy management may be done for obtaining good oilseed yield. Name of Dr.(Ms.) S. Kala is included as leader of project and Dr. A.K. Parandiyal is shifted from leader to first associate due to transfer to Agra Centre. (Action: Dr.(Ms.) S. Kala)								
43.	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	2015-16	Research Farm & Sahabad Range Forest	To be concluded
Comments: Progress is very good. Name of Dr.(Ms.) S. Kala is included as leader of project and Dr. A.K. Parandiyal is shifted from leader to first associate due to transfer to Agra Centre. (Action: Dr.(Ms.) S. Kala)								
44.	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. Replacement of mortalities is required for all seedlings which show undergrowth or have died. Individual protection by putting temporary fencing for all is required. One meter radius around each pit should be left and cut the tea plants in that circle before planting the shade tree seedlings. (Action: Dr. R. Ragupathy)								

P-3 WATERSHED HYDROLOGY FOR CONSERVATION PLANNING

3.1 HYDROLOGICAL BEHAVIOUR OF LANDUSES AND MANAGEMENT PRACTICES

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
45.	NRMACSWCRTI CIL200400100002	Hydrological evaluation of recommended forest grasses in Himalayan foothills.	O.P. Chaturvedi Ambrish Kumar J. Jayaprakash Charan Singh B.N. Ghosh	Plant Science, Dehradun	2004-05	2018-19	Research Farm	To be continued
Comments: Progress is very good.								
46.	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 B.N. Ghosh M. Muruganandam	Plant Science, Dehradun	2011-12	2015-16	Pasauli, Vikas Nagar	To be concluded **(Core Project)**
			K.K. Sharma S.K. Dubey A.K. Parandiyal Dileep Kumar	Agra			Garhi Udairaj, Fatehabad	
			V.K. Bhatt Pankaj Panwar Ram Prasad Sharmistha Pal	Chandigarh			Janoli Village, Panchkula	
			Shakir Ali S. Kala B.L. Mina H.R. Meena	Kota			Dhoti Watershed	
			K. Kannan	Udhagamandalam			Iduhatti Watershed	
			B.K. Rao Gopal Kumar Raj Kumar	Vasad			Vejalpur-Rampura Watershed	
Comments: Progress is very good. Dr. (Ms.) S. Kala and Dr. A.K. Parandiyal will replace each other at Agra and Kota as associate. (Dr. J.M.S. Tomar and leaders at other Research Centres)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
47.	NRMAIISWCCIL 201501500101	Hydrologic systems analysis across multiple spatial scales and its implications on hydro-logic 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 (**New Project**)
Comments: Work done on length/effect of slope at other places may be reviewed. (Action: Dr.(Ms.) Ch. J.P. Dash)								
48.	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 (**New Project**)
Comments: The concrete proposal was re-submitted after deliberating among scientists of Udhgamandalam Centre which was approved. (Action: Dr.(Ms.) V.K. Thilagam)								
49.	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	2015-16	Research Farm	To be concluded
Comments: Progress is excellent. Dr. V.C. Pande will take over as leader of the project on superannuation of Dr. R.S. Kurothe. All analysis and write-ups related to hydrological aspects as PI should be completed by Dr. R.S. Kurothe before his superannuation to finalize RPPs by the Co-PIs and handed over to Dr. V.C. Pande for submission of RPPs etc. (Action: Dr. R.S. Kurothe / Dr.V.C. Pande)								

3.2 WATER HARVESTING, GROUNDWATER RECHARGE AND MANAGEMENT

50.	NRMAIISWCSIP 201501700103	Development and rejuvenation of natural springs through soil and water conservation measures	U.K. Maurya Ambrish Kumar	Soil Science & Agronomy, Dehradun (Collaborative project with Wadia Institute of Himalayan Geology (WIHG), Dehradun associating the scientists Dr. S.K. Rai and Dr. S.K. Bartarya from WIHG)	2015-16	2017-18	Mid Himalayas in Garhwal region	To be continued **(New Project)**
Comments**:** Location of spring may be mentioned. Geo-morphology/structural morphology may be studied. (Action: Dr. U.K. Maurya)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
51.	NRMAIISWCCIL 201501800104	Water quality assessment and its impact on adjacent soil and vegetation in riparian areas of Hindon and Kali rivers.	A.K. Gupta O.P. Chaturvedi Ambrish Kumar U.K. Maurya Rajesh Kaushal	Plant Science, Dehradun	2015-16	2019-20	Hindon & Kali rivers' basins in Saharanpur, Muzaffarnagar, Meerut etc. districts	To be continued **(New Project)**
Comments: Hydrology may also be studied by adding an objective. (Action: Mr. A.K. Gupta)								
52.	NRMAIISWCSOL 201501900105	Consortia Research Platform-Water Theme 1 Water Resources Augmentation/ Conservation.	P.R. Ojasvi P.K. Mishra S. Patra S.S. Shrimali Ramanjeet Singh	Hydrology & Engineering, Dehradun	2015-16	2016-17	Headquarters and all Research Centres	To be continued **(Water Platform Project)** **(New Project)**
			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 M. Madhu	Koraput				
			G.L. Meena R.K. Singh	Kota				
			S. Manivannan D. Dinesh O.P.S. Khola	Udhagamandalam				
			P.R. Bhatnagar B.K. Rao Gopal Kumar	Vasad				

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
53.	NRMACSWCRTI CIL201102000066	Conservation Bench Terrace (CBT) based integrated farming system in Himalayan foothills.	Ambrish Kumar N.K. Sharma B.L. Dhyani M. Muruganandam N.M. Alam	HRD&SS, Dehradun	2011-12	2015-16	Research Farm	To be concluded
Comments: Progress is very good.								
54.	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) (New project)**
55.	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good.								
56.	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 **(New Project)**
Comments: Technical programme may be modified as per the project of Mr. A.K. Gupta for further improvement. (Action: Dr. (Ms.) Rama Pal)								
57.	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 continued
Comments: Progress is very good. Cost of boring a well may be checked. (Action: Mr. Suresh Kumar)								
58.	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	2015-16	Research Farm	To be concluded
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
59.	NRMACSWCRTICIL201001000046	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Soil loss may be re-checked as soil slope is less than 1%. (Action: Dr. G.L. Meena)								
60.	NRMACSWCRTICIL201101900065	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	2015-16	Research Farm	To be concluded
Comments: Progress is very good. Nutrient dynamics may be worked out. Available phosphorus in the soil may be checked. Project is extended for one year till 2015-16. (Action: Dr. S. Manivannan)								
61.	NRMACSWCRTICOL201400500085	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 R.S. Kurothe P.R. Bhatnagar	Vasad	2014-15	2015-16	Panchmahal and Dahod districts	To be concluded **(DST Funded)**
Comments: Progress is very good. Name of Dr. P.R. Bhatnagar is included as second associate. (Action: Dr. B.K. Rao)								
62.	NRMAIISWCCIL201502200108	Strategies for rainwater harvesting and its multiple uses in rainfed agriculture in Central Gujarat	P.R. Bhatnagar B.K. Rao Gopal Kumar V.C. Pande	Vasad	2015-16	2017-18	Research Farm and farmers fields in adopted watersheds	To be continued **(New Project)**

3.3 DECISION SUPPORT SYSTEMS (DSS)

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
63.	NRMACSWCRTICIL201102300069	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	2015-16	Almas, Distt. Tehri Garhwal	To be concluded

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.

