

**RAC, MANAGEMENT COMMITTEE, IRC MEETINGS****10****RESEARCH ADVISORY COMMITTEE****RAC Members for a period 02.05.2014 to 2.05.2017**

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| 1. Dr. B.C. Mal, Professor and Former Head,<br>Deptt. of Agricultural and Food Engg.<br>IIT, Kharagpur-721 302<br>Ex-Vice Chancellor, Chhattisgarh Swami Vivekanand Technical University, Bhilai | Chairman         |
| 2. Dr. Ranjoodh Singh,<br>Ex-Director (Research) HPKV, Palampur,<br>5 Friends Colony, Holta, Palampur - 176 062 (HP)   | Member           |
| 3. Dr. S.K. Sharma,<br>Ex. Director, IIFSR, Modipuram,<br>J-22, Shastri Nagar, Meerut - 250 004 (UP)   | Member           |
| 4. Dr. K.K. Satpathy,<br>Ex-Director, NIRJAFT<br>A-1, 2/10 Chhayana, Calcutta Greens, 1050/2, Survey Park, Kolkata - 700 075   | Member           |
| 5. Dr. P.S. Pathak,<br>Ex Director,<br>IGFRI, Jhansi<br>K-1/11450 Aashiyana Colony, Kanpur Road Scheme, Lucknow - 226 012  | Member           |
| 6. Dr. Ram Babu,<br>Ex Head, Economics & Project Planning Division, CSWCRTI, Dehradun<br>91/7, Vijay Park, Dehradun - 248 001  | Member           |
| 7. Dr. S.K. Chaudhari,<br>ADG (S&WM), ICAR, New Delhi.   | Member           |
| 8. Dr. P.K. Mishra, Director<br>ICAR-IISWC, 218 Kaulagarh Road, Dehradun - 248 195 (Uttarakhand)<br>Tel. No 0135-2758564(O), 2754968(R)  | Member           |
| 9. Dr. Rajesh Kaushal<br>Sr. Scientist (Forestry)<br>ICAR-IISWC, 218 Kaulagarh Road, Dehradun - 248 195 (Uttarakhand)<br>Tel. No. 0135 - 2757210(O), 2751247(R)                                  | Member-Secretary |

During the period under report, two meetings of Research Advisory Committee (RAC) of the Institute was held in the Chairmanship of Dr. B.C. Mal, Professor & Former Head, Department of Agriculture & Food Engineering, IIT Khargpur & Ex-VC, Chhattisgarh Swami Vivekanand Technical University, Bhilai during June 2-3, 2014 and March 18-19, 2015, respectively. Research Programme-wise progress of on-going projects was presented by Programme Implementers. New project proposals submitted to RAC were also discussed for implementing.

**Following specific recommendations were made in the RAC meeting held during June 2-3, 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 land trees including agroforestry sps. with respect. 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 (Horner's' equation) estimated for Indian conditions by Ram Babu *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.

**Recommendations made in the 2<sup>nd</sup> meeting of RAC held during March 18-19, 2015 were as under:**

1. The institute should formulate package of practices for rehabilitation of ravine lands compiling work done on ravine lands.
2. RAC reiterated its earlier stand on formulation of a project on the use of natural fibre based geo/agro-textiles by the Institute in collaboration with NIRJAFT in different Agro-Ecological Regions of country using proper planting material suited to the local environmental condition.
3. Present status of the Shifting Cultivation in Odisha needs to be documented with suggested action plan.
4. Headquarters and each Centre should have arboretum and a nursery to maintain germplasm of important trees, shrubs, grasses and medicinal plants for conducting long term studies on resource conservation, soil health improvement, biomass optimization, bioenergy flow, and carbon sequestration and raising quality planting material for future use. Status of maintaining such germplasm may also be checked with CAFRI and NBPGR.
5. The impact of NRM measures on productivity enhancement, increase in water availability and socio-economic conditions of the farmers needs to be assessed for Datia and Jhansi Districts by the Research Centre, Datia.

**MANAGEMENT COMMITTEE**

**Status of Institute Management Committee of CSWCRTI, Dehradun**

| Sl.No. | Name and designation of Member   | Status in IMC     | Period of nomination   |
|--------|--|-------------------|------------------------|
| 1.     | Director, ICAR - IISWC, Dehradun   | Chairman          | -                      |
| 2.     | Asstt. Director General (S&WM/A&AF),<br>ICAR, KAB-II, New Delhi<br>Phone (O) 011-25848369                                    | Council's nominee | 12.6.2012 to 11.6.2015 |
| 3.     | Dr. S.K. Kamra, Head<br>Drainage & Irrigation Division<br>CSSRI, Karnal (Haryana)<br>Ph. (O) 0184-2285363, Fax: 0184-2290480 | Member            | 12.6.2012 to 11.6.2015 |
| 4.     | Dr. N.S. Yaduvanshi, Pr. Scientist,<br>Soil Division, IARI, New Delhi  | Member            | 12.6.2012 to 11.6.2015 |
| 5.     | Dr. O.P. Chaturvedi, Head,<br>Plant Science Division,  | Member            | 12.6.2012 to 11.6.2015 |
| 6.     | Dr. (Smt.) Pawan Sharma, Pr. Scientist,<br>IISWC Research Centre, Chandigarh   | Member            | 12.6.2012 to 11.6.2015 |
| 7.     | Finance & Accounts Officer,<br>NDRI, Karnal (Haryana)<br>Fax: 0184-250042  | Member            | 23.8.2011 to 22.8.2014 |
| 8.     | Chief Administrative Officer,<br>ICAR - IISWC, Dehradun (Uttarakhand)  | Member Secretary  | -                      |

