

PREAMBLE BY THE CHAIRMAN

Dr. P.K. Mishra, Director, CSWCRTI and Chairman of Institute Research Committee (IRC) welcomed the Heads of the Research Centres and Divisions, and Scientists to the IRC Meeting of 2014. Highlighting the importance of the meeting, he expressed that the interaction is essential for fulfilling expectations of the nation from us through participatory problem solving. Clarity about role of each scientist, deliverance for justifying the huge amount of public money being spent by the Institute, and maintaining high prestige of the Institute are the aspects that need to be persevered with by all. With change in the Central Government under who's Ministry of Agriculture we work, these aspects of our work have become more important, as desired by the Competent Authority of the highest level in the country.

For better coordination and deliverance, the Chairman emphasised upon the Institute's Centres to respond quickly to queries of the Headquarter, as the Headquarter itself is hard pressed to meet the expectations of the Council and Ministry. The Council has now highly emphasised upon deliverance on field as it desires that half of the working time is to be devoted directly or indirectly for farmers by the scientists.

The Chairman informed the house that the Institute's SFC for the XII Plan has been prepared with lot of deliberations for better deliverance, and is likely to be approved shortly. However, if any financial shortcomings are faced, then the Headquarter can be approached or funds can be generated through external funding, especially for R&D.

For the Master's Degree Programme in Integrated Watershed Management that will be starting in 2015-16 in the Institute as an Off-Campus of Indian Agricultural Research Institute, New Delhi, the Chairman cautioned the scientists to update their knowledge as well as upgrade themselves in the latest developments in their major fields. For example, even in subject like agronomy, the discipline of mathematics has now gained importance. Further, there is a need to come into the mode of least dependence as far as technical, administrative and financial staff is concerned. This is being followed by R&D organizations that are delivering world class outputs.

Concluding his address, the Chairman expressed his happiness on the good work that the Institute is doing, but cautioned that we should now gear ourselves as per the new paradigms of working for better deliverance leading to faster agricultural development of the nation that is on a path progress. Discussions in the present IRC should be in this direction.

AGENDA & PROGRAMME OF IRC MEETING - 2014

DATE (Day)	TIME	AGENDA & PROGRAMME
23.06.2014 (Monday)	2:30 pm	Welcome and opening remarks of the Chairman
	3:00 pm	Recommendations of RAC-2014 & Status of new proposals agreed - Member Secretary, RAC
	3:15 pm	Action Taken Report on the actions assigned in the IRC Meeting, 2013 - Member Secretary, IRC
	4:15 pm	Tea Break
	4:30 pm	Presentation of Performance Indicator of Research Centres & Divisions - Mr. Suresh Kumar, Scientist (Ag. Econ.), Research Centre, Bellary
	5:00 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.6 (Erosion productivity relationships) (P-1) : Dr. D. Mandal - Sl.No. 48 (Evaluation of hydrological) (P-3) : Dr. J.M.S. Tomar - Sl.No. 60 (Field evaluation of trenches) (P-4) : Dr. R.S. Kurothe
24.06.2014 (Tuesday)	10:00 am	Presentation of Core Projects by the leaders of core groups - Sl.No. 63 (Multiple criteria decision) (P-5) : Dr. P. Dogra - Sl. No.64 (Evaluation of institutional) (P-6) : Dr. P. Dogra - Sl. No.66 (Post-adoption behaviour) (P-7) : Dr. G.L. Bagdi
	11:30 am	Tea Break
	11:45 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. 8 (P-1) - Dr. D. Mandal - Sl. No. 9 (P-1) - Dr. D. R. Sena - Sl. No. 59(P-4) - Dr. S. Manivannan - Sl. No. 67(P-7) - Dr. Ramanjeet Singh - TDET, Dehradun(P-6) - Dr. B.L. Dhyani
	1:30 pm	Lunch Break
	2:30 pm	Presentation of Projects due for completion (to be concluded) in 2013-14 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. 1 (P-1) - Ms. Chayna Jana - Sl.No. 2 (P-1) - Dr. N.M. Alam - Sl.No. 3 (P-1) - Dr. P.P. Adhikary - Sl.No. 13 (P-2.1) - Dr. N.K. Sharma - Sl.No. 24 (P-2.1) - Dr. P.P. Adhikary
	4:15 pm	Tea Break
	4:30 pm	Presentation of Projects due for completion (to be concluded) in 2013-14 by the Project Leaders - Sl.No. 25 (P-2.1) - Dr. P.P. Adhikary - Sl.No. 46 (P-3) - Dr. D.R. Sena - Sl.No. 52 (P-3) - Dr. Gopal Kumar - Sl.No. 56 (P-4) - Dr. G.P. Juyal - Sl.No. 58 (P-4) - Dr. A.K. Parandiyal
25.06.2014 (Wednesday)	10:00 am	Presentation of projects approved in IRC Meeting, 2013 by the concerned Heads 10 minutes will be given to each project (05 minutes for presentation and 05 minutes for discussion and comments) - Sl.No. 19 (P-2.1) - Head, Research Centre, Bellary - Sl.No. 62 (P-5) - Head, Research Centre, Kota - Sl. No. 65 (P-7) - I/c Head, HRD&SS Division

	10:30 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 and comments) - Sl.No. 4, 5, 7, 10 (P-1)
	11:30 am	Tea Break
	11:45 am	Presentation of Ongoing (to be continued) projects - Sl.No. 11, 12, 14, 15, 16, 17 (P-2.1)
	1:15 pm	Lunch Break
	2:15 pm	Presentation of Ongoing (to be continued) projects - Sl.No. 18, 20, 21, 22, 23, 26 (P-2.1)
	3:45 pm	Tea Break
	4:00 pm	Presentation of Ongoing (to be continued) projects - Sl.No. 27, 28, 29, 30, 31, 32, 33, 34 (P-2.2)
26.06.2014 (Thursday)	10.:00 am	Presentation of Ongoing (to be continued) projects - Sl.No. 35, 36, 37, 38, 39, 40 (P-2.2)
	11.30 am	Tea Break
	11.45 am	Presentation of Ongoing (to be continued) projects - Sl.No. 41, 42, 43, 44, 45 (P-2.2)
	1:00 pm	Lunch Break
	2:00 pm	Presentation of Ongoing (to be continued) projects - Sl.No. 47, 49, 50, 51, 53, 54, 55 (P-3) - Sl.No. 57 (P-4) - Sl.No. 61 (P-5)
	4:15 pm	Tea Break
	4:30 pm	Presentation of Observational Trials listed on page no. 38 of IRC meeting proceeding 2013 15 minutes will be given to each project (10 minutes for presentation and 05 minutes for discussion and comments) - Sl.No. 1 (P-4) - Dr. G.P. Juyal - Sl.No. 2 (P-2.1) - Dr. D.V. Singh - Sl.No. 3 (P-3) - Dr. Ambrish Kumar
5:15 pm	Presentation of Externally Funded New Projects by the Project Leaders 20 minutes will be given to each project (15 minutes for presentation and 05 minutes for discussion and comments) - DST funded NMSHE project - Dr. N.K. Sharma - ICAR – IWMI project - Dr. P.R. Ojasvi - DST funded project (Vasad Centre) - Dr. B.K. Rao	
27.06.2014 (Friday)	10:00 am	Presentation of New Project Proposals agreed by RAC 2014 by the Project Leaders . 30 minutes will be given to each project. (20 minutes for presentation and 10 minutes for discussion and comments) - Sl.No.1 (Influence of -----Yamuna ravines) - Dr. Dileep Kumar - Sl.No.2 (Economic -----ravines of UP) - Mr. D.C. Meena - Sl.No.3 (Phyto-rehabilitation-----system) - Dr. M.N. Ramesha
	11:30 am	Tea Break
	11:45 am	Presentation of New Project Proposals agreed by RAC-2014 - Sl.No.4 (Socio-economic-----Deccan) - Mr. Suresh Kumar - Sl.No.5 (Mapping-----Koraput district) - Ms. J.P. Dash - Sl.No.6 (Cover crops-----hilly areas) - Dr. K. Kannan
	1:15 pm	Lunch Break
	2:15 pm	Presentation of New Project Proposals agreed by RAC-2014 - Sl.No.7 (Impact of -----Nilgiris) - Ms. V.K. Thilagam - Sl.No.8 (Determining-----erosion) - Dr. Raj Kumar - Sl.No.9 (Assessment-----hill streams) - Er. S.S. Shrimali

	3:45 pm	Tea Break
	4:00 pm	Presentation of New Project Proposals agreed by RAC-2014 - Sl.No.10 (Development-----India) - Er. S. Patra - Sl.No.11 (Evaluation-----terraced lands) - Er. S. Patra - Sl.No.12 (Application-----Uttarakhand) - Er. Uday Mandal - Sl.No.13 (Development-----measures) - Dr. U.K. Maurya
28.06.2014 (Saturday)	10:00 am	Presentation of New Research Programmes/Themes - Dr. P.R. Ojasvi, Pr. Scientist (Engg.)
	10:30 am	Presentation of Project on Water Platform - Dr. P.R. Ojasvi, Pr. Scientist (Engg.)
	10:45 am	Presentation of Project on NICRA - Dr. D.R. Sena, Pr. Scientist (Engg.)
	11:00 am	Presentation of Project on Conservation Agriculture - Dr. N.K. Sharma, Head, SS&A Division
	11:15 am	Presentation & Discussion on ITMU - Dr. Harsh Mehta, OIC, ITMU
	11:30 am	Tea Break
	11:45 am	Discussion on ATR of Director's Conference held on 20th January, 2014 and Proceedings of Director's conference held on 28th April, 2014
	12:15 pm	Presentation of PME/PMC functions & RPPs - Dr. B.L. Dhyani, OIC, PME Cell
	12:30 pm	Presentation of RFD of Research Centres & Divisions - Dr. B.L. Dhyani, OIC, PME Cell
	1:00 pm	Lunch Break
	2:00 pm	Presentation on Foreign Visits by the following Scientists 10 minutes will be given to each presentation - Dr. P.K. Mishra, Director - Dr. O.P. Chaturvedi, Head, Plant Science Division - Dr. D.R. Sena, Pr. Scientist (Engg.) - Dr. D. Mandal, Sr. Scientist (Soil Science) - Dr. Rajesh Kaushal, Sr. Scientist (Forestry) - Dr. B.K. Rao, Sr. Scientist (Engg.) - Dr. H. Biswas, Sr. Scientist (Soil Science) - Dr. Gopal Kumar, Scientist (Soil Science)
	3:30 pm	Tea Break
	3:45 pm	Presentation on the status of Hydrological Instruments at Headquarters and Research Centres - Dr. P.R. Ojasvi, Pr. Scientist (Engg.)
	4:00 pm	Presentation of Watershed Planning Software & DBMS (PME) Software - Dr. Pankaj Panwar, Sr. Scientist & Ms. Chayna Jana, Scientist
	4:15 pm	Presentation & Discussion on TSP - Dr. Charan Singh, I/c Head, HRD&SS Division
	4:30 pm	Presentation & Discussion on ToT - Dr. Bankey Bihari, Pr. Scientist (Agri. Extension)
	4:45 pm	Discussion on Data collection, reporting and upkeeping at the Institute as desired by the ICAR
5:00 pm	Any other presentation with the permission of Chairman	
5:30 pm	Plenary Session, Concluding Remarks and Recommendations by the Chairman	
6:00 pm	Vote of Thanks - Member Secretary, IRC	