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
64.	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.								
65.	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 R.K. Singh	Kota	2015-16	2024-25	Mine spoil sites in Kota district	To be continued **(New Project)**
Comments: Treatments may be modified in the light of discussion held in IRC. (Action: Dr. B.L. Mina)								
66.	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	2015-16	Research Farm	To be concluded **(National Jute Board, Kolkata)**
Comments: Progress is very good.								
67.	NRMACSWCRTI CIL201102200068	Field evaluation of design of trenches under different agro-climatic regions.	R.S. Kurothe P.R. Bhatnagar V.C. Pande Gopal Kumar	Vasad	2011-12	2015-16	Research Farm	To be concluded **(Core Project)**
			A.K. Parandiyal A.K. Singh R.B. Meena R.K. Dubey	Agra			Research Farm	
			A.K. Tiwari Pankaj Panwar V.K. Bhatt Sharmistha Pal	Chandigarh			Research Farm	
			Monalisha Pramanik S.P. Tiwari Manish Kumar	Datia			Research Farm	

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
			D.C. Sahoo M. Madhu P.P. Adhikary	Koraput			Research Farm	
			Shakir Ali Ashok Kumar S. Kala	Kota			Dhoti Watershed	
			S. Manivanan K. Kannan K. Rajan	Udhagamandalam			Research Farm	
Comments: Progress is very good. Trenches should be made this year by Chandigarh, Datia, Kota and Udhgamandalam Centres. After retirement of Dr. R.S. Kurothe, Dr. P.R. Bhatnagar would be PI of the project who is now first associate of project at Vasad. Dr. S. Kala and Dr. A.K. Parandiyal will replace each other at Agra and Kota Centre. Names of Mr. R.K. Dubey and Mr. Manish Kumar are included as third and second associate at Agra and Datia, respectively. (Action: Dr. R.S. Kurothe/Dr. P.R. Bhatnagar and leaders at other Centres)								
68.	NRMACSWCRTI CIL200801000023	Enhancing productivity of ravine lands by plantation of *A. sapota* with intercropping systems.	Raj Kumar B.K. Rao Gopal Kumar V.C. Pande	Vasad	2008-09	2022-23	Research Farm	To be continued
Comments: Progress is very good.								

P-5 INTEGRATED WATERSHED MANAGEMENT FOR SOCIO-ECONOMIC GROWTH AND POLICY ADVOCACY

5.1 PARTICIPATORY WATERSHED MANAGEMENT AND INTEGRATED FARMING SYSTEM (IFS)

69.	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 M. Muruganandam S. Patra	PME Cell, Dehradun	2009-10	2016-17	Asthi Watershed	To be continued (**Core Project**)
			A.K. Singh D.C. Meena R.B. Meena Dileep Kumar	Agra			Jalalpur Watershed	
			S.L. Patil H. Biswas Suresh Kumar	Bellary			Ramasagara Watershed	
			S.L. Arya Sharmistha Pal 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
			Dev Narayan Prabhat Kumar Rajeev Ranjan	Datia			Jigna Watershed	
			M.K. Meena M. Madhu	Koraput			Lachhaputraghati Watershed	
			Ashok Kumar H.R. Meena	Kota			Dhoti Watershed	
			K. Kannan D. Dinesh	Udhagamandalam			Ayalur Watershed	
			V.C. Pande Gopal Kumar	Vasad			Vejalpura-Rampura Watershed	
Comments: Progress is very good. Name of Mr. M.K. Meena is included as leader at Koraput and Dr. M. Madhu will be the associate. (Action: Dr. Pradeep Dogra and leaders at Research Centres)								
70.	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 **(New Project)**
71.	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 **(New Project)**
Comments: Raipur and Jagdalpur Universities may be visited to review the literature so as to know gap of work to be done. TSP socio-economic status at various locations may be studied for which information in the proforma may be collected from the TSP leader at the Centres. (Action: Mr. M.K. Meena)								

P-6 HUMAN RESOURCE DEVELOPMENT AND TECHNOLOGY TRANSFER

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

72.	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 (**New Project)**

6.2 PARTICIPATORY TECHNOLOGY DISSEMINATION AND ADOPTION

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
73.	NRMACSWCRTISIP201300500079	Role of soil and water conservation technologies for climate resilient agriculture in Himalayan ecosystem - An action research.	D.V. Singh P.K. Mishra S. Patra Charan Singh Ramanjeet Singh D.M. Kadam	Soil Science & Agronomy Dehradun (Collaborative Project with HARC)	2013-14	2017-18	Uttarkashi district of Uttarakhand	To be continued
Comments: Progress is very good. Mr. D.M. Kadam will replace Mr. A.S. Morade as fifth associate. (Action: Dr. D.V. Singh)								
74.	NRMAIISWCCIL201502700113	Documentation and validation of ITKs in soil and water conservation practiced by tribal farmers of Tamil Nadu.	P. Sundarambal D. Dinesh R. Ragupathy K. Kannan	Udhagamandalam	2015-16	2018-19	Tribal districts of Tamil Nadu	To be continued **(New Project)**
Comments: Project may be focused only on resource conservation practices and livelihood activities may be dropped. Non-parametric test may be applied. Proverbs and saying should be excluded. (Action: Dr.(Ms.) P. Sundarambal)								
75.	NRMAIISWCSOP201502800114	Ensuing sustainable agricultural development and livelihood security in lower Shiwalik range of Uttarakhand.	Ramanjeet Singh	Soil Science & Agronomy, Dehradun Lead Centre: IARI, New Delhi	2015-16	2017-18	Haridwar district, Uttarakhand	To be continued **(DST Funded) (New Project)**

PROJECTS CONCLUDED DURING THE YEAR 2014-15

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 COL201100500051	The assessment of soil erosion through re-distribution analysis of ^{137}Cs fallout in humid subtropical region of India.	D. Mandal S.S. Shrimali N.M. Alam	Soil Science & Agronomy, Dehradun	2011-12	Research Farm
Comments: No progress made due to non-approval of funds by BARC. If approval given, the project may be taken up further with left over fund. (Action: Dr. D. Mandal)							
2	2.1	NRMACSWCRTI CIL201000300039	Integrated rain water management for enhancing rain water productivity in maize based cropping system.	N.K. Sharma Rajeev Ranjan Ambrish Kumar Harsh Mehta	Soil Science & Agronomy, Dehradun	2010-11	Research Farm
Comments: Progress is very good.							
3	2.1	NRMACSWCRTI CIL201100900055	Developing strip cropping system for sloppy uplands: A measure to cope up with monsoon vagaries and resource conservation in Bundelkhand region.	S.P. Tiwari Dev Narayan Om Prakash	Datia	2011-12	Jigna watershed
Comments: Progress is very good. RPP-IV may be submitted. (Action: Dr. S.P. Tiwari)							
4	2.1	NRMACSWCRTI CIL201101000056	Impact assessment of soil and water conservation measures and land use changes on sustainability of soil health under watershed development projects.	R.K. Singh B.L. Mina H.R. Meena Ashok Kumar	Kota	2011-12	Dhoti watershed
Comments: Progress is very good. Narrow database is available. Soil analysis is yet to be done. This project is concluded, however, a core project by associating other centres may be formulated and submitted next year to RAC for consideration. (Action: Dr. R.K. Singh)							
5	2.2	NRMACSWCRTI CIL200600100008	Evaluating the performance and developing techniques for enhancing growth and seed yield of *Jatropha curcas* in degraded lands of sub-humid Himalayas.	J. Jayaprakash D. Mandal	Plant Science Dehradun	2006-07	Research Farm
Comments: Progress is very good.							
6	2.2	NRMACSWCRTI CIL200800800021	Bio-engineering measures for resource conservation and management in red sloping lateritic soils of Orissa.	D.C. Sahoo P.P. Adhikary	Koraput	2008-09	Research Farm
Comments: Progress is very good. Energy productivity and energy use efficiency may be checked. RPP-IV may be submitted. (Action: Dr. D.C. Sahoo)							
7	4.1	NRMACSWCRTI CIL200400300004	Cost effective conservation measures for management of medium and deep ravine lands.	Shakir Ali A.K. Parandiyal Ashok Kumar R.K. Singh	Kota	2004-05	Research Farm
Comments: Progress is very good. Bulletin may be prepared by December, 2015. (Action: Dr. Shakir Ali)							