During the period under report, two IMC meeting were held at the Institute Headquarters, Dehradun. First meeting (45<sup>th</sup>) of the Institute Management Committee of ICAR-IISWC was held on December 6<sup>th</sup>, 2014 at the Institute Headquarters, Dehradun and second one i.e. 46<sup>th</sup> meeting of IMC on March 07, 2015 at IISWC Research Centre, Chandigarh. Both the meetings were chaired by Dr. P.K. Mishra, Director. On both the

occasion, Chairman of the IMC welcomed all the participation members and apprised them of the establishment, mandate, research and development, achievements for past one year, for the various activities, projects and training programmes being undertaken at the Institute and its 8 Research Centres. During the meeting, various agenda items were taken up and discussed. Major recommendations of the IMC on Agenda items (approved by the Council letters F.No. NRM/3-32/2014-IA-II dated Jan. 5, 2015 & F.No. NRM/3-4/2015-I.A.II dated March 24, 2015) were as under:

### Recommendation of 45<sup>th</sup> IMC meeting held at Dehradun dated December 06, 2014

1. Prioritization of works (₹ 2048.14 lakhs) out of the works approved under XII FYP (2012-17) for execution during the FY 2014-15 / 2015-16 subject to availability of funds / budget allocation by the Council {**Main Institute Dehradun:** Modular laboratories and its furnishing - ₹ 73.0 lakhs; Construction of over head tank - ₹ 41.0 lakhs; Providing GI sheet over the roof terrace of new-cum-old training hostel building including middle portion - ₹ 97.14 lakhs; Renovation/up-gradation and furnishing of rooms old hostel building including electric installation to organise National/ International level training programmes - ₹ 82.0 lakhs; Replacement of electric installation in international guest house and training hostel - ₹ 16.0 lakhs; Extension of existing auditorium with conference hall and its furnishing by providing Air Conditioners, Audio & video aid etc. - ₹ 435.0 lakhs, and Construction of 4 nos. residential quarters type V - ₹ 180.0 lakhs; **RC Agra:** Construction of tube-well with storage and distribution system (2 nos.) - ₹ 32.0 lakhs; Extension/construction of main office building for conducting training - ₹ 59.0 lakhs; **RC Bellary:** Renovation of overhead water tank - ₹ 10.0 lakhs, Renovation of office foyer, portico and lobby - ₹ 6.0 lakhs; Replacement of farm sewer line (900 m) and septic tank with new sewer system - ₹ 15.0 lakhs; Construction of farm fencing with RCC poles and chain link (700 m) - ₹ 35.0 lakhs; Extension, up-gradation and furnishing of main office building - ₹ 45.0 lakhs; Construction of vehicle shed for car at main office - ₹ 15.0 lakhs; and Up-gradation of residential quarters (16 nos.) at main office and research farm - ₹ 10.0 lakhs; **RC Chandigarh:** Repair and maintenance work in farm office and Scientist home - ₹ 12.0 lakhs; Renovation of residential quarters at office and research farm and replacement of old electric wiring and electric accessories with new one - ₹ 15.0 lakhs; **RC Datia:** Construction of training hostel - ₹ 118.0 lakhs; Repair and maintenance of residential quarters like electric wirings and fitting and fixtures - ₹ 10.0 lakhs; **RC Koraput:** Construction of laboratory building at first floor - ₹ 90.0 lakhs; Construction of training hostel and its furnishing - ₹ 165.0 lakhs; Construction of Type V quarter (1 no.) - ₹ 51.0 lakhs; **RC Kota:** Construction of training hostel - ₹ 188.0 lakhs; **RC Udhagamandalam:** Extension of trainees hostel - ₹ 89.0 lakhs; Raising of compound wall on front side of the office building - ₹ 9.0 lakhs; Repair and maintenance of office building - ₹ 12.0 lakhs; Repair and maintenance of guest house - ₹ 11.0 lakhs; External fencing around the periphery of the boundary of research farm over a length of 725 m - ₹ 20.0 lakhs, and **RC Vasad:** Extension of training hostel and its furnishing - ₹ 65.0 lakhs and Extension and up-gradation of library - ₹ 42.0 lakhs}.
2. Execution of works (costing more than ₹ 50.0 lakhs upto ₹ 150.0 lakhs are within the power of the IMC) during the FY 2014-15/2015-16 subject to availability of funds / budget allocation by the council {**HQ Dehradun:** Providing GI sheet over the roof terrace of new-cum-old training hostel building including middle portion - ₹ 97.14 lakhs; Renovation/up-gradation and furnishing of rooms old hostel building including electric installation to organise National/ International level training programmes - ₹ 82.0 lakhs; Construction of 4 nos. residential quarters type V - ₹ 180.0 lakhs, and **RC Koraput:** Construction of laboratory building at first floor - ₹ 90.0 lakhs}
3. Prioritization of Equipments for procurement during the FY 2014-15 / 2015-16 and also recommended purchase of equipments on present / higher cost than it is sanctioned as per Col. No. 6 of agenda item subject to availability of funds / budget allocation by the Council. While recommending above agenda item, the IMC has desired that the Institute may review the expenditure on account of purchase of equipments from time to time so that the total expenditure on this account may not exceed the total budget allocation of ₹ 512.00 lakhs. The IMC has also desired that non-essential equipments may be surrendered to cope up the excess expenditure, in case savings on this account, if any is less than the demand due to