(Note: Sl.No. of the projects is as per IRC meeting proceedings 2013)

IMPORTANT GUIDELINES FOR PRESENTATION:

1. Projects concluded in 2013-14 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 2013-14 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 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 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 modification.
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). The final comment(s) as approved by the Competent Authority during the IRC will be recorded in the IRC proceedings.

All the presentations were completed as per agenda of IRC.

RECOMMENDATIONS OF RAC – 2014

1. Information on runoff and soil loss under various landuses in different AER/ACR and suggestive soil-water conservation measures may be compiled for effective watershed management.
2. Enhancing cropping intensity through double cropping / intercropping in ravine affected and ravine land.
3. Study of root dynamics of different crops and trees including agroforestry spp. w.r. to its soil binding properties and water retention capability to reduce soil loss and runoff.
4. Exploring natural fibre based geo/agro-textiles for controlling landslides, river bank protection, mulching, and other soil conservation works in different AER of the country.
5. Parameters of intensity-duration-frequency (Hornor's' equation) estimated for Indian conditions by Rambabu et.al., (1979) may be revalidated in different AER of the country for refinement.
6. Explore the utility of various hydrological models developed by IITs and other reputed institutes for surface and groundwater studies.

**ACTION TAKEN ON
“SALIENT RECOMMENDATIONS OF IRC MEETING – 2013”**

S.No.	Action Assigned	Action Taken Report
1.	A format may be prepared by Dr. P.R. Ojasvi, Pr. Scientist (Engg.) and sent to all concerned scientists for getting the information for preparing a bulletin from the core project on runoff and erosion prediction models. Dr. P.R. Ojasvi will be the senior author and Dr. R.S. Kurothe, Dr. A.K. Tiwari, Dr. Ambrish Kumar, Dr. V.K. Bhatt and Dr. D.R. Sena will be co-authors of the bulletin. Information on the given format may be submitted by concerned scientists to Dr. P.R. Ojasvi and the bulletin may be published by next IRC meeting. (Action: Dr. P.R. Ojasvi, Dr. R.S. Kurothe, Dr. A.K. Tiwari, Dr. Ambrish Kumar, Dr. V.K. Bhatt and Dr. D.R. Sena)	Format and outline of the bulletin was circulated to all authors and seven out of eleven chapters have been documented. Compilation and editing of bulletin are in progress.
2.	Rainfall data set of Vasad Centre may be provided by Dr. N.M. Alam to Dr. D.R. Sena for its analysis. Analysis results may be provided to Er. K.P. Tripathi, PI, NPCC project for correlating the production data with rainfall and conservation measures by July 15, 2013. Findings of NPCC project may be circulated to all scientists by Er. K.P. Tripathi and all the data be handed over to Dr. D.R. Sena before his retirement. (Action: Dr. D.R. Sena, Er. K.P. Tripathi and Dr. N.M. Alam)	Rainfall data set has been provided by Dr. N.M. Alam to Dr. D.R. Sena. The analysis and other works have been accomplished, however, detailed report has not been submitted.
3.	Data format of modelling developed for collection of data in different projects may be sent by Dr. D.R. Sena, Sr. Scientist (Engg.) to all Heads of Research Centres and Divisions by June 30, 2013. (Action: Dr. D.R. Sena)	The assignment has been accomplished by Dr. D.R. Sena, however, detailed report has not been submitted.
4.	First draft regarding information on ITKs collected and compiled by Er. K.P. Tripathi, Pr. Scientist (Engg.) may be submitted by July 10, 2013 positively. (Action: Er. K.P. Tripathi)	The bulletin on ITK has been published.
5.	Report on all data computed and analyzed from Chandigarh and other Research Centres on Soil Threat Index by Dr.(Ms.) Sharmistha Pal, Scientist, should be submitted by June 30, 2013 positively. (Action: Dr.(Ms.) Sharmistha Pal)	The assigned report has been submitted by Dr.(Ms.) Sharmistha Pal.
6.	Two units of field level sediment sampler may be got fabricated by Dr. Gopal Kumar, Scientist and tested at Vasad Centre and Headquarters, Dehradun. Funds for this activity will be provided by the Institute. (Action: Dr. Gopal Kumar)	The sediment sampler was fabricated and tested at Vasad Centre. However, testing at Headquarters, Dehradun is yet to be done.
7.	Final report on the criteria for identification of landslide prone areas and cumulative index for identifying vulnerability of landslide prone areas may be submitted by Dr. G.P. Juyal, Head, H&E Division by June 30, 2013 positively. The report may include the reasons for not developing a common report for different hilly ecosystems i.e. Himalayan, Shiwalik and Nilgiris hills. (Action: Dr. G.P. Juyal)	The required final report has been submitted by Dr. G.P. Juyal.

8.	The technologies developed by the Institute in collaboration with SAUs, KVKs and other line departments should be disseminated for making production systems resilient to climate change. Dr. Bankey Bihari, Pr. Scientist (Ag. Extn.) may co-ordinate the action taken in this regard by getting reports from all Research Centres and Divisions, and a compiled report may be submitted by July 31, 2013 positively. (Action: Dr. Bankey Bihari)	The compiled report has been submitted by Dr. Bankey Bihari, Pr. Scientist on 20 th June, 2014.
9.	A common terminology and methodology of measuring carbon sequestration, carbon stock and carbon budgeting should be finalized by the constituted team headed by Dr. B.N. Ghosh in association with Dr. Rajive Singh, Dr. O.P. Chaturvedi and Dr. A. Raizada, and sent to all scientists by June 15, 2013 for comments and suggestions. Final report on methodology may be sent to all Heads of Research Centres and Divisions by June 30, 2013, which will be followed by all scientists. (Action: Dr. B.N. Ghosh, Dr. Rajive Singh, Dr. O.P. Chaturvedi and Dr. A. Raizada and all scientists)	The assignment completed.
10.	Rainfall chart of all previous years available at Research Centres may be sent by all Heads to Dr. N.M. Alam, Scientist (Ag. Stat.). Initial analysis of rainfall chart may be done by Dr. N.M. Alam and submitted by August, 2013. (Action : Dr. N.M. Alam & All Heads of Res. Centres)	Analysis of rainfall chart is in progress.
11.	Capacity building of other scientists from Agra and Kota Centres may be taken up by Dr. Gopal Kumar, Scientist (Soils), Research Centre, Vasad for learning the methodologies of RS/GIS used for Mahi ravines under a concluded project. (Action: Dr. Gopal Kumar)	The methodologies of RS/GIS used for Mahi ravines were discussed in the workshop conducted at Kota Centre.
12.	A technology brochure may be published with all options for economical use / establishment of terrace risers under concluded project entitled “Technique for establishment of tea on terrace risers in the Nilgiris”. Liaising with state departments, KVKs and line departments may be done for upscaling the developed technologies. Collection of yield data may be continued. Economics may be worked out before submitting final recommendations by June, 2013. (Action: Dr. O.P.S. Khola)	Collection of yield data is continued. Liaising for upscaling the technology is being done with Joint Director (Horticulture) during monthly zonal meetings and with UPASI, and KVK during SAC Meeting. The KVK is taking up as a demonstration. The technology brochure is already published.
13.	A bulletin may be published on results obtained from concluded project entitled “Fuelwood and fodder production from densified plantations on old riverbed lands”. Economics may also be worked out and included in the bulletin. (Action: Dr. J. Jayaprakash)	The bulletin on this project has been published by Dr. A. Raizada et al.
14.	Information on different crops may be synthesized by Dr. P.P. Adhikary, Scientist (Soils) under concluded project entitled “Analysis of climatic data for evolving drought indices towards planning sustainable cropping systems in Bundelkhand”. Number of crops may be reduced for demonstration of the results under the ToT programme. (Action: Dr. P.P. Adhikary)	The information on different crops has been synthesized and crop calendar for the prominent crops has been prepared by Dr. P.P. Adhikary.