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	5.2	NRMACSWCRTI CIL200801500028	Evaluation of institutional arrangements and impact of community based water storage structures in different agro-climatic zones of India.	Pradeep Dogra Bankey Bihari B.L. Dhyani D.R. Sena	PME Cell, Dehradun	2008-09	Uttarakhand
				S.L. Arya V.K. Bhatt	Chandigarh		Panchkula, Haryana
				Om Prakash	Datia		Datia district
				Ashok Kumar Shakir Ali	Kota		Udaipur & Kota districts
				P. Sundarambal	Udhagamandalam		Pudukottai, Sivagangai & Villupuram districts
				V.C. Pande G.L. Bagdi	Vasad		Ahmedabad & Jamnagar districts
Comments: Progress is very good. A policy paper may be prepared based on the project. (Action: Dr. Pradeep Dogra and leaders at Research Centres)							
9	6.2	NRMACSWCRTI CIL201200500074	Post-adoption behaviour of farmers towards soil and water conservation technologies of watershed management	G.L. Bagdi R.S. Kurothe	Vasad	2012-13	Navamota, Rebari, Sarnal, Antisar & Vejalpur-Rampura Watersheds
				A.K. Singh R.B. Meena D.C. Meena	Agra		Jalalpur & Agra Watersheds
				S.L. Patil S.K. Srivastava M.N. Ramesha	Bellary		Watersheds of Karnataka & Andhra Pradesh
				S.L. Arya A.K. Tiwari R.P. Yadav	Chandigarh		Kajiana, Mandhala, Johranpur & Aganpur-Bhagwasi Watersheds
				Om Prakash	Datia		Bajni & Jigna Watersheds
				Bankey Bihari Ambrish Kumar	HRD&SS Dehradun		IVLP sites, Raipur and Sabhawala Watersheds
				Ashok Kumar Shakir Ali Kuldeep Kumar	Kota		Chhajawa & Badakhera Watersheds
				P. Sundarambal S. Manivannan D. Dinesh	Udhagamandalam		The Nilgiris, Coimbatore & Erode districts
Comments: Progress is very good.							

NEW PROJECTS APPROVED DURING IRC MEETING – 2015

S. No.	Prog. No.	S. No. of this proc. With RPP No.	Title of the Project	Centre / Division
1.	1.1	1 (NRMAIISWCCIL 201500100087)	Development of intensity-duration-frequency curves using rainfall data for different agro-ecological regions of India.	SS&A, Dehradun
2.	1.1	2 (NRMAIISWCCIL 201500200088)	Assessment of soil erosion fluxes in Uttarakhand.	H&E, Dehradun
3.	1.1	3 (NRMAIISWCCIL 201500300089)	Impact of land use land cover changes on soil erosion susceptibility in Bundelkhand region using Remote Sensing and GIS technique.	Datia
4.	1.2	6 (NRMAIISWCCOL 201500400090)	National Mission on Sustaining Himalayan Eco-system (NMSHE) - Task force on Himalayan agriculture for lower and middle Himalayan region. **(NMSHE Project)**	SS&A, Dehradun/ Chandigarh
5.	1.2	8 (NRMAIISWCCOL 201500500091)	Effect of climate change on hydrology of small watersheds vis-à-vis soil and water conservation measures. (**NICRA Project**)	H&E, Dehradun, Datia, Koraput, Vasad
6.	1.2	9 (NRMAIISWCCIL 201500600092)	Application of integrated spatial science tools for planning a soil erosion linked future landscape regime under changing climate scenario in Dehradun district, Uttarakhand.	H&E, Dehradun
7.	1.3	11 (NRMAIISWCCOL 201500700093)	Environmental tracer based study on erosion induced loss of soil organic carbon and its impact on agronomic productivity and environmental quality. **(ICAR-National Fellow Project)**	National Fellow Programme
8.	2.1	23 (NRMAIISWCCIL 201500800094)	Restoration of shifting cultivated lands for resource conservation and sustainable production in Eastern Ghats.	Koraput
9.	2.1	24 (NRMAIISWCCIL 201500900095)	Development of conservation agriculture practices for rainfed production systems in different agro-ecological regions of India.	Kota (Observational trial at Agra, Datia, Dehradun, Koraput & Udhagamandalam during 2015-16)
10.	2.1	26 (NRMAIISWCCIL 201501000096)	High value forage grass strips for resource conservation and enhancing production in crop fields.	Vasad
11.	2.2	34 (NRMAIISWCCIL 201501100097)	Evaluation of multitier agro-forestry system for utilization of marginal lands using soil amendments.	Plant Science, Dehradun
12.	2.2	35 (NRMAIISWCCIL 201501200098)	Phyto-rehabilation of saline-sodic vertisols through *Prosopis juliflora* based silvipastoral system.	Bellary
13.	2.2	39 (NRMAIISWCCIL 201501300099)	Evaluation of promising fruit species with different moisture conservation practices in red soils of Bundelkhand region.	Datia

S. No.	Prog. No.	S. No. of this proc. With RPP No.	Title of the Project	Centre / Division
14.	2.2	40 (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.	Koraput
15.	3.1	47 (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.	Koraput
16.	3.1	48 (NRMAIISWCCIL 201501600102)	Modelling the nutrient movement in agricultural watersheds and their impact on surface water resources of Nilgiris.	Udhagamandalam
17.	3.2	50 (NRMAIISWCSIP 201501700103)	Development and rejuvenation of natural springs through soil and water conservation measures.	SS&A, Dehradun
18.	3.2	51 (NRMAIISWCCIL 201501800104)	Water quality assessment and its impact on adjacent soil and vegetation in riparian areas of Hindon and Kali rivers.	Plant Science, Dehradun
19.	3.2	52 (NRMAIISWCSOL 201501900105)	Consortia Research Platform-Water Theme 1 Water Resources Augmentation/ Conservation. **(Water Platform Project)**	H&E, Dehradun/Agra/ Bellary/Chandigarh/ Datia/ Koraput /Kota/ Udhagamandalam/Vasad
20.	3.2	54 (NRMAIISWCCOL 201502000106)	Efficient groundwater management for enhancing adaptive capacity to climate change in sugarcane based farming systems in Muzaffarnagar district, U.P. **(NMSA-MoA Project)**	HRD&SS, Dehradun
21.	3.2	56 (NRMAIISWCCIL 201502100107)	Status of point and non-point sources of pollution in Yamuna river and phytoremediation of polluted cropped Yamuna flood plains with *Vetiver* grass.	Agra
22.	3.2	62 (NRMAIISWCCIL 201502200108)	Strategies for rainwater harvesting and its multiple uses in rainfed agriculture in Central Gujarat.	Vasad
23.	4.1	65 (NRMAIISWCCIL 201502300109)	Ecological restoration of stone mine spoil area in south-eastern Rajasthan.	Kota
24.	5.1	70 (NRMAIISWCCIL 201502400110)	Evaluation of criteria and techniques for classification of fisheries-sensitive watershed for conservation and production management.	H&E, Dehradun
25.	5.1	71 (NRMAIISWCCIL 201502500111)	Socio-economic analysis of tribal farming system in different topo-sequence in Koraput District, Odisha.	Koraput
26.	6.1	72 (NRMAIISWCCIL 201502600112)	Developing ICT based e-learning tools for conservation measures and watershed management.	H&E, Dehradun
27.	6.2	74 (NRMAIISWCCIL 201502700113)	Documentation and validation of ITKs in soil and water conservation practises by tribal farmers of Tamil Nadu.	Udhagamandalam
28.	6.2	75 (NRMAIISWCSOP 201502800114)	Ensuing sustainable agricultural development and livelihood security in lower Shiwalik range of Uttarakhand. **(DST Funded Project)**	SS&A, Dehradun