increase in the cost of some of the equipments {*Dehradun - SS&A Divn.:* 15 items - ₹ 8.90 lakhs; *H&E Divn.:* 10 items - ₹ 20.0 lakhs including 2 items (Handheld GPS and Computer with accessories (Scanner, Printer, UPS etc.)) with increased cost; *Pl. Science Divn.:* 12 items - ₹ 21.05 lakhs including Portable Photosynthesis system with increased cost; *HRDSS Divn.:* 16 items - ₹ 32.25 lakhs including 2 items (Computer with accessories (Scanner, Printer, UPS etc.) and Heavy duty Photocopier) with increased cost; *Research Farm, Selakui:* 13 items - ₹ 16.30 lakhs including one item Computer with accessories (Scanner, Printer, UPS etc.) with increased cost; *Central laboratory:* 10 items - ₹ 30.0 lakhs including 3 items (Cone Penetrometer, total carbon Analyser and computer with accessories) with increased cost; *AKMU:* 5 items - ₹ 20.50 lakhs; *Guest House:* 5 items - ₹ 16.15 lakhs including 1 item (Computer with accessories (Scanner, Printer, Ups etc)) with increased cost; *Central Office:* 9 items - ₹ 41.75 lakhs including 1 item (Computer with accessories) with increased cost; *RC Agra:* 13 items - ₹ 8.60 lakhs; *RC Bellary:* 18 items - ₹ 13.15 lakhs including 2 items (Core sampler and Computer with accessories) with increased cost; *RC Chandigarh:* 22 items - ₹ 21.35 lakhs including 1 item (Computer with accessories) with increased cost; *RC Datia:* 26 items - ₹ 20.41 lakhs including 2 items (Mini generator and Computer with accessories) with increased cost; *RC Kota:* 23 items ₹ 28.05 lakhs including 2 items (Field balance for moisture data and Digital Camera) with increased cost; *RC Koraput:* 20 items - ₹ 25.25 lakhs including 2 items (Double distillation set and Hot air oven) with increased cost; *RC Udthagamanadalam:* 20 items - ₹ 15.85 lakhs including 4 items (End to end shaker, Muffle furnace, BOD Incubator and Computer with accessories (Scanner, UPS etc)) with increased cost; and *RC Vasad:* 8 items - ₹ 13.35 lakhs; Grand Total cost - ₹ 351.91 lakhs with increased amount ₹ 30.05 lakhs}.

4. Keeping in view the justification submitted by the Institute, the IMC has recommended regularisation of payment on procurement of computers (25 nos.) in excess of the amount sanctioned under XII FY keeping in the Plan (₹ 10.80 lakhs). However, the IMC has desired that the instructions as given in the recommendations on agenda item no. 3 may also be applied on this account to cope up the excess expenditure (₹ 1.49 lakhs) on this account.
5. Condemnation of Jeep (No. TN-43-9965 Mahindra & Mahindra-Commandar procured in 1998) of Research Centre, Udthagamanadalam subject to condition that the replacement will be procured as per prevailing rules in force.

#### Recommendation of 46<sup>th</sup> IMC meeting held at IISWC RC, Chandigarh dated March 07, 2015

1. Condemnation of Maruti Van No. UP-07-D-7218 of the headquarters, Dehradun and purchase of new vehicle in replacement of the Maruti Van as per procedure.
2. Condemnation of DCM Toyota bus No. UP-07-D-3430 of the headquarters, Dehradun and purchase of new vehicle in replacement of the above bus as per procedure.
3. Condemnation of Swaraj Mazda bus No. CH-01-A-8211 of Research Centre, Chandigarh and purchase of new vehicle in replacement of the above bus as per procedure.

### INSTITUTE RESEARCH COMMITTEE

#### 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.
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.
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.

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.
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.
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.
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.).
8. A technology brochure on concluded project on recharge filter may be published by Dr. Gopal Kumar, Scientist (Soils) during 2014-15. Its process may be patented for which the process details may be sent to Dr. Harsh Mehta, OIC, ITMU.
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.
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.
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.
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.
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.
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.
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.
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.
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.