15.	Economic analysis, water use efficiency and water saving may be calculated by Er. S. Patra, Scientist (Engg.) under concluded project entitled “Integration of low cost water harvesting and micro irrigation for resource conservation and sustainable vegetable production in terraced lands in North-Western Himalayas”. It may also be demonstrated in technology park. (Action: Er. S. Patra)	Economic analysis with respect to water harvesting structure and low cost drip has been calculated. Water use efficiency and water saving by adoption of integrated system in tomato cultivation has been calculated. A demonstration has also been established in technology park at Selakui.
16.	As the project entitled “Participatory dissemination and assessment of land and water management technologies for livelihood security in rainfed areas of north-western Himalayas” under TDET scheme, Dept. of Land Resources, MoRD carried out at Headquarters, Dehradun has been extended by the funding agency (TDET-MoRD) for one more year vide the letter No. 5-2/2006-TE dated 14.06.2013, hence, the project will conclude in March, 2014. Findings of the project may be published for which the write-ups may be submitted by Dr. Charan Singh and Dr. Bankey Bihari to Dr. B.L. Dhyani by June, 2013. All the scientists associated with this project must work hard to bring out good publication out of it so that the good work is properly documented. (Action: Dr. B.L. Dhyani, Dr. Charan Singh and Dr. Bankey Bihari)	The project was carried out till May, 2014 as per approval of the funding agency (TDET-MoRD). Two bulletins (one each in English and Hindi) and soil health cards have been published out of the findings of the project.
17.	Cumulative index of constraints may be developed under concluded core project entitled “Capacity building programmes for watershed management in India: Assessment and impact analysis”. Correlation between variables and policy prescriptions may also be estimated and reported. (Action: Dr. Bankey Bihari)	The assigned report has been submitted by Dr. Bankey Bihari, Pr. Scientist on 20 th June, 2014.
18.	Complete Annual Report of Research Centres/Divisions should be submitted by the concerned Heads as per the latest Annual Report format giving all captions (tables, photos and figures) in English and Hindi by February 28, 2014 positively. Executive summary of research projects should also be submitted in English and Hindi by all Heads to print a bilingual Annual Report, as desired by ICAR. The list of publications from a Centre / Division must have latest NAAS rating of each research paper included in the list. (Action: All Heads of Research Centres / Divisions)	The information for Annual Report was submitted by Heads of Research Centres and Divisions, and the Institute Annual Report has been published in time.
19.	A hard copy of the published papers during the year be submitted to the PME Cell alongwith latest NAAS Rating every year. In case, there is more than one author from our Institute, only first author should submit the paper. (Action: All Heads of Research Centres and Divisions)	Status of non-submission of hard copy of published paper (year wise) is as follows: <ul style="list-style-type: none"> • For 2012 – It has not been submitted by Research Centres Agra, Bellary, Koraput, Kota & Udhagamandalam • For 2013 – It has not been submitted by Research Centres Datia, Koraput & Kota and HRD&SS Division.

<p>20.</p>	<p>If Leader of a project proceeds on leave for more than six months at a stretch, he/she may join the project after returning from the leave as Project Leader on submission of formal request to the Director, who shall approve depending upon merit of the case. During the leave period, the First Associate of the project or a Scientist nominated by the Head of the Centre/Division (with approval of the Director) will work as Leader of the Project and name of the person (Project Leader) on leave will be deleted from list of the project team for the year(s) during which the leave period falls for more than six months at a stretch. (Action: All Scientists / All Heads of Research Centres and Divisions)</p>	<p>The action point has been noted for compliance by all Heads of Research Centres and Divisions, as and when needed in future.</p>
<p>21.</p>	<p>On joining of a scientist during the year at a Centre or Division, and Head of the Centre / Division feels that his association to a particular project will help in achieving its objectives significantly, the same may be discussed at local level and proper proposal to this effect may be submitted to the Director through OIC, PME Cell so that interest of the scientist may be protected. (Action: All Heads of Research Centres/Divisions)</p>	<p>The action point has been noted by all Heads of Research Centres and Divisions, and action (if any) has been taken accordingly, which should be presented in the IRC meeting for approval of the House.</p>
<p>22.</p>	<p>Monthly Cabinet Reports should be submitted by all Heads highlighting salient achievements of research projects for onward transmission to the Council latest by 15th of every month. The report must be regular, proper, reportable and in quantifiable manner as per ‘Time Frame Proforma’ for the report circulated during IRC meeting, 2013. (Action: All Heads of Res. Centres /Divisions)</p>	<p>Research achievements of the projects are not submitted by Heads in reportable and quantifiable manner, which should be taken care by all Heads of Research Centres and Divisions.</p>
<p>23.</p>	<p>Information for Results Framework Document (RFD) progress must be submitted regularly by all Heads of Research Centres and Divisions. Documentary proof should also be submitted in proper shape in the format already circulated in “Time Frame Performa”. (Action: All Heads of Research Centres/ Divisions)</p>	<p>RFD is submitted by all Heads of Research Centres and Division in a proper shape with documentary proof.</p>
<p>24.</p>	<p>All the Research Progress reports from the year 2013-14 is to be submitted in RPP format only. While submitting RPPs by leader of a project, a certificate should be submitted by the leader and countersigned by the concerned Head that “Raw data from the project have been collected meticulously and recorded in the data register in the custody of the leader of project”. (Action: All Scientist/All Heads of Research Centres and Divisions)</p>	<p>RPPs (2013-14) have been submitted only by Bellary, Chandigarh and Udhagamandalam Centres. Certificate regarding raw data has not been submitted by any Centre.</p>
<p>25.</p>	<p>Precise write-up and recommendations emerging out from projects concluded in 2012-13 should invariably be submitted by the leader of projects through their respective Heads by June 30, 2013 positively. (Action: Leader of projects concluded in 2012-13 and All Heads of Centres/Divisions)</p>	<p>Precise write-up and recommendations emerging out from the projects concluded in 2012-13 have not been submitted by Project Leaders through Heads of Res. Centres/Divisions. Kota Centre has submitted three pages report for the core project entitled ‘Capacity building programme’, however, only half page (one para) write-up and recommendation of project are required.</p>

26.	<p>Each scientist of Headquarters and Research Centres may be allowed to attend only two conferences / workshops etc. in a year, preferably by train for which prior approval of the Director may be taken by the senior author on the recently developed proforma for presentation of paper. Case of attending more than two conferences in a year by a scientist will be considered only on merit by the Director.</p> <p>(Action: All Scientists / All Heads of Research Centres and Divisions)</p>	<p>The action point has been noted for compliance by all scientists / Heads of Research Centres and Divisions and is being followed.</p>
27.	<p>Gauging devices should be maintained at all Research Centres for which the name of Engineering Scientist / Technical Officer (Engg.) responsible for monitoring may be identified and communicated to the Head, H&E Division for record under intimation to the Director.</p> <p>(Action: All Heads of Research Centres and Head, H&E Division)</p>	<p>Research Centres Datia, Koraput, Kota & Udhagamandalam have identified the name of Scientists / Technical officers responsible for monitoring the gauging devices at their Centres. Gauging devices of other Centres are being maintained by concerned Scientists and Technical Officers. Action regarding maintaining the record of gauging devices has been taken accordingly.</p>
28.	<p>For all the projects recording runoff and soil loss, an attempt should be made to calculate the nutrient (primary and secondary) loss alongwith carbon and clay loss. The nutrient status in soil sample may also be calculated.</p> <p>(Action: All Scientists / All Heads of Research Centres and Divisions)</p>	<p>The action point has been noted for compliance by all Heads of Research Centres and Divisions and attempt will be made to calculate wherever possible.</p>
29.	<p>It is mandatory to attend the IRC meeting of the Institute by all scientists of Research Centres and Divisions. In case of absence by any scientist due to any specific reason, a written justification through the concerned Head must be submitted to the Director prior to IRC meeting. Otherwise, disciplinary action will be taken and reflected in ACR of the scientist. (Action: All Scientists / Heads of Research Centres/Divisions)</p>	<p>Instruction has been issued to the scientists by all Heads of Research Centres and Divisions for attending the IRC meeting.</p>
30.	<p>A certificate should be submitted by all Heads of Research Centres/Divisions prior to IRC meeting that “Local IRC has been organized at the Research Centre/Division level and all the projects have been presented before Scientists and Technical Officers and all the concerned Salient Recommendations of IRC have been discussed”.</p> <p>(Action: All Heads of Research Centres and Divisions)</p>	<p>A certificate for organizing local IRC at the Research Centre / Division level before IRC meeting has been submitted only by Research Centres, Chandigarh, Datia and Divisions of H&E and SS&A.</p>

SALIENT RECOMMENDATIONS OF IRC MEETING – 2014

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)
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)
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)
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)
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)
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)
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)
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)
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)

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)
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)
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)
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.))
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)
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)
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)
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)

NEW 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.	NRMACSWCRTI CIL201400100081	Mapping and characterization of Jhola land areas in Koraput districts.	J.P. Dash P.P. Adhikary M. Madhu U.K. Maurya	Koraput	2014-15	2016-17	Koraput districts	To be continued (New Project)
Comments: Jhola land may be defined scientifically and presented in the next IRC meeting. Geological characteristics may also be studied. (Action: Dr.(Ms.) J.P. Dash)								
2.	NRMACSWCRTI CIL201300400078	Developing methodological framework for delineating and characterization of Chambal and Yamuna ravines.	G.L. Meena R.K. Singh R.B. Meena K.K. Sharma S.K. Dubey	Kota Agra	2013-14	2015-16	Chambal Valley in Kota region Riparian area of Yamuna river	To be continued
Comments: Progress is very good. MoU may be signed among the Directors of CSWCRTI, NBSSLUP and NRSC by July 31, 2014 through the DDG (NRM), ICAR, New Delhi. Software available at Datia Centre may be transferred to AKMU, Dehradun. Necessary arrangements may be made by OIC, AKMU for it's uses by all scientists of the Institute. (Action: Dr. G.L. Meena/Head of Datia Centre/OIC, AKMU)								

1.2 SOIL EROSION PROCESS MODELING AND CLIMATE CHANGE STUDIES

3.	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	2014-15	Research Farm	To be concluded (BARC Project)
Comments: Progress is very good.								
4.	NRMACSWCRTI SOP20130010075	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	2014-15	Headquarters	To be concluded (Collaborative project on Indo-Austria Scientific-Technological Co-operation)
Comments: Progress is very good. Value of factor for Selakui (Indian condition) may be estimated using facilities of VPKAS, Almora. (Action: Dr. P.K. Mishra)								

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
5.	NRMACSWCRTI CIL200800100014	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	Agra	2009-10			
			H. Biswas S.L. Patil	Bellary	2009-10			
			R.P. Yadav Lekh Chand 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			
<p>Comments: Progress is very good. Data of Bellary Centre should be re-checked. Uniform pattern of data/result should be maintained and presented. Project is extended for three years till 2017-18. Dr. Lekh Chand will replace Dr. Sathiya K. as first associate at Chandigarh. Names of Ms. Monalisha Pramanik and Mr. Prabhat Kumar are included as second and third associate, respectively at Datia. Name of Dr. B.L. Mina is included as second associate at Kota. (Action: Dr. D. Mandal and leaders at all Research Centres)</p>								
6.	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	2015-16	Research Farm	To be continued
<p>Comments: Progress is very good. Dr. Lekh Chand will replace Dr. Rajeev Ranjan as leader of project. (Action: Dr. Lekh Chand)</p>								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
7.	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 (New Project)
8.	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 continued
Comments: Progress is very good. Potential soil erosion already calculated may be correlated with soil organic carbon stock. Name of Dr.(Ms.) V.K. Thilagam is included as third associate. (Action: Dr. K. Rajan)								