STATUS OF NUMBER OF PROJECTS

No. of projects in 2014-15	Projects concluded in 2014-15	New projects added in 2015-16	Total no. of projects in 2015-16
A	B		D = A-B+C
56	09	28	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	14	30	19	05	03	04	75

OBSERVATIONAL TRIALS APPROVED FOR 2015-16

S. No.	Title of project	Leader & Associates	Centre / Division
1.	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: Leader may visit to ICAR-IISS, Bhopal and any other renowned Institute of India working on bio-degradable / farm wastes management. (Action: Dr. Lekh Chand)			
2.	Evaluation of strategic tillage based agro-geo-textiles for resource conservation and yield simulation of maize based cropping systems.	Ramanjeet Singh B.N. Ghosh, S. Patra N.M. Alam, A.K. Gupta	SS&A Division
Comments: Leader should define the strategic tillage practice. (Action: Dr. Ramanjeet Singh)			
3.	Evaluation of *Melia dubia* performance in SAT region under different agro-forestry practices.	M.N. Ramesha S.L. Patil	Bellary
Comments: Seeds for raising nursery may be collected from different parts of Karnataka and identified. (Action: Dr. M.N. Ramesha)			
4.	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
		O.P.S. Khola K. Kannan K. Rajan, S. Manivannan	Udhagamandalam
Comments: The study may be conducted as an Observational Trial for 2015-16 and infrastructure should be ensured for taking up as a project. (Action: Dr. N.K. Sharma and leaders at different locations)			

NEW PROJECT PROPOSALS SUBMITTED FOR CONSIDERATION IN THE RAC/IRC MEETINGS -2015

New Project Proposals Agreed by the RAC

S. No.	Title of Project	Leader & Associate	Duration	Location of Project	Remarks of RAC	Remarks of IRC
PLANT SCIENCE DIVISION, DEHRADUN						
1.	Evaluation of multitier agro-forestry system for utilization of marginal lands using soil amendments.	J. Jayaprakash A.C. Rathore	2015-16 to 2024-25	Research Farm, Selakui	• Stone mulch treatment should be included • Recommended tree species (fodder and fruits) for the region need to be taken up. • Include grass and legume as understory crop **Agreed**	• Select the prevalent varieties prevalent in the region • Drop jamun, include only bel & olive • Initially go for legumes for 4 years • Include Dr. D.V. Singh as one of the associate **Approved**
2.	Water quality assessment and its impact on adjacent soil and vegetation in riparian areas of Hindon and Kali rivers.	A.K. Gupta O.P. Chaturvedi Ambrish Kumar U.K. Maurya Rajesh Kaushal	2015-16 to 2019-20	Hindon and Kali river basins in Saharanpur, Muzzafarnagar, Meerut etc. districts	• Environmental flow should be included. • Linkage with CSSRI should be taken up. • Effect on vegetables, sugarcane and other agriculture crops should also be studied. **Agreed**	**Approved**
3.	Effect of planting densities and moisture conservation practices on growth, yield and resource conservation in pomegranate under degraded land.	A. S. Morade A.C. Rathore M. Sankar	2015-16 to 2025-26	Research Farm, Selakui	• Delete the spacing treatment and only recommended spacing should be used. • Stone mulch treatment should be included**.** **Agreed**	Plantation to be done for establishment. **Not approved**
4.	Growth-yield, hydrological behaviour and soil health in guava under ultra-high density planting.	A.S. Morade	2015-16 to 2023-24	Research Farm, Selakui	• Spacing of 5x5m should not be included. • Mulching treatment should be excluded and only recommended mulching should be included. • Use cover crop during initial years**.** **Agreed**	**Not presented, so dropped**

SS&A DIVISION, DEHRADUN						
5.	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	2015-16 to 2020-21	Research Farm, Selakui	• PI should visit Jyoti Energy Institute in Gujarat. • Review need to be done to identify the gaps in already published work and find out the nutrient content in different treatments. • Treatments which are practically feasible only should be taken. **Agreed as an observational trial**	**Approved as an observational trial for one year**
6.	Structural dynamics of mineral fabric and root dynamics in soil & water conservation measures and crop productivity.	U.K. Maurya B.N. Ghosh Lekh Chand Rajesh Kaushal	2015-16 to 2020-21	Research Farm, Selakui	**Agreed**	May be presented next year with some conclusion. **Not approved**
7.	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	2015-16 to 2018-19	Different agro-ecological regions of India	**Agreed**	Approved for three years upto 2017-18. **Approved**
8.	Evaluation of strategic tillage based agro-geo-textiles for resource conservation and yield simulation of maize based cropping systems.	Ramanjeet Singh B.N. Ghosh S. Patra N.M. Alam A.K. Gupta	2015-16 to 2020-21	Research Farm Selakui (Seven runoff plots of 4% landslope are available at research farm, Selakui, which are presently being used for bulk cropping of maize-wheat system	• Use agro-geojute-textile instead of agro-geo-textile in title. • Strategic tillage need to be explained. • Cost-effectiveness should be discussed. **Agreed**	• First establish that strategic tillage is better than other tillages. **Approved as an observational trial for one year.**
9.	Development of conservation agriculture practices for rainfed production systems in different agro-ecological regions of India-a core project.	N.K. Sharma Associates: Agra, Chandigarh, Datia, Kota and Koraput	2015-16 to 2020-21	Core project sites at Dehradun, Agra, Kota, Koraput, Chandigarh and Datia	Conservation practices in each region should be specified **Agreed**	• Considering infrastructure available, it may be started from next year. Take this year as observational trial at Agra, Dehradun, Datia, Koraput & Udhagamandalam • Kota may conduct during 2015-16 as independent project. **Approved**