P-2 CONSERVATION MEASURES FOR SUSTAINABLE PRODUCTION SYSTEM

2.1 RESOURCE CONSERVATION MEASURES FOR ARABLE LANDS

9.	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	Soil Science & Agronomy, Dehradun	2008-09	2015-16	Research Farm	To be continued
Comments: Progress is very good. Economics of treatments may be re-checked and reported before next IRC with comparison. (Action: Dr. B.N. Ghosh)								
10.	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	2014-15	Research Farm	To be concluded
Comments: Progress is very good. Economics of the treatments may be worked out as the cost of mulching is very high. As the objectives are to be achieved, the project may be concluded in 2014-15. Name of Dr. N.K. Sharma is included as leader of the project. (Action: Dr. N.K. Sharma)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
11.	NRMACSWCRTI CIL200500100005	Evaluating productivity potential of bhimal (<i>Grewia optiva</i>) along with field crops.	Harsh Mehta D. Mandal S.S. Shrimali Lekh Chand	Plant Science, Dehradun	2005-06	2015-16	Almas, Ranigaon, Sabhawala & Selakui villages	To be continued
Comments: Progress is very good. GIS map showing agro-climate condition may be developed. Provenances may be registered with NBPGR association. Economics may be worked out. Technology may be transferred to the farmers' field under ToT programme. Dr. D. Mandal will replace Dr. Rajeev Ranjan as first associate. Names of Er. S.S. Shrimali and Dr. Lekh Chand are included as second and third associate, respectively. (Action: Dr. Harsh Mehta)								
12.	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 continued
Comments: Progress is very good.								
13.	NRMACSWCRTI CIL201100700053	Performance of Tamarind near S&WC structures with different mulches in vertisols of SAT region.	A. Raizada S.K. Srivastava H. Biswas	Bellary	2011-12	2015-16	Research Farm	To be continued
Comments: Progress is good.								
14.	NRMACSWCRTI CIL201300200076	Evaluating the effect of organic amendments on resource conservation and productivity of rainfed semi-arid vertisols.	H. Biswas S.L. Patil Suresh Kumar	Bellary	2013-14	2017-18	Research Farm	To be continued
Comment: Progress is good. Nutrient content of being used Bio-char may be analyzed. (Action: Dr. H. Biswas)								
15.	NRMACSWCRTI CIL200900200031	Conservation tillage for resource management and higher production from Shiwaliks.	R.P. Yadav Lekh Chand Pawan Sharma S.L. Arya	Chandigarh	2009-10	2015-16	Research Farm	To be continued
Comments: Progress is very good. All efficiencies may be calculated. Economics may be worked out. Dr. Lekh Chand will replace Dr. Sathiya K. as first associate. Name of Dr.(Ms.) S.L. Arya is included as third associate. (Action: Dr. R.P. Yadav)								
16.	NRMACSWCRTI CIL201100800054	Adaptation potential and productivity of organic vis-à-vis conventional farming system under rainfed conditions of Shiwaliks region.	Pawan Sharma Lekh Chand R.P. Yadav	Chandigarh	2011-12	2015-16	Research Farm	To be continued
Comments: Progress is very good. Dr. Lekh Chand will replace Dr. Sathiya K. as first associate (Action: Dr. Pawan Sharma)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
17.	NRMACSWCRTI CIL201000400040	<i>In situ</i> moisture conservation practices under aonla based agro-forestry system for sustainable production in red soils of Bundelkhand.	Dev Narayan Prabhat Kumar	Datia	2010-11	2018-19	Research Farm	To be continued
Comments: Progress is very good. Cost for maintaining V-shaped micro-catchment may be calculated. Economics may be re-checked. The technology may be demonstrated under ToT programme. (Action: Dr. Dev Narayan)								
18.	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	2014-15	Jigna Watershed	To be concluded
Comments: Progress is very good.								
19.	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	2014-15	Dhoti Watershed	To be concluded
Comments: Progress is very good. Name of Dr. B.L. Mina is included as first associate. (Action: Dr. R.K. Singh)								
20.	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 (New Project)
Comments: Objectives may be discussed with the Research Centre of CPRI. (Action: Dr. K. Kannan)								

2.2 RESOURCE CONSERVATION MEASURES FOR NON-ARABLE LANDS

21.	NRMACSWCRTI CIL200600100008	Evaluating the performance and developing techniques for enhancing growth and seed yield of <i>Jatropha curcas</i> in degraded lands of sub-humid Himalayas.	J. Jayaprakash D. Mandal	Plant Science Dehradun	2006-07	2014-15	Research Farm	To be concluded
Comments: Progress is very good. Project may be concluded in 2014-15 continuing with the same treatments till next year. Final result with all data should be presented in the next IRC meeting. (Action: Dr. J. Jayaprakash)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
22.	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 continued
Comments: Progress is very good.								
23.	NRMACSWCRTI CIL200900500034	Evaluation of traditional minor millet based agro-forestry systems under recommended agri-silvicultural 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. Runoff and soil loss data may be re-checked. (Action: Dr. Harsh Mehta)								
24.	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 continued
Comments: Progress is very good. Carbon sequestration and carbon stock may be estimated. (Action: Dr. O.P. Chaturvedi)								
25.	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 continued
Comments: Progress is very good. All efficiencies should be estimated. Mr. A.K. Gupta will replace Dr. Rajeev Ranjan as second associate. (Action: Dr. J.M.S. Tomar)								
26.	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.								
27.	NRMACSWCRTI CIL201101300059	Canopy management in <i>Morus alba</i> for enhancing productivity and resource conservation.	Rajesh Kaushal Ambrish Kumar J. Jayaprakash D. Mandal	Plant Science, Dehradun	2011-12	2016-17	Research Farm	To be continued
Comments: Progress is very good. Carbon sequestration and carbon stock may be estimated. Dr. D. Mandal will replace Dr. Rajeev Ranjan as third associate. (Action: Dr. Rajesh Kaushal)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
28.	NRMACSWCRTI CIL201200200071	Development and characterization of quality planting material of important MPT's for degraded lands of North-West Himalayas.	Harsh Mehta Rajesh Kaushal A.K. Gupta	Plant Science, Dehradun	2012-13	2019-20	Research Farm	To be continued
Comments: Progress is very good. Name of Dr. Raj Kumar is deleted and Dr. Harsh Mehta will be the leader of project. Names of Dr. Rajesh Kaushal and Mr. A.K. Gupta are included as first and second associate, respectively. (Action: Dr. Harsh Mehta)								
29.	NRMACSWCRTI CIL200800700020	Peach based agri-horticulture land use system for degraded Shiwaliks.	Ram Prasad R.P. Yadav S.L. Arya	Chandigarh	2008-09	2015-16	Research Farm	To be continued
Comments: Progress is excellent. Technology may be demonstrated in farmers' field under ToT programme. Name of Dr. Sathiya K. is deleted. (Action: Dr. Ram Prasad)								
30.	NRMACSWCRTI CIL201101400060	Resource budgeting in agro-forestry for livelihood security by applying WANuLICAS 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. Carbon budget may be estimated. (Action: Dr.Pankaj Panwar)								
31.	NRMACSWCRTI CIL201000700043	Evaluation of moisture conservation techniques for sustainable production of Tree Borne Oil Seeds (TBOS) in Bundelkhand.	Prabhat Kumar	Datia	2010-11	2017-18	Research Farm	To be continued
Comments: Progress is very good.								
32.	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	2014-15	Research Farm	To be concluded
Comments: Progress is very good.								
33.	NRMACSWCRTI CIL200600200009	Evaluation of different under utilized fruit species with varying inter-space managements in Chambal ravines.	H.R. Meena A.K. Parandiyal Ashok Kumar G.L. Meena	Kota	2006-07	2015-16	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.	NRMACSWCRTI CIL200800900022	Evaluation of promising oilseed tree species under silvi-pastoral system for rehabilitation of Chambal ravines.	A.K. Parandiyal Ashok Kumar G.L. Meena	Kota	2008-09	2015-16	Research Farm	To be continued
Comments: Progress is very good.								
35.	NRMACSWCRTI CIL201101600062	Evaluation of carbon sequestration potential of different tree based production systems in South-eastern Rajasthan.	A.K. Parandiyal R.K. Singh B.L. Mina	Kota	2011-12	2015-16	Research Farm & Sahabad Range Forest	To be continued
Comments: Progress is very good. Name of Dr. B.L. Mina is included as second associate. (Action: Dr. A.K. Parandiyal)								
36.	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 very good.								

P-3 WATERSHED HYDROLOGY FOR CONSERVATION PLANNING

3.1 HYDROLOGICAL BEHAVIOUR OF LANDUSES AND MANAGEMENT PRACTICES

37.	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. Name of Dr. J. Jayaprakash is included as second associate. (Action: Dr. O.P. Chaturvedi)								
38.	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 continued (Core Project)

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
			K.K. Sharma S.K. Dubey, S. Kala Dileep Kumar	Agra			Garhi Udairaj, Fatehabad	
			V.K. Bhatt Pankaj Panwar Ram Prasad Sharmistha Pal	Chandigarh			Janoli Village, Panchkula	
			Shakir Ali A.K. Parandiyal 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	
<p>Comments: Progress is very good. Uniformity of data collection may be followed. Calibration needs to be done. Name of Dr. Sathiya K. is deleted from Chandigarh. Dr. B.L. Mina will replace Dr. R.K. Singh as second associate at Kota. Name of Dr. Raj Kumar is included as second associate at Vasad. (Action: Dr. J.M. S. Tomar and leaders at other Research Centres)</p>								
39.	NRMACSWCRTI CIL200400200003	Hydrological implication of sequential alternation 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 continued
<p>Comments: Progress is very good.</p>								

3.2 WATER HARVESTING, GROUNDWATER RECHARGE AND MANAGEMENT

40.	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 continued
<p>Comments: Progress is very good. Water use efficiency for the system as a whole may be estimated. (Action: Dr. Ambrish Kumar)</p>								
41.	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 continued
<p>Comments: Progress is very good.</p>								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
42.	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 (New Project)
Comments: Participatory ground water management may also be studied as a case study, if available in the sample. (Action: Mr. Suresh Kumar)								
43.	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 continued
Comments: Progress is very good. A bulletin may be prepared from this project. Name of Dr. Sathiya K. is deleted. (Action: Dr. Pankaj Panwar)								
44.	NRMACSWCRTI CIL201001000046	Estimation of water budget components for predominant land uses of south-eastern Rajasthan for conservation planning.	G.L. Meena R.K. Singh H.R. Meena	Kota	2010-11	2015-16	Research Farm	To be continued
Comments: Progress is very good. Dr. Shakir Ali may assist for analyzing the data. (Action: Dr. G.L. Meena/Dr. Shakir Ali)								
45.	NRMACSWCRTI CIL201101900065	Enhancement in land productivity and livelihood security of small farmers of Nilgiris through multiple use of harvested water.	S. Manivannan O.P.S. Khola K. Rajan	Udhagamandalam	2011-12	2014-15	Research Farm	To be concluded
Comments: Progress is very good.								
46.	NRMACSWCRTI COL201400500085	Development of efficient and innovative blue and green water harvesting techniques for enhancing the land and water productivity of semi-arid districts of Gujarat.	B.K. Rao R.S. Kurothe	Vasad	2014-15	2015-16	Panchmahal and Dahod districts	To be continued (DST Funded) (New Project)
Comments: Project may be conducted on farmer's field. (Action: Dr. B.K. Rao)								

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
47.	NRMACSWCRTI CIL201102300069	Development of a user friendly Decision Support System application for planning of watershed development project.	P.R. Ojasvi P.K. Mishra Charan Singh N.K. Sharma D.V. Singh	Hydrology & Engineering, Dehradun	2011-12	2015-16	Almas, Distt. Tehri Garhwal	To be continued
Comments: Progress is very good. Landslide prone area may be identified and some decision rule may be made.								(Action: Dr. P.R. Ojasvi)

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.

48.	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 (New Project)
Comments: Composition of river bed material and its movement may be studied. Amount of material coming to a particular reach/area may also be studied.								(Action: Er. S.S. Shrimali)
49.	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	2014-15	Research Farm	To be concluded
Comments: Progress is excellent.								
50.	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 continued (National Jute Board, Kolkata)
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
51.	NRMACSWCRTI CIL201102200068	Field evaluation of design of trenches under different agro-climatic regions.	R.S. Kurothe V.C. Pande Gopal Kumar	Vasad	2011-12	2015-16	Research Farm	To be continued (Core Project)
			S. Kala, A.K. Singh R.B. Meena	Agra			Research Farm	
			A.K. Tiwari Pankaj Panwar V.K. Bhatt Sharmistha Pal	Chandigarh			Research Farm	
			Monalisha Pramanik S.P. Tiwari	Datia			Research Farm	
			D.C. Sahoo M. Madhu P.P. Adhikary	Koraput			Research Farm	
			Shakir Ali Ashok Kumar A.K. Parandiyal	Kota			Dhoti Watershed	
			S. Manivanan K. Kannan K. Rajan	Udhagamandalam			Research Farm	
			Comments: Progress is very good. Names of Ms. Monalisha Pramanik and Dr. D.C. Sahoo are included as leader at Datia and Koraput Centres, respectively. (Action: Dr. R.S. Kurothe and leaders at other Research Centres)					
52.	NRMACSWCRTI CIL200801000023	Enhancing productivity of ravine lands by plantation of <i>A. sapota</i> 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. Name of Dr. Raj Kumar is included as leader of project. (Action: Dr. Raj Kumar)								

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

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
53.	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	
			Dev Narayan Prabhat Kumar Rajeev Ranjan	Datia			Jigna Watershed	
			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. Climate resilience aspect of an IFS plan may be highlighted by comparing with the data of control farmer. Names of Dr. D.C. Meena and Dr. Rajeev Ranjan are included as first and second associates at Agra and Datia Centres, respectively. Names of Er.S.K. Srivastava and Dr. Sathiya K. are deleted from Bellary and Chandigarh Centres, respectively.

(Action: Dr. Pradeep Dogra and leaders at Research Centres)

5.2 COMMON PROPERTY RESOURCE MANAGEMENT

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
54.	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	2014-15	Uttarakhand	To be concluded (Core Project)
			S.L. Arya V.K. Bhatt	Chandigarh			Panchkula, Haryana	
			Om Prakash	Datia			Datia district	
			Ashok Kumar Shakir Ali	Kota			Udaipur & Kota district	
			P. Sundarambal	Udhagamandalam			Pudukottai, Sivagangai & Villupuram districts	
			V.C. Pande G.L. Bagdi	Vasad			Ahmedabad & Jamnagar districts	
Comments: Progress is very good. Use of surplus water where supply is more than demand may be suggested. Project is extended for one year till 2014-15. (Action: Dr. Pradeep Dogra and leaders at Research Centres)								

P-6 HUMAN RESOURCE DEVELOPMENT AND TECHNOLOGY TRANSFER

6.2 PARTICIPATORY TECHNOLOGY DISSEMINATION AND ADOPTION

55.	NRMACSWCRTI SIP201300500079	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 S.A. Morade	HRD&SS, Dehradun (Collaborative Project with HARC)	2013- 14	2017-18	Uttarkashi district of Uttarakhand	To be continued
Comments: Progress is very good. After getting funds, the project may be carried out as externally funded project under DST. Name of Mr. S.A. Morade is included as fifth associate. (Action: Dr. D.V. Singh)								

S. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Start	Completion	Location of Project	Remarks
56.	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	2014-15	Navamota, Rebari, Sarnal, Antisar & Vejalpur-Rampura Watersheds	To be concluded (Core Project)
			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. Manivanan D. Dinesh	Udhagamandalam			The Nilgiris, Coimbatore & Erode districts	

Comments: Progress is very good. Name of Dr. D.C. Meena is included as second associate at Agra Centre.

(Action: Dr. G.L. Bagdi and leaders at Research Centres and Headquarters)

PROJECTS CONCLUDED DURING THE YEAR

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	1.1	NRMACSWCRTI CIL201100100047	Impacts of landuse changes on surface hydrology in Doon Valley through remote sensing and GIS approach.	Chayna Jana D. Mandal S.S. Shrimali Raj Kumar	Hydrology & Engineering, Dehradun	2011-12	Headquarters
Comments: Progress is excellent.							
2	1.1	NRMACSWCRTI CIL201100200048	Decision Support System (DSS) for identifying best management practices in erosion risk area.	N.M. Alam D. Mandal S.S. Shrimali Chayna Jana	Soil Science & Agronomy, Dehradun	2011-12	Headquarters
Comments: Progress is very good.							
3	1.1	NRMACSWCRTI CIL201000100037	Landuse analysis by using remote sensing and GIS for resource conservation in shifting cultivated Eastern Ghats region of Orissa.	P.P. Adhikary M. Madhu	Koraput	2010-11	Koraput district
Comments: Progress is very good.							
4*	1.2	NRMACSWCRTI CIL201000200038	Effectiveness of vegetative filter strips in preventing soil and nutrient losses.	B.K. Rao V.C. Pande	Vasad	2010-11	Research Farm
Comments: Progress is very good. Sufficient information and data have been collected to fulfill the objectives. RPP-IV may also be submitted. (Action: Dr. B.K. Rao)							
5*	1.3	NRMACSWCRTI CIL201200100070	Effect of vegetative and mechanical measures on resource conservation in an indigenously developed hydraulic flume.	H. Biswas S.K. Srivastava A. Raizada	Bellary	2012-13	Research Farm
Comments: Progress is good. Continuous failure of grass covers due to shade in the existing flume, the project is discontinued. (Action: Dr. H. Biswas)							
6*	2.1	NRMACSWCRTI CIL200700100010	Yield maximization and resource conservation through organic input management.	B.N. Ghosh N.K. Sharma Pradeep Dogra	Soil Science & Agronomy, Dehradun	2007-08	Research Farm
Comments: Progress is excellent. Objectives achieved and technology may be transferred to be framers' field under ToT programme and RPP-IV may also be submitted. (Action: Dr. B.N. Ghosh)							
7	2.1	NRMACSWCRTI CIL200800300016	Impact of maize based intercropping on resource conservation and productivity.	N.K. Sharma D. Mandal Ambrish Kumar	Soil Science & Agronomy, Dehradun	2008-09	Research Farm
Comments: Progress is very good.							

S. No.	Prog. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Year of Start	Location of Project
8*	2.1	NRMACSWCRTI CIL201100600052	Yield maximization and resource conservation through integrated nutrient management and crop diversification in the ravines of the Yamuna river.	S.K. Dubey Dileep Kumar A.K. Singh	Agra	2011-12	Research Farm
Comments: Progress is good. Data of <i>Kharif</i> (2014) may be included in the results.							(Action: Dr. S.K. Dubey)
9	2.1	NRMACSWCRTI CIL200900300032	Evaluating the different crop combinations for strip cropping in terms of soil, nutrient losses and their productivity in uplands of Eastern Ghats.	P.P. Adhikary	Koraput	2009-10	Research Farm
Comments: Progress is very good.							
10	2.1	NRMACSWCRTI CIL200900400033	Resource conservation by alley cropping in shifting cultivated degraded lands of Eastern Ghats.	P.P. Adhikary	Koraput	2009-10	Research Farm
Comments: Progress is very good. RPP IV may also be submitted.							(Action: Dr. P.P. Adhikary)
11*	2.2	NRMACSWCRTI CIL201101500061	Performance evaluation of different oil yielding grasses in shifting cultivated degraded lands of Orissa.	P.P. Adhikary M. Madhu	Koraput	2011-12	Lachhaputra Ghati Watershed & Research Farm
Comments: Progress is very good. Sufficient meaningful data have been collected to draw the conclusion.							(Action: Dr. P.P. Adhikary)
12	3.1	NRMACSWCRTI CIL201200300072	Standardization of runoff and peak flow parameters for different soil and water conservation structures under Indian condition.	D.R. Sena Chayna Jana	Hydrology & Engineering, Dehradun	2012-13	Headquarters
Comments: Progress is very good.							
13*	3.1	NRMACSWCRTI CIL200801100024	Hydrologic and economic evaluation of Bamboo plantations in gullied lands under major ravines of India.	B.K. Rao Gopal Kumar V.C. Pande A.K. Singh S.K. Dubey S. Kala A.K. Parandiyal Shakir Ali	Vasad Agra Kota	2008-09	Research Farm & Khorwad Village, Anand, Manikpura, Bah, Agra and Research Farm & Kakronda Village, Kota
Comments: Progress is very good. Sufficient information and data have been collected to meet the objectives.							(Action: Dr. B.K. Rao/Dr. A.K. Singh/Dr. A.K. Parandiyal)