H&E DIVISION						
10.	Assessment of soil erosion fluxes of Uttarakhand.	P.R. Ojasvi P.K. Mishra D.R. Sena	2015-16 to 2017-18	Headquarters	**Agreed**	**Approved**
11.	Developing ICT based E-learning tools for conservation measures and watershed management.	Chayna Jana S.S. Shrimali N.M. Alam Rajesh Kaushal Ramanjeet Singh	2015-16 to 2018-19	Different agro-ecological regions of India	**Agreed**	**Approved**
AGRA						
12.	Status of point and non-point sources of pollution in Yamuna river and phyto-remediation of polluted cropped Yamuna flood plains with *Vetiver* grass	Rama Pal A.K. Parandiyal A.K. Singh S.K. Dubey	2015-16 to 2019-20	Yamuna river traversing Mathura-Agra-Firozabad (UP)	• PI should visit the work being undertaken by Prof. S.K. Billore of Ujjain University on *Vetiver* before IRC. **Agreed**	• Discuss with Mr. A.K. Gupta who is already working in upper catchment area under new proposal listed at S.No.2 for further improvement. **Approved**
BELLARY						
13.	Evaluation of efficient and cost effective sealant for seepage control in dug-out farm ponds in the semi-arid region	S.K. Srivastava	2015-16 to 2020-21	Research Farm (3 existing dugout ponds) Veerapura Pond (1 existing dugout pond) Joladarasi Pond (1 existing dugout pond)	• PI should do the complete review and justify the project in IRC. **Agreed**	**Not approved**
14.	Evaluation of *Melia dubia* performance in SAT region under different agro-forestry practices.	M.N. Ramesha S.L. Patil	2015-16 to 2025-26	At farmers field in different watersheds of different agro-climatic regions of Karnataka	• PI should make survey of *Melia dubia* growing areas in Karnatka. • PI should collect the seeds for raising nursery of *Melia dubia* from different parts of Karnatka rather than bringing from FC&RI, Mettupalayam. • Project may be resubmitted next year after evaluating nursery performance. **Agreed as an observational trial**	• First identify the progeny seeds in Karnataka and raise nursery **Approved as an Observation Trial for one year**

DATIA						
15.	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	2015-16 to 2018-19	Bundelkhand region of central India (7 districts of Uttar Pradesh & 6 districts of M.P.)	Link to the work for impact assessment of Bundelkhand package by Central Government **Agreed**	• Uniform approach to be followed for determining R-factor. • Include Dr. Om Prakash as associate. **Approved**
16.	Evaluation of promising fruit species with different moisture conservation practices in red soil of Bundelkhand region.	Manish Kumar Rajeev Ranjan S.P. Tiwari Monalisha Pramanik	2015-16 to 2020-21	Research Farm, Datia	**Agreed**	• Ensure availability of water. • Also ensure no over grazing by animals and protection from wild animals. **Approved**
KORAPUT						
17.	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 Co-PI: Will be finalized if approved depending on research project load of Scientists in IRC	2015-16 to 2020-21	A watershed in Semiliguda block, Koraput Distt., Odisha	Mimosa is invasive and should be excluded. Instead, some local cover crops should be included. **Agreed**	**Approved**
18.	Restoration of shifting cultivated lands for resource conservation and sustainable production in Eastern Ghats	D.C. Sahoo Co-PI: Will be finalized if approved depending on research project load of Scientists in IRC	2015-16 to 2022-23	Shifting cultivated area in Koraput distt., Odisha	PI should first work on providing full status of shifting cultivation with emphasis on fallow cycle in Odisha. **Agreed as an observational trial**	**Approved**
19.	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. Jyotiprava Dash Co-PI: Will be finalized if approved depending on Research Project load of Scientists in IRC	2015-16 to 2018-19	A watershed in Semiliguda block, Koraput distt., Odisha	• Three years are not sufficient to conclude the project and thus it should be made a long term project. • Land use detail should be presented. **Agreed**	• Review the work done on effect of length of slopes at other centres. • However, approved for 4 years. **Approved**

20.	Socio-economic analysis of farming across different land categories (topo-sequence) in Koraput District, Odisha.	Mukesh Kumar Co-PI: Will be finalized if approved depending on research project load of Scientists in IRC	2015-16 to 2018-19	Koraput distt., Odisha	Project should end with specific recommendation. **Agreed**	• Visit Raipur and Jagdalpur Universities so as to know gap of work to be done. Review literature. • Modify the title. **Approved**
KOTA						
21.	Developing phyto-remediation techniques for post mined rehabilitation of Mine Spoil Areas in South Eastern Rajasthan.	A. K. Parandiyal R.K. Singh B.L. Mina Ashok Kumar	2015-16 to 2024-25	Three mine spoil sites in Kota district	Head should propose the name of new PI as Dr. A.K. Prandiyal has been transferred to Agra Centre. **Agreed**	Modify the treatments as per discussion in the IRC. **Approved**
UDHAGAMANDALAM						
22.	ITKs in soil and water conservation and livelihood activities practiced by tribal farmers of Tamil Nadu.	P. Sundarambal V. Selvi D. Dinesh R. Ragupathy K. Kannan	2015-16 to 2018-19	7 districts of Tamil Nadu with relatively higher tribal population	PI should validate ITKs with scientific interventions. **Agreed**	Drop livelihood activity from study. **Approved**
VASAD						
23.	Strategies for rainwater harvesting and its multiple uses in rainfed agriculture in Central Gujarat.	P. R. Bhatnagar B.K. Rao Gopal Kumar G.L. Bagdi V.C. Pande	2015-16 to 2018-19	Research Farm, Vasad and farmers fields in adopted watersheds in Panchmahal and Kheda districts of Gujarat	**Agreed**	Third objective should be dropped. **Approved**
24.	Impact of post-adoption of soil and water conservation technologies for watershed management programmes in Gujarat State.	G.L. Bagdi P.R. Bhatnagar V.C. Pande Raj Kumar	2015-16 to 2022-23	Watersheds of Gujarat State	• PI should provide the justification that how is project different from previous core project. • Justify the budget which seems very high **Agreed**	**Not presented, so dropped**

New Project Proposals Not Agreed by the RAC

Sl. No.	Title of Project	Leader & Associate	Centre/ Division	Remarks of RAC
1.	Long term trend analysis of precipitation distribution and other weather parameters under different agro-ecological regions in India.	G.C. Sharma N.M. Alam	PME Cell, Dehradun	**Not agreed** • Lot of work has already been done and compiled in Climate change report No. 4. • Formulate new project on Statistical design for analyzing data for sloping land by collecting data from different centres.
2.	Development of conservation agricultural practices for rainfed production systems in different agro ecological regions of India	Dileep Kumar R.B. Meena K.K. Sharma D.C. Meena	Agra	**Not agreed** To be merged with core project on Conservation Agriculture by Dr. N.K. Sharma, Dehradun
3.	Potassium management for restoring soil K balance and improving crop yields in vertisols.	H. Biswas Suresh Kumar	Bellary	**Not agreed** • Lot of work has been done. • Write review paper and identify the gaps.
4.	Participatory evaluation of grain and vegetable crops based CBT system in Eastern Ghats high land region of Odisha.	B.S. Naik	Koraput	**Not agreed** PI should review the work of Dehradun on CBT and find gaps to be taken on farmers field
5.	Conservation tillage systems for enhancing productivity and resource-use efficiency in vertisols of Rajasthan	Kuldeep Kumar B.L. Mina Shakir Ali Ashok Kumar	Kota	**Not agreed** To be merged with core project on Conservation Agriculture by Dr. N.K. Sharma, Dehradun
6.	Subsurface application of high dose of organic materials as entry to minimum tillage: conservation agriculture under rainfed conditions.	Gopal Kumar P.R. Bhatnagar V.C. Pande G.L. Bagdi	Vasad	**Not agreed** Availability of FYM is questionable.