S. No.	Prog. No.	Project Code No. (RPP No.)	Title of the Project	Leader and Associates	Centre/Division	Year of Start	Location of Project
14	3.2	NRMACSWCRTI CIL200900600035	Design and development of site specific artificial groundwater recharge filters.	Gopal Kumar B.K. Rao	Vasad	2009-10	Research Centre Laboratory
Comments: Progress is very good.							
15	4.1	NRMACSWCRTI CIL201102100067	Evolving methodology for extraction of River Bed Material (RBM) from rivers for monitoring river morphology.	G.P. Juyal	Hydrology & Engineering, Dehradun	2011-12	Haldwani, Uttarakhand
Comments: Progress is excellent.							
16	4.1	NRMACSWCRTI CIL200500300007	Productive utilization of ravines through introduction of horticulture and improved planting materials.	A.K. Parandiyal H.R. Meena	Kota	2005-06	Research Farm
Comments: Progress is very good. RPP IV may also be submitted. (Action: Dr. A.K. Parandiyal)							
17*	7.3	NRMACSWCRTI SOP201300600080	Ensuring sustainable agricultural development and livelihood security in lower Shiwalik range of Uttarakhand.	Ramanjeet Singh	Soil Science & Agronomy, Dehradun Lead Centre: IARI, New Delhi	2013-14	Haridwar District, Uttarakhand (DST Funded)
Comments: Project is deleted from the listed projects as funding agency has not released the funds. (Action: Dr. Ramanjeet Singh)							

* Projects have been concluded prematurely in view of the ICAR directives in consultation with Project Leaders and Heads of Research Centres/Divisions.

NEW PROJECTS APPROVED DURING IRC MEETING – 2014

S. No.	Prog. No.	S. No. of this proc. With RPP No.	Title of the Project	Centre / Division
1.	1.1	1 (NRMACSWCRTI CIL201400100081)	Mapping and characterization of Jhola land areas in Koraput districts.	Koraput
2.	1.3	7 (NRMACSWCRTI CIL201400200082)	Development and validation of a spatially explicit simulation framework to quantify runoff-erosion-carbon flux at watershed scale.	Hydrology & Engineering, Dehradun
3.	2.1	20 (NRMACSWCRTI CIL201400300083)	Cover crops and reduced tillage for enhancing productivity and soil health in rainfed farming system in the hilly areas.	Udhagamandalam
4.	3.2	42 (NRMACSWCRTI CIL201400400084)	Socio-economic implication and vulnerability of farmers to ground water exploitation in hard rock region of the Deccan.	Bellary
5.	3.2	46 (NRMACSWCRTI COL201400500085)	Development of efficient and innovative blue and green water harvesting techniques for enhancing the land and water productivity of semi-arid districts of Gujarat. (DST Funded)	Vasad
6.	4.1	48 (NRMACSWCRTI CIL201400600086)	Assessment of impact of extraction of RBM (River bed material) on physiography of stream flow courses of Himalayan foot hill streams.	Hydrology & Engineering, Dehradun

STATUS OF NUMBER OF PROJECTS

No. of projects in 2013-14	Projects concluded in 2013-14	New projects added in 2014-15	Total no. of projects in 2014-15
A	B	C	D = A-B+C
67	17	06	56

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	08	28	11	05	02	02	56

OBSERVATIONAL TRIALS APPROVED FOR 2014-15

S. No.	Title of project	Leader & Associates	Centre / Division
1.	Development and rejuvenation of natural springs through soil and water conservation measures.	U.K. Maurya Ambrish Kumar	SS&A, Dehradun
Comments: MoU may be signed with Wadia Institute of Himalayan Geology, Dehradun. The study may be conducted as an Observation Trial for one year for one spring only and presented in the next IRC meeting. (Action: Dr. U.K. Maurya)			
2.	Evolution of criteria and techniques for classification of fisheries-sensitive watershed for conservation and production management.	M. Muruganandam S. Patra, D. Mandal Chayna Jana	H&E, Dehradun
Comments: Literature may be reviewed and activity, methodology and work plan may be revised. The study may be conducted as an Observation Trial for one year and presented in the next IRC meeting. (Action: Dr. M. Muruganandam)			
3.	Evaluation of low head gravity fed partial root zone drying micro-irrigation for vegetable production on terraced lands.	S. Patra A.C. Rathore D. Mandal	H&E, Dehradun
Comments: Project may be developed under technology park component. The study may be conducted as an Observation Trial for one year and presented in the next IRC meeting. (Action: Er. S. Patra)			
4.	Application of integrated spatial science tools for planning a soil erosion linked future landscape regime under changing climate scenario in Dehradun district, Uttarakhand.	U. Mandal Chayna Jana D.R. Sena	H&E, Dehradun
Comments: The study may be conducted as an Observation Trial for one year and presented in the next IRC meeting. (Action: Er. U. Mandal)			
5.	Design and evaluation of HDPE sheet embedded gabion checkdams for water harvesting in north-west Himalayas.	Ambrish Kumar Rajesh Kaushal	HRD&SS, Dehradun
Comments: Instead of stone, pine needle cushion may be used. Study may be conducted as an Observational Trial for one more year and presented in the next IRC meeting. (Action: Dr. Ambrish Kumar)			
6.	Phyto-rehabilitation of saline-sodic Vertisols through <i>Prosopis juliflora</i> based silvipastoral system.	M.N. Ramesha H. Biswas, A. Raizada	Bellary
Comments: The study may be conducted as an Observation Trial for one year taking the plant of local variety and also graft from CAZRI, Jodhpur and comparison of results may be presented in the next IRC meeting. (Action: Dr. M.N. Ramesha)			
7.	Impact of different land uses on nutrient enrichment in surface water resources of Nilgiris.	V. K. Thilagam S. Manivannan K. Rajan, D. Dinesh O.P.S. Khola	Udhagamandalam
Comments: Water bodies having surface water and different land uses may be selected. The study may be conducted as an Observation Trial for one year and presented in the next IRC meeting. (Action: Dr. V.K. Thilagam)			
8.	Determining erosion rates using tree based indicators-quick and cost effective methods for estimating erosion.	Raj Kumar Gopal Kumar V.C. Pande, B.K. Rao	Vasad
Comments: The study may be conducted as an Observation Trial for one year and presented in the next IRC meeting. (Action: Dr. Raj Kumar)			
9.	High value forage grass filters for resource conservation and enhancing production in crop fields.	B.K. Rao Gopal Kumar V.C. Pande	Vasad
Comments: The study may be conducted as an Observation Trial for one year and presented in the next IRC meeting. (Action: Dr. B.K. Rao)			

New Project Proposals Submitted for Consideration in the RAC/IRC Meetings -2014

New Project Proposals Agreed by the RAC

S. No.	Title of Project	Leader & Associate	Duration	Location of Project	Remarks of RAC	Remarks of IRC
AGRA						
1.	Influence of resource conservation practices on different cropping system productivity in the Yamuna ravines.	Dileep Kumar K.K. Sharma R.B. Meena D.C. Meena	2014-15 to 2016-17	Research farm	<ul style="list-style-type: none"> • Define minimum tillage • Extensive reviews on zero-tillage related to the region needs to be presented in the IRC-2014. • Nutrient budgeting and weed dynamics needs to be included. <p style="text-align: right;">Agreed</p>	Not Approved by the IRC and the project may be recasted after discussing with Kota Centre for preparing a combined project.
2.	Economic implications of soil and water conservation technologies for sustainable watershed management and crop production in Yamuna ravines of Uttar Pradesh.	D.C. Meena S.K. Dubey A.K. Singh R.B. Meena	2014-15 to 2016-17	Watersheds in Yamuna ravines	<ul style="list-style-type: none"> • Extensive review is needed on this topic. • Select 5-6 technologies each for ravine affected and reclaimed lands. • Test selected technologies on the farmers' field <p style="text-align: right;">Agreed with modified proposal</p>	Not Approved by the IRC and the project may be modified and recasted for getting some concrete output of project.
BELLARY						
3.	Phyto-rehabilitation of saline-sodic Vertisols through <i>Prosopis juliflora</i> based silvipastoral system.	M.N. Ramesha H. Biswas A. Raizada	2014-15 to 2023-24	Research farm	Agreed	Approved as an Observational Trial for the year 2014-15.
4.	Socio-Economic Implications and Vulnerability of Farmers to Groundwater Exploitation in Hard Rock Region of the Deccan.	Suresh Kumar A. Raizada	2014-15 to 2016-17	Three districts each from Andhra Pradesh & Karnataka	Select suitable number of open wells uniformly distributed in the study area and collect data on depth to water table from the wells or collects such data from CGWB. Agreed	Approved by the IRC and listed at S. No. 42 of this proceedings.
KORAPUT						
5.	Mapping and characterization of jhola land areas in Koraput district.	J.P. Dash P.P. Adhikary M. Madhu	2014-15 to 2015-16	Koraput district	Agreed	Approved by the IRC and listed at S. No. 1 of this proceedings.

UDHAGAMADALAM						
6.	Cover crops and conservation tillage for enhancing productivity and soil health in rainfed farming system in the hilly areas.	K. Kannan D. Dinesh	2014-15 to 2017-18	Research farm	<ul style="list-style-type: none"> • Possibility of Potato crop may be explored under Conservation Agriculture • Observation on Runoff & soil loss needs to be included. <p style="text-align: right;">Agreed</p>	Approved by the IRC and listed at S. No. 20 of this proceedings.
7.	Impact of different land uses on nutrient enrichment in surface water resources of Nilgiris.	V. K. Thilagam K. Rajan S. Manivannan	2014-15 to 2016-17	The Nilgiris	Observation trial may be undertaken at Research Farm, Udhagamandalam Agreed as an observational trial	Approved as an Observational Trial for the year 2014-15.
VASAD						
8.	Determining erosion rates using tree based indicators-quick and cost effective methods for estimating erosion.	Raj Kumar Gopal Kumar V.C. Pande B.K. Rao	2014-15 to 2016-17	Vadodra & Anand districts	Agreed as an observational trial	Approved as an Observational Trial for the year 2014-15.
H&E DIVISION						
9.	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	2014-15 to 2017-18	Rivers of Uttarakhand	Include one more objective - 'Standardize the procedure for extraction of RBM from rivers in Himalayan Foothills and suggest rehabilitation measures in RBM extracted areas'. Agreed	Approved by the IRC and listed at S. No. 48 of this proceedings.
10.	Development and validation of a spatially explicit simulation framework to quantify runoff-erosion-carbon flux on watershed scale in different agro-ecological regions of India.	S. Patra P.K. Mishra D. Mandal P.R. Ojasvi Rajesh Kaushal Chyana Jana N.M. Alam	2014-15 to 2019-20	Dehradun & its Research Centres	Explain clearly how soil respiration will be ascertained. Agreed	Approved by the IRC and listed at S. No. 7 of this proceedings.
11.	Evaluation of low head gravity fed partial root zone drying (PRD) micro-irrigation for vegetable production on terraced lands.	S. Patra A.C. Rathore D. Mandal	2014-15 to 2016-17	Research farm	Specific review on this topic needs to be collected Agreed as an observation trial	Approved as an Observational Trial for the year 2014-15.

12.	Application of integrated spatial science tools for planning a soil erosion linked future landscape regime under changing climate scenario in Dehradun district, Uttarakhand.	U. Mandal Chayna Jana D.R. Sena	2014-15 to 2017-18	Dehradun district	Agreed	Approved as an Observational Trial for the year 2014-15.
SS&A DIVISION						
13.	Development and rejuvenation of natural springs through soil and water conservation measures.	U.K. Maurya Ambrish Kumar	2014-15 to 2018-19	Mid Himalayas in Garhwal region	Agreed as an observation trail	Approved as an Observational Trial for the year 2014-15.

New Project Proposals Not Agreed by the RAC

Sl. No.	Title of Project	Leader & Associate	Centre/ Division	Remarks of RAC	Remarks of IRC
1.	Evaluation of <i>Salvadora persica</i> for rehabilitation of salt affected Vertisols in semiarid tropics of south India.	M.N. Ramesha H. Biswas	Bellary	Extensive Reviews needs to be collected, and prepare a status paper on the topic. Not Agreed	Not considered by the IRC due to not agreed by the RAC.
2.	Planting system Effects on Runoff, Soil loss and productivity and Resource use Efficiency of Potato in the southern hilly ecosystem.	O.P.S Khola S. Manivannan D. Dinesh	Udhagamandalam	May be merged in the agreed project listed at Sl. No. 6 Not Agreed	Not considered by the IRC due to not agreed by the RAC.
3.	Effect of Agrochemicals and Land Management Practices on Soil and Water Quality in the Nilgiris.	D.Dinesh K. Rajan K. Kannan	Udhagamandalam	May be applied for funding from outside agencies Not Agreed	Not considered by the IRC due to not agreed by the RAC.
4.	Evaluation of vermicompost through different weed biomass for productivity enhancement and resource conservation in maize – wheat cropping system.	Lekh Chand N.K. Sharma	SS&A, Dehradun	Not Agreed	Not considered by the IRC due to not agreed by the RAC.
5.	Crop residue management for climate resilient resource conservation agriculture in small farm holdings of north-western Himalayan region of India.	Raman Jeet Singh B.N. Ghosh D.R. Sena	SS&A, Dehradun	<ul style="list-style-type: none"> • Clarify the difference between PDR and deficit irrigation • May be considered under Conservation Agriculture platform Not Agreed	Not considered by the IRC due to not agreed by the RAC.
6.	Evaluation of tillage based agro-geo-textiles for resource conservation and yield simulation of maize based cropping systems.	Raman Jeet Singh B.N. Ghosh N.M. Alam	SS&A, Dehradun	Clarify Agro-geo – textile Not Agreed	Not considered by the IRC due to not agreed by the RAC.

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

S. No.	DIVISION / CENTRE	SL. NO. OF ON-GOING PROJECTS	TOTAL
1.	Dehradun		
	➤ Plant Science	11, 12, 21, 22, 23, 24, 25, 26, 27, 28, 37, 38	12
	➤ Soil Science & Agronomy	3, 5, 6, 9, 10	05
	➤ Hydrology & Engineering	4, 7, 47, 48	04
	➤ HRD&SS	40, 55, 56	03
	➤ PME Cell	53, 54	02
2.	Agra	2, 5, 38, 41, 51, 53, 56	07
3.	Bellary	5, 13, 14, 42, 53, 56	06
4.	Chandigarh	5, 15, 16, 29, 30, 38, 43, 51, 53, 54, 56	11
5.	Datia	5, 17, 18, 31, 51, 53, 54, 56	08
6.	Koraput	1, 5, 32, 51, 53	05
7.	Kota	2, 5, 19, 33, 34, 35, 38, 44, 49, 51, 53, 54, 56	13
8.	Udhagamandalam	5, 8, 20, 36, 38, 45, 50, 51, 53, 54, 56	11
9.	Vasad	5, 38, 39, 46, 51, 52, 53, 54, 56	09
		TOTAL	96

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							
	➤ Plant Science	-	10	2	-	-	-	12
	➤ Soil Science & Agronomy	3	2	-	-	-	-	05
	➤ Hydrology & Engineering	2	-	1	1	-	-	04
	➤ HRD&SS	-	-	1	-	-	2	03
	➤ PME Cell	-	-	-	-	2	-	02
2.	Agra	2	-	2	1	1	1	07
3.	Bellary	1	2	1	-	1	1	06
4.	Chandigarh	1	4	2	1	2	1	11
5.	Datia	1	3	-	1	2	1	08
6.	Koraput	2	1	-	1	1	-	05
7.	Kota	2	4	2	2	2	1	13
8.	Udhagamandalam	2	2	2	2	2	1	11
9.	Vasad	1	-	3	2	2	1	09
	TOTAL	17	28	16	11	15	09	96

NUMBER OF PROJECTS WITH INDIVIDUAL SCIENTIST

The number of projects with each individual scientist of the Institute, after the IRC Meeting of 2014 is as follows:

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
1.	Dr. P.K. Mishra	Director	1(4)	2(47,55)	3	4
Plant Science Division						
2.	Dr. O.P. Chaturvedi	Head of Division	2(34,37)	-	2	-
3.	Dr. Harsh Mehta	Pr. Scientist (Pl. Breed.)	3(11,23,28)	1(10)	4	10
4.	Dr. J.M.S. Tomar	Sr. Scientist (Forestry)	2(25,38)	3(23,24,26)	5	-
5.	Dr. Rajesh Kaushal	Sr. Scientist (Forestry)	2(26,27)	3(7,25,28)	5	-
6.	Dr. A.C. Rathore	Sr. Scientist (Hort.)	2(12,22)	3(7,38,53)	5	-
7.	Dr. J. Jayaprakash	Scientist (Forestry)	1(21)	3(24,27,37)	4	21
8.	Mr. S.A. Morade	Scientist (Hort.)	-	1(55)	1	-
9.	Mr. A.K. Gupta	Scientist (Envt. Sc.)	-	2(25,28)	2	-
Soil Science and Agronomy Division						
10.	Dr. N.K. Sharma	Head of Division	1(10)	4(5,40,47,53)	5	10
11.	Dr. B.N. Ghosh	Pr. Scientist (Soils)	1(9)	4(12,22,37,38)	5	-
12.	Dr. D. Mandal	Sr. Scientist (Soils)	2(3,5)	7(4,7,11,21,23,27,48)	9	3,4,21
13.	Dr. U.K. Maurya	Sr. Scientist (Soils)	-	1(1)	1	-
14.	Dr. Lekh Chand	Sr. Scientist (Agro.)	1(6)	5(5,7,11,15,16)	6	-
15.	Mr. M. Shankar	Scientist (Soils)	On study leave			
16.	Dr. N.M. Alam	Scientist (Ag. Stat.)	-	4(3,6,7,40)	4	3
17.	Dr. Ramanjeet Singh	Scientist (Agro.)	-	3(9,38,55)	3	-
Hydrology and Engineering Division						
18.	Dr. P.R. Ojasvi	I/c Head of Division	1(47)	1(7)	2	-
19.	Dr. D.R. Sena	Pr. Scientist (Engg.)	-	3(4,6,54)	3	4,54
20.	Er. S.S. Shrimali	Sr. Scientist (Com.App.)	1(48)	2(3,11)	3	3
21.	Dr. M. Muruganandam	Sr. Scientist (Fisheries)	-	3(38,40,53)	3	-
22.	Er. S. Patra	Scientist (Engg.)	1(7)	5(4,5,9,53,55)	6	4
23.	Ms. Chayna Jana	Scientist (Ag. Stat.)	-	2(7,48)	2	-
24.	Er. Uday Mandal	Scientist (Engg.)	-	1(38)	1	-
Human Resource Development and Social Science Division						
25.	Dr. Charan Singh	I/c Head of Division	-	4(24,37,47,55)	4	-
26.	Dr. Bankey Bihari	Pr. Scientist (Ag. Extn.)	1(56)	1(54)	2	54,56
27.	Dr. Ambrish Kumar	Pr. Scientist (Engg.)	1(40)	5(10,26,27,37,56)	6	10,56
28.	Dr. D.V. Singh	Pr. Scientist (Soils)	1(55)	3(24,26,47)	4	-
Prioritization, Monitoring and Evaluation Cell						
29.	Dr. B.L. Dhyani	Pr. Scientist (Ag. Eco.)	-	2(40,54)	2	54
30.	Dr. G.C. Sharma	Pr. Scientist (Ag. Stat.)	-	-	-	-
31.	Dr. Pradeep Dogra	Pr. Scientist (Ag. Eco.)	2(53,54)	1(5)	3	54