DIVISION/CENTRE-WISE NUMBER OF ON-GOING PROJECTS

A. SL. NO. OF PROJECTS AT DIFFERENT LOCATIONS

S. No.	DIVISION / CENTRE	S. No. OF ON-GOING PROJECTS	TOTAL
1.	Dehradun		
	➢ Soil Science & Agronomy	1, 6, 10, 12, 50, 73, 75	**07**
	➢ Plant Science	15, 16, 27, 28, 29, 30, 31, 32, 33, 34, 45, 46, 51	**13**
	➢ HRD&SS	17, 53, 54	**03**
	➢ Hydrology & Engineering	2, 7, 8, 9, 13, 52, 63, 64, 70, 72	**10**
	➢ PME Cell	69	**01**
	➢ National Fellow Programme	11	**01**
2.	Agra	5, 10, 46, 52, 55, 56, 67, 69	**08**
3.	Bellary	10, 18, 19, 35, 52, 57, 69	**07**
4.	Chandigarh	6, 10, 20, 21, 36, 37, 46, 52, 58, 67, 69	**11**
5.	Datia	3, 8, 10, 22, 38, 39, 52, 67, 69	**09**
6.	Koraput	4, 8, 10, 23, 40, 47, 52, 67, 69, 71	**10**
7.	Kota	5, 10, 24, 41, 42, 43, 46, 52, 59, 65, 67, 69	**12**
8.	Udhagamandalam	10, 14, 25, 44, 46, 48, 52, 60, 66, 67, 69, 74	**12**
9.	Vasad	8, 10, 26, 46, 49, 52, 61, 62, 67, 68, 69	**11**
		TOTAL	**115**

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	-	-	2	**07**
	➢ Plant Science	-	10	3	-	-	-	**13**
	➢ HRD&SS	-	1	2	-	-	-	**03**
	➢ Hydrology & Engineering	5	-	2	1	1	1	**10**
	➢ PME Cell	-	-	-	-	1	-	**01**
	➢ National Fellow Programme	1	-	-	-	-	-	**01**
2.	Agra	2	-	4	1	1	-	**08**
3.	Bellary	1	3	2	-	1	-	**07**
4.	Chandigarh	2	4	3	1	1	-	**11**
5.	Datia	3	3	1	1	1	-	**09**
6.	Koraput	3	2	2	1	2	-	**10**
7.	Kota	2	4	3	2	1	-	**12**
8.	Udhagamandalam	2	2	4	2	1	1	**12**
9.	Vasad	2	1	5	2	1	-	**11**
	TOTAL	**27**	**30**	**32**	**11**	**11**	**04**	**115**

NUMBER OF PROJECTS WITH INDIVIDUAL SCIENTIST

The number of projects with each individual scientist of the Institute, after the IRC Meeting of 2015 is as follows:

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
1.	Dr. P.K. Mishra	Director	2 (6, 7)	6 (1, 2, 8, 52, 63, 73)	8	7, 63
Soil Science and Agronomy Division						
2.	Dr. N.K. Sharma	Head of Division	-	5 (6,10, 53, 63, 69)	5	53, 63
3.	Dr. D.V.Singh	Pr. Scientist (Soils)	1 (73)	4 (29, 31, 34, 63)	5	29, 63
4.	Dr. D. Mandal	ICAR-National Fellow	2 (10, 11)	6 (7, 13, 15, 28, 32, 64)	8	7, 15
5.	Dr. U.K. Maurya	Sr. Scientist (Soils)	1 (50)	4 (4, 6, 51, 54)	5	-
6.	Dr. Lekh Chand	Sr. Scientist (Agro.)	1 (12)	4 (6, 13, 15, 21)	5	15, 21
7.	Mr. M. Shankar	Scientist (Soils)	---------- On Study Leave ----------			
8.	Dr. N.M. Alam	Scientist (Ag. Stat.)	1 (1)	7 (6, 8, 12, 13, 47, 53, 72)	8	53
9.	Dr. Ramanjeet Singh	Scientist (Agro.)	1 (75)	6 (6, 17, 46, 52, 72, 73)	7	17, 46
Plant Science Division						
10.	Dr. O.P. Chaturvedi	Head of Division	2 (29, 45)	1 (51)	3	29
11.	Dr. Harsh Mehta	Pr. Scientist (Pl. Breed.)	3 (15, 28, 33)	1 (34)	4	15
12.	Dr. J.M.S. Tomar	Pr. Scientist (Forestry)	2 (30, 46)	3 (28, 29, 31)	5	29, 30, 46
13.	Dr. Rajesh Kaushal	Sr. Scientist (Forestry)	2 (31, 32)	6 (6, 13, 30, 33, 51, 72)	8	30
14.	Dr. A.C. Rathore	Sr. Scientist (Hort.)	2 (16, 27)	5 (6, 13, 34, 46, 69)	7	16, 27, 46
15.	Dr. J. Jayaprakash	Scientist (Forestry)	1 (34)	3 (29, 32, 45)	4	29
16.	Mr. A.K. Gupta	Scientist (Envt. Sc.)	1 (51)	5 (6, 30, 33, 54, 70)	6	30
17.	Mr. D.M. Kadam	Scientist (Hort.)	-	1 (73)	1	-
Hydrology and Engineering Division						
18.	Dr. P.R. Ojasvi	Head of Division	3 (2, 52, 63)	2 (6, 13)	5	63
19.	Dr. D.R. Sena	Pr. Scientist (Engg.)	1 (8)	5 (1, 6, 7, 9, 12)	6	7
20.	Er. S.S. Shrimali	Sr. Scientist (Com.App.)	1 (64)	4 (6, 15, 52, 72)	5	15
21.	Dr. M. Muruganandam	Sr. Scientist (Fisheries)	1 (70)	4 (6, 46, 53, 69)	5	46, 53
22.	Er. S. Patra	Scientist (Engg.)	1(13)	7 (6, 7, 10, 17, 52, 69, 73)	8	7, 17
23.	Ms. Chayna Jana	Scientist (Ag. Stat.)	1 (72)	7 (1, 6, 8, 9, 13, 64, 70)	8	-
24.	Er. Uday Mandal	Scientist (Engg.)	1 (9)	6 (2, 6, 8, 46, 54, 70)	7	46
Human Resource Development and Social Science Division						
25.	Dr. Lakhan Singh	Head of Division	-	1 (6)	1	-
26.	Dr. Charan Singh	Pr. Scientist (Forestry)	-	5 (6, 29, 45, 63, 73)	5	29, 63
27.	Dr. Bankey Bihari	Pr. Scientist (Ag. Extn.)	-	2 (6, 72)	2	-
28.	Dr. B.N. Ghosh	Pr. Scientist (Soils)	1 (17)	4 (16, 27, 45, 46)	5	16, 17, 27, 46
29.	Dr. Ambrish Kumar	Pr. Scientist (Engg.)	2 (53, 54)	6 (6, 31, 32, 45, 50, 51)	8	53
30.	Dr.(Ms.)Vibha Singhal*	Sr. Scientist(Agro Forestry)	-	-	-	-
31.	Dr.(Ms) Indu Rawat*	Scientist(Home Management/FRM)	-	-	-	-

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
Prioritization, Monitoring and Evaluation Cell						
32.	Dr. G.C. Sharma	Pr. Scientist (Ag. Stat.)	-	1 (1)	1	-
33.	Dr. B.L. Dhyani	Pr. Scientist (Ag. Eco.)	-	1 (53)	1	53
34.	Dr. Pradeep Dogra	Pr. Scientist (Ag. Eco.)	1 (69)	2 (6, 10)	3	-
Research Centre, Agra						
35.	Dr. S.K. Dubey	Head of Centre	1 (10)	4 (5, 46, 55, 56)	5	5, 46, 55
36.	Dr. A.K. Parandiyal	Pr. Scientist (Forestry)	1 (67)	4 (41, 42, 43, 46)	5	41, 42, 43, 46, 67
37.	Dr. A.K. Singh	Pr. Scientist (Engg.)	1 (69)	4 (10, 52, 56, 67)	5	67
38.	Dr. K.K. Sharma	Sr. Scientist (Engg.)	3 (46, 52, 55)	1(5)	4	5, 46, 55
39.	Mr. R.K. Dubey	Scientist (SS) (Agro.)	-	3 (10, 56, 67)	3	67
40.	Dr. R.B. Meena	Scientist (Soils)	1 (5)	3 (52, 67, 69)	4	5, 67
41.	Dr. Dileep Kumar	Scientist (Agro.)	-	3 (46, 55, 69)	3	46, 55
42.	Dr. D.C. Meena	Scientist (Ag. Eco.)	-	1(69)	1	-
43.	Dr.(Ms.) Rama Pal	Scientist (Envt.Sc.)	1 (56)	-	1	-
Research Centre, Bellary						
44.	Dr. A. Raizada	Head of Centre	1 (18)	3 (35, 52, 57)	4	18
45.	Dr. S.L. Patil	Pr. Scientist (Agro.)	1 (69)	2 (10, 19)	3	-
46.	Dr. H. Biswas	Sr. Scientist (Soils)	2 (10, 19)	4 (18, 35, 52, 69)	6	18
47.	Er. B.S. Naik	Scientist (S.S.) (Engg.)	1(52)	1 (18)	2	18
48.	Er. S.K. Srivastava	Scientist (Engg.)	-	-	-	-
49.	Dr. M.N. Ramesha	Scientist (Forestry)	1 (35)	-	1	-
50.	Ms. M. Prabhavathi	Scientist (Soils)	---------- On Study Leave ----------			
51.	Mr. Suresh Kumar	Scientist (Ag. Eco.)	1 (57)	3 (6, 19, 69)	4	-
52.	Mr. A.S. Morade	Scientist (Hort.)	-	1 (18)	1	18
Research Centre, Chandigarh						
53.	Dr. A.K. Tiwari	Head of Centre	1 (67)	3 (6, 10, 52)	4	67
54.	Dr.(Ms.) Pawan Sharma	Pr. Scientist (Soils)	1 (21)	2 (6, 20)	3	20, 21
55.	Dr. (Ms.) S.L. Arya	Pr. Scientist (Ag. Eco.)	1 (69)	4 (6, 20, 36, 37)	5	20, 36
56.	Dr. V.K. Bhatt	Pr. Scientist (Engg.)	2 (46, 52)	5 (6, 21, 37, 58, 67)	7	21, 46, 58, 67
57.	Dr. Ram Prasad	Sr. Scientist (Horti.)	1(36)	4 (6, 46, 58, 69)	5	36, 46, 58
58.	Dr. Pankaj Panwar	Sr. Scientist (Forestry)	3(6, 37, 58)	3 (46, 52, 67)	6	46, 58, 67
59.	Dr.(Ms.)Sharmistha Pal	Scientist (Soils)	2 (10, 20)	8 (6, 36, 37, 46, 52, 58, 67, 69)	10	20, 36, 46, 58, 67
60.	Dr. Sathiya K.	Scientist (Agro.)	---------- On Long Leave ----------			
Research Centre Datia						
61.	Dr. S.P. Tiwari	Head of Centre	-	4 (8, 10, 39, 67)	4	67
62.	Dr. Dev Narayan	Pr. Scientist (Agro.)	3 (10, 22, 69)	-	3	-
63.	Dr. Om Prakash	Pr. Scientist (Ag. Extn.)	-	1 (3)	1	-
64.	Mr. Prabhat Kumar	Scientist (Soils)	1 (38)	3 (10, 22, 69)	4	-
65.	Dr. Rajeev Ranjan	Scientist (Soils)	1 (3)	4 (8, 39, 52, 69)	5	-
66.	Er.(Ms.) Monalisha Pramanik	Scientist (Engg.)	3 (8, 52, 67)	4 (3, 10, 38, 39)	7	67
67.	Mr. Manish Kumar	Scientist (Forestry)	1 (39)	5 (3, 22, 38, 52, 67)	6	67

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
Research Centre, Koraput						
68.	Dr. M. Madhu	Head of Centre	1 (40)	8 (4, 8, 10, 23, 52, 67, 69, 71)	9	67
69.	Dr. D.C. Sahoo	Sr. Scientist (Engg.)	3 (23, 52, 67)	4 (8, 40, 47, 71)	7	67
70.	Mr. H. Gowda	Scientist (Forestry)	---------- On Study Leave ----------			
71.	Mr. P. Jakhar	Scientist (Agro.)	---------- On Study Leave ----------			
72.	Dr. P.P. Adhikary	Scientist (Soils)	2 (8, 10)	6 (4, 23, 40, 47, 67, 71)	8	67
73.	Dr.(Ms.) Ch. J.P. Dash	Scientist (Engg.)	2 (4, 47)	2 (8, 52)	4	-
74.	Mr. M.K. Meena	Scientist (Ag.Eco.)	2 (69, 71)	1 (23)	3	-
Research Centre, Kota						
75.	Dr. R.K. Singh	Head of Centre	1 (10)	5 (5, 43, 52, 59, 65)	6	5, 43, 59
76.	Dr. Ashok Kumar	Pr. Scientist (Ag. Eco.)	1 (69)	5 (24, 41, 42, 65, 67)	6	41, 42, 67
77.	Dr. Shakir Ali	Pr. Scientist (Engg.)	2 (46, 67)	2 (24, 65)	4	46, 67
78.	Dr. B.L. Mina	Sr. Scientist (Soils)	1 (65)	4 (10, 24, 43, 46)	5	43, 46
79.	Mr. H.R. Meena	Scientist (SS) (Hort.)	1 (41)	4 (46, 59, 65, 69)	5	41, 46, 59
80.	Dr. G.L. Meena	Scientist (Soils)	3 (5, 52, 59)	2 (41, 42)	5	5, 41, 42, 59
81.	Dr. Kuldeep Kumar	Scientist (Agro.)	1 (24)	1 (10)	2	-
82.	Dr. (Ms.) S. Kala	Scientist (Forestry)	2 (42, 43)	4 (41, 46, 65, 67)	6	41, 42, 43, 46, 67
Research Centre, Udhagamandalam						
83.	Dr. O.P.S. Khola	Head of Centre	-	6 (14, 25, 48, 52, 60, 66)	6	14, 60, 66
84.	Dr. K. Kannan	Pr. Scientist (Agro.)	4 (10, 25, 46, 69)	3 (66, 67, 74)	7	46, 66, 67
85.	Dr. S. Manivannan	Pr. Scientist (Engg.)	4 (52, 60, 66, 67)	1 (48)	5	60, 66, 67
86.	Dr.(Ms) P.Sundarambal	Sr. Scientist (Ag. Extn.)	1 (74)	-	1	-
87.	Dr. K. Rajan	Sr. Scientist (Soils)	1 (14)	5 (44, 48, 60, 66, 67)	6	14, 60, 66, 67
88.	Dr. R. Ragupathy	Scientist (SS) (Forestry)	1 (44)	2 (14, 74)	3	14
89.	Er. (Ms) V. Selvi	Scientist (SS) (Engg.)	---------- On Study Leave ----------			
90.	Dr. D. Dinesh	Scientist (Soils)	-	5 (10, 25, 52, 69, 74)	5	-
91.	Dr.(Ms) V.K. Thilagam	Scientist (Soils)	1 (48)	2 (14, 25)	3	14
Research Centre, Vasad						
92.	Dr. P.R. Bhatnagar	Head of the Centre	2 (52, 62)	3 (8, 61, 67)	5	61, 67
93.	Dr. R.S. Kurothe	Pr. Scientist (Engg.)	2 (49, 67)	2 (10, 61)	4	49, 61, 67
94.	Dr. V.C. Pande	Sr. Scientist (Ag.Eco.)	1 (69)	7 (6, 8, 26, 49, 62, 67, 68)	8	49, 67
95.	Dr. B.K. Rao	Sr. Scientist (Engg.)	3 (26, 46, 61)	4 (8, 52, 62, 68)	7	46, 61
96.	Dr. Gopal Kumar	Scientist (Soils)	2 (8, 10)	8 (26, 46, 49, 52, 62, 67, 68, 69)	10	46, 49, 67
97.	Dr. Raj Kumar	Scientist (Forestry)	1 (68)	1 (46)	2	46

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

*Newly joined during May 2015.