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

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
Research Centre, Agra						
32.	Dr. S.K. Dubey	Head of Centre	1(5)	3(2,38,41)	4	-
33.	Dr. A.K. Singh	Pr. Scientist (Engg.)	2(53,56)	2(5,51)	4	56
34.	Dr. K.K. Sharma	Sr. Scientist (Engg.)	2(38,41)	1(2)	3	-
35.	Mr. R.K. Dubey	Scientist (SS) (Agro.)	On study leave			
36.	Dr. (Ms.) S. Kala	Scientist (Forestry)	1(51)	1(38)	2	-
37.	Mr. R.B. Meena	Scientist (Soils)	1(2)	3(51,53,56)	4	56
38.	Dr. Dileep Kumar	Scientist (Agro.)	-	3(38,41,53)	3	-
39.	Dr. D.C. Meena	Scientist (Ag. Eco.)	-	2(53,56)	2	56
Research Centre, Bellary						
40.	Dr. A. Raizada	Head of Centre	1(13)	1(42)	2	-
41.	Dr. S.L. Patil	Pr. Scientist (Agro.)	2(53,56)	2(5,14)	4	56
42.	Dr. H. Biswas	Sr. Scientist (Soils)	2(5,14)	2(13,53)	4	-
43.	Er. S.K. Srivastava	Scientist (Engg.)	-	2(13,56)	2	56
44.	Dr. M.N. Ramesha	Scientist (Forestry)	-	1(56)	1	56
45.	Ms. M. Prabhavathi	Scientist (Soils)	On study leave			
46.	Mr. Suresh Kumar	Scientist (Ag. Eco.)	1(42)	2(14,53)	3	-
Research Centre, Chandigarh						
47.	Dr. A.K. Tiwari	Head of Centre	1(51)	2(5,56)	3	56
48.	Dr.(Ms.) Pawan Sharma	Pr. Scientist (Soils)	1(16)	1(15)	2	-
49.	Dr. R.P. Yadav	Pr. Scientist (Soils)	2(5,15)	3(16,29,56)	5	56
50.	Dr. (Ms.) S.L. Arya	Pr. Scientist (Ag. Eco.)	3(53,54,56)	2(15,29)	5	54,56
51.	Dr. V.K. Bhatt	Pr. Scientist (Engg.)	1(38)	4(30,43,51,54)	5	54
52.	Dr. Ram Prasad	Sr. Scientist (Horti.)	1(29)	4(30,38,43,53)	5	-
53.	Dr. Pankaj Panwar	Sr. Scientist (Forestry)	2(30,43)	2(38,51)	4	-
54.	Dr.(Ms.)Sharmistha Pal	Scientist (Soils)	-	5(30,38,43,51,53)	5	-
55.	Dr. Sathiya K.	Scientist (Agro.)	On long leave			
Research Centre Datia						
56.	Dr. S.P. Tiwari	Head of Centre	1(18)	2(5,51)	3	18
57.	Dr. Dev Narayan	Pr. Scientist (Agro.)	3(5,17,53)	1(18)	4	18
58.	Dr. Om Prakash	Pr. Scientist (Ag. Extn.)	2(54,56)	1(18)	3	18,54,56
59.	Mr. Prabhat Kumar	Scientist (Soils)	1(31)	3(5,17,53)	4	-
60.	Dr. Rajeev Ranjan	Scientist (Soils)	-	2(10,53)	2	10
61.	Er.(Ms.) Monalisha Pramanik	Scientist (Engg.)	1(51)	1(5)	2	-
Research Centre, Koraput						
62.	Dr. M. Madhu	Head of Centre	1(53)	3(1,5,51)	4	-
63.	Dr. D.C. Sahoo	Sr. Scientist (Engg.)	2(32,51)	-	2	32
64.	Er. B.S. Naik	Scientist (S.S.) (Engg.)	On study leave			
65.	Mr. H. Gowda	Scientist (Forestry)	On study leave			
66.	Mr. P. Jakhar	Scientist (Agro.)	On study leave			
67.	Dr. P.P. Adhikary	Scientist (Soils)	1(5)	3(1,32,51)	4	32
68.	Dr.(Ms.) J.P. Dash	Scientist (Engg.)	1(1)	-	1	-

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

S. No.	Name	Designation	Leader	Associate	Total	S. No. of projects to be concluded
Research Centre, Kota						
69.	Dr. R.K. Singh	Head of Centre	2(5,19)	4(2,35,44,49)	6	19,49
70.	Dr. A.K. Parandiyal	Pr. Scientist (Forestry)	2(34,35)	4(33,38,49,51)	6	49
71.	Dr. Ashok Kumar	Pr. Scientist (Ag. Eco.)	3(53,54,56)	5(19,33,34,49,51)	8	19,49,54, 56
72.	Dr. Shakir Ali	Sr. Scientist (Engg.)	3(38,49,51)	2(54,56)	5	49,54,56
73.	Dr. B.L. Mina	Sr. Scientist (Soils)	-	4(5,19,35,38)	4	19
74.	Mr. H.R. Meena	Scientist (Hort.)	1(33)	4(19,38,44,53)	5	19
75.	Dr. G.L. Meena	Scientist (Soils)	2(2,44)	2(33,34)	4	-
76.	Dr. Kuldeep Kumar	Scientist (Agro.)	-	2(5,56)	2	56
Research Centre, Udhagamandalam						
77.	Dr. O.P.S. Khola	Head of Centre	-	4(8,20,45,50)	4	45
78.	Dr.(Ms.) P.Sundarambal	Sr. Scientist (Ag. Extn.)	2(54,56)	-	2	54,56
79.	Dr. K. Kannan	Sr. Scientist (Agro.)	4(5,20,38,53)	2(50,51)	6	-
80.	Dr. S. Manivannan	Sr. Scientist (Engg.)	3(45,50,51)	1(56)	4	45,56
81.	Dr. K. Rajan	Sr. Scientist (Soils)	1(8)	4(36,45,50,51)	5	45
82.	Dr. R. Ragupathy	Scientist (SS) (Forestry)	1(36)	1(8)	2	-
83.	Er. (Ms.) V. Selvi	Scientist (SS) (Engg.)	On study leave			
84.	Dr. D. Dinesh	Scientist (Soils)	-	4(5,20,53,56)	4	56
85.	Dr.(Ms) V.K. Thilagam	Scientist (Soils)	-	2(8,20)	2	-
Research Centre, Vasad						
86.	Dr. R.S. Kurothe	Head of the Centre	2(39,51)	3(5,46,56)	5	56
87.	Dr. G.L. Bagdi	Pr. Scientist (Ag. Extn.)	1(56)	1(54)	2	54,56
88.	Dr. V.C. Pande	Sr. Scientist (Ag.Eco.)	2(53,54)	3(39,51,52)	5	54
89.	Dr. B.K. Rao	Sr. Scientist (Engg.)	2(38,46)	1(52)	3	-
90.	Dr. Gopal Kumar	Scientist (Soils)	1(5)	5(38,39,51,52,53)	6	-
91.	Dr. Raj Kumar	Scientist (Forestry)	1(52)	1(38)	2	-

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

LIST OF PARTICIPANTS

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

S.No.	Name	Designation	Participation in IRC as
RESEARCH CENTRE, CHANDIGARH			
44.	Dr. A.K. Tiwari	Head of the Centre	Member
45.	Dr. (Ms.) Pawan Sharma	Principal Scientists (Soils)	
46.	Dr. R.P. Yadav	Principal Scientists (Soils)	
47.	Dr. V.K. Bhatt	Principal Scientist (Engg.)	
48.	Dr. Ram Prasad	Senior Scientist (Hort.)	
49.	Dr. Pankaj Panwar	Senior Scientist (Forestry)	
RESEARCH CENTRE, DATIA			
50.	Dr. S.P. Tiwari	Head of the Centre	Member
51.	Dr. Dev Narayan	Principal Scientist (Agro.)	
52.	Dr. Om Prakash	Principal Scientist (Ag. Extn.)	
53.	Mr. Prabhat Kumar	Scientist (Soils)	
54.	Dr. Rajeev Ranjan	Scientist (Soils)	
55.	Er.(Ms.) Monalisha Pramanik	Scientist (Engg.)	
RESEARCH CENTRE, KORAPUT			
56.	Dr. M. Madhu	Head of the Centre	Member
57.	Dr. D.C. Sahoo	Senior Scientist (Engg.)	
58.	Dr. P.P. Adhikary	Scientist (Soils)	
59.	Dr.(Ms.) J.P. Dash	Scientist (Engg.)	
RESEARCH CENTRE, KOTA			
60.	Dr. R.K. Singh	Head of the Centre	Member
61.	Dr. A.K. Parandiyal	Principal Scientist (Forestry)	
62.	Dr. Ashok Kumar	Principal Scientist (Ag. Eco.)	
63.	Dr. Shakir Ali	Senior Scientist (Engg.)	
64.	Dr. B.L. Mina	Senior Scientist (Soils)	
65.	Mr. H.R. Meena	Scientist (Hort.)	
66.	Dr. G.L. Meena	Scientist (Soils)	
67.	Dr. Kuldeep Kumar	Scientist (Agronomy)	
RESEARCH CENTRE, UDHAGAMANDALAM			
68.	Dr. O.P.S. Khola	Head of the Centre	Member
69.	Dr. P. Sundarambal	Senior Scientist (Ag. Extn.)	
70.	Dr. K. Kannan	Senior Scientist (Agro.)	
71.	Dr. S. Manivannan	Senior Scientist (Engg.)	
72.	Dr. K. Rajan	Senior Scientist (Soils)	
73.	Dr. R. Ragupathy	Scientist (SS) (Forestry)	
74.	Dr. D. Dinesh	Scientist (Soils)	
75.	Dr.(Ms.) V.K. Thilagam	Scientist (Soils)	
RESEARCH CENTRE, VASAD			
76.	Dr. R.S. Kurothe	Head of the Centre	Member
77.	Dr. G.L. Bagdi	Principal Scientist (Ag. Extn.)	
78.	Dr. V.C. Pande	Senior Scientist (Ag. Eco.)	
79.	Dr. B.K. Rao	Senior Scientist (Engg.)	
80.	Dr. Gopal Kumar	Scientist (Soils)	
81.	Dr. Raj Kumar	Scientist (Forestry)	