LIST OF PARTICIPANTS

S.No.	Name	Designation	Participation in IRC as
1.	Dr. P.K. Mishra	Director	Chairman
CSWCRTI, DEHRADUN			
2.	Dr. O.P. Chaturvedi	Head (Plant Science Division)	Member & PI: P-2.2
3.	Dr. N.K. Sharma	Head (SS&A Division)	Member & PI: P-2.1
4.	Dr.Lakhan Singh	Head, HRD&SS Division	Member
5.	Dr. P.R. Ojasvi	Head (H&E Division)	Member & PI: P-1
6.	Dr.G.C.Sharma	OIC, PME Cell	Member Secretary, IRC
7.	Dr. B.L. Dhyani	Principal Scientist(Ag. Eco.)	
8.	Dr.Charan Singh	Principal Scientist(Forestry)	
9.	Dr. Harsh Mehta	Principal Scientist (Plant Breeding)	OIC, ITMU
10.	Dr. Bankey Bihari	Principal Scientist (Ag. Extn.)	PI: P-6
11.	Dr. Pradeep Dogra	Principal Scientist (Ag. Eco.)	PI: P-5
12.	Dr. B.N. Ghosh	Principal Scientist (Soils)	
13.	Dr. Ambrish Kumar	Principal Scientist (Engg.)	PI: P-4
14.	Dr. D.V. Singh	Principal Scientist (Soils)	
15.	Dr. D.R. Sena	Principal Scientist (Engg.)	PI: P-3
16.	Dr. J.M.S. Tomar	Principal Scientist (Forestry)	
17.	Dr. D. Mandal	ICAR-National Fellow	
18.	Er. S.S. Shrimali	Senior Scientist(CAA)	
19.	Dr. Rajesh Kaushal	Senior Scientist (Forestry)	Member Secretary, RAC
20.	Dr. M. Muruganandam	Senior Scientist (Fisheries)	
21.	Dr. A.C. Rathore	Senior Scientist (Hort.)	
22.	Dr. U.K. Maurya	Senior Scientist (Soils)	
23.	Dr. Lekh Chand	Senior Scientist (Agro.)	
24.	Dr.(Ms.)Vibha Singhal	Sr. Scientist(Agro Forestry)	
25.	Dr. J. Jayaprakash	Scientist (Forestry)	
26.	Er. S. Patra	Scientist (Engg.)	
27.	Dr. N.M. Alam	Scientist (Ag. Stat.)	
28.	Ms. Chayna Jana	Scientist (Ag. Stat.)	
29.	Dr. Ramanjeet Singh	Scientist (Agro.)	
30.	Er. Uday Mandal	Scientist (Engg.)	
31.	Mr. A.K. Gupta	Scientist (Ent. Sc.)	
32.	Mr. A.S. Morade	Scientist (Hort.)	
33.	Dr.(Ms) Indu Rawat	Scientist(Home Management/FRM)	
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.	Mr. R.K. Dubey	Scientist (SS) (Agro.)	
42.	Dr. R.B. Meena	Scientist (Soils)	
43.	Dr. Dileep Kumar	Scientist (Agro.)	
44.	Dr. D.C. Meena	Scientist (Ag.Eco.)	
45.	Dr.(Ms.) Rama Pal	Scientist (Envt. Sc.)	
RESEARCH CENTRE, BELLARY			
46.	Dr. A. Raizada	Head of the Centre	Member
47.	Dr. H. Biswas	Senior Scientist (Soils)	
48.	Er. B.S. Naik	Scientist (SWC Engg.)	

S.No.	Name	Designation	Participation in IRC as
49.	Er. S.K. Srivastava	Scientist (Engg.)	
50.	Dr. M.N. Ramesha	Scientist (Forestry)	
51.	Mr. Suresh Kumar	Scientist (Ag. Eco.)	
RESEARCH CENTRE, CHANDIGARH			
52.	Dr. A.K. Tiwari	Head of the Centre	Member
53.	Dr. (Ms.) Swarn Lata Arya	Principal Scientist (Ag. Eco.)	
54.	Dr. V.K. Bhatt	Principal Scientist (Engg.)	
55.	Dr. Ram Prasad	Senior Scientist (Hort.)	
56.	Dr. Pankaj Panwar	Senior Scientist (Forestry)	
57.	Dr. Sharmistha Pal	Scientist(Soil Science)	
RESEARCH CENTRE, DATIA			
58.	Dr. S.P. Tiwari	Head of the Centre	Member
59.	Dr. Dev Narayan	Principal Scientist (Agro.)	
60.	Dr. Om Prakash	Principal Scientist (Ag. Extn.)	
61.	Mr. Prabhat Kumar	Scientist (Soils)	
62.	Dr. Rajeev Ranjan	Scientist (Soils)	
63.	Er.(Ms.) Monalisha Pramanik	Scientist (Engg.)	
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. P.P. Adhikary	Scientist (Soils)	
68.	Dr.(Ms.) Ch. J.P. Dash	Scientist (Engg.)	
69.	Mr. M.K. Meena	Scientist (Ag.Eco.)	
RESEARCH CENTRE, KOTA			
70.	Dr. R.K. Singh	Head of the Centre	Member
71.	Dr. Ashok Kumar	Principal Scientist (Ag. Eco.)	
72.	Dr. Shakir Ali	Principal Scientist (Engg.)	
73.	Dr. B.L. Mina	Senior Scientist (Soils)	
74.	Mr. H.R. Meena	Scientist (Hort.)	
75.	Dr. G.L. Meena	Scientist (Soils)	
76.	Dr. Kuldeep Kumar	Scientist (Agronomy)	
77.	Dr.(Ms.)S.Kala	Scientist(Forestry)	
RESEARCH CENTRE, UDHAGAMANDALAM			
78.	Dr. K. Kannan	I/C Head of the Centre	Member
79.	Dr. S. Manivannan	Principal Scientist (Engg.)	
80.	Dr. P. Sundarambal	Senior Scientist (Ag. Extn.)	
81.	Dr. K. Rajan	Senior Scientist (Soils)	
82.	Dr. R. Ragupathy	Scientist (SS) (Forestry)	
83.	Dr. D. Dinesh	Scientist (Soils)	
84.	Dr.(Ms.) V.K. Thilagam	Scientist (Soils)	
RESEARCH CENTRE, VASAD			
85.	Dr. P.R. Bhatnagar	Head of the Centre	Member
86.	Dr. R.S. Kurothe	Principal Scientist (Engg.)	
87.	Dr. G.L. Bagdi	Principal Scientist (Ag. Extn.)	
88.	Dr. V.C. Pande	Senior Scientist (Ag. Eco.)	
89.	Dr. B.K. Rao	Senior Scientist (Engg.)	
90.	Dr. Gopal Kumar	Scientist (Soils)	
91.	Dr. Raj Kumar	Scientist (Forestry)	