

**AGENDA AND AGENDA NOTES
69th MEETING OF THE
TECHNICAL ADVISORY COMMITTEE (TAC)
OF NIH**

**JULY 21, 2016
AT 1130 HRS**
IN CENTRAL WATER COMMISSION
CONFERENCE ROOM [525(S)]
SEWA BHAWAN, R K PURAM
NEW DELHI



**NATIONAL INSTITUTE OF HYDROLOGY
ROORKEE-247667**

AGENDA AND AGENDA NOTES FOR THE 69th MEETING OF THE TAC OF NIH

AGENDA ITEMS

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ITEM NO. 69.1 Opening Remarks by the Chairman

ITEM NO. 69.2 Confirmation of the minutes of 68th meeting of the TAC

The 68th meeting of the TAC was held at New Delhi on July 21, 2015. The minutes of the meeting were circulated to all the members and invitees vide letter No. NIH/RCMU/TAC/34/11 dated September 2, 2015. A copy of the minutes of the 68th meeting of TAC is given in **Appendix-69.2.1[Page # 2 (Vol.-II)]**. Since no comments were received from the members on the circulated minutes, the minutes may please be confirmed.

ITEM NO. 69.3: Action taken on the decisions/ recommendations in the previous meeting

The member-Secretary informed that the suggestions offered during the previous meeting have been noted for compliance.

ITEM NO. 69.4: Status and progress of the work programme for the year 2015-2016

The approved Work Programme of the Divisions at the Headquarters and RC/CFMS of the Institute for the year 2015-16 is given in the tables below, and details are provided in **Appendix 69.4.1[Page # 21(Vol.-II)]**:

1. Environmental Hydrology Division
2. Ground Water Hydrology Division
3. Hydrological Investigation Division
4. Surface Water Hydrology Division
5. Water Resources System Division
6. Research Management & Outreach Division
7. Regional Centre, Belgaum

8. Regional Centre, Jammu
9. Regional Centre, Bhopal
10. Regional Centre, Kakinada
11. Centre for Flood Management Studies, Guwahati
12. Centre for Flood Management Studies, Patna

APPROVED WORK PROGRAMME FOR THE YEAR 2015-2016

**ENVIRONMENTAL HYDROLOGY DIVISION
WORK PROGRAMME FOR THE 2015-16**

S.No.	Study	Study Team	Duration	Status
Internal Studies				
1.	Water Quality Modelling using Soft Computing Techniques	Rama Mehta (PI) Anju Choudhary	2 Years (05/14-05/16) Extension granted for 3 months	Completed
2.	Himalayan River Water Quality Assessment in a Stretch from Gangotri to Haridwar	Rajesh Singh (PI) C. K. Jain M. K. Sharma S. P. Rai Renoj J. Thayyan J. P. Patra	3 Years (07/14-06/17)	Further work will be continued under NMSHE Project.
3.	Status Report on Phytoremediation of Wastewater	Rajesh Singh (PI) C. K. Jain	6 Months (11/15 – 04/16) Extension granted for one month	In progress
Sponsored Projects				
1.	Ionic Enrichment Dynamics of Glacial Sediment and Melt water of Gangotri Glacier	M. K. Sharma (PI) C. K. Jain Renoj Thayyan Manohar Arora Naresh Saini Jatin Malhotra Rakesh Goyal Shyam Lal	3 Years (04/14-03/17) Sponsored by DST Project Cost: 32.8 lacs	Ongoing
2.	Low Cost Technology for Purification of Arsenic and Microbes Contaminated Water using Nanotechnology	Vijaya Aggarwala, IITR (PI) Rama Mehta NIH (Co-PI)	2 Years (04/14-03/16) Sponsored by DST, Extended for 6 months by DST	Ongoing
Consultancy Projects				
1.	Water Safety Impact Assessment through Sanitary Improvement of India Mark 2 Hand Pumps in Moradabad Division, Uttar Pradesh	C. K. Jain (PI) Babita Sharma Rakesh Goyal Daya Nand	6 Months (10/14 – 03/15) Extended for 3 months Sponsored by: UNICEF, U.P Amount Rs. 12 Lacs	Completed
2.	Assessment of Ground Water Contamination due to past storage of Spent wash in	C. K. Jain (PI) Sudhir Kumar M. K. Sharma	3 Months (11/15 – 01/16) Sponsored by:	Completed

	Kachcha Lagoons and Suggesting Remedial Measures	Rajesh Singh	Saraya Distillery, Gorakhpur Amount Rs. 5.7 Lacs	
3.	Petroleum Product Contamination at Akolner Village, District Ahmednagar, Maharashtra and Suggesting Remedial Measures	C. K. Jain (PI) Sudhir Kumar B. K. Purendra Anupma Sharma M. K. Sharma Rajesh Singh	One Year (10/15 – 09/16) Sponsored by: MPCB, Mumbai Amount Rs. 54.72 Lacs	Ongoing

**GROUND WATER HYDROLOGY DIVISION
WORK PROGRAMME FOR THE YEAR 2015-16**

S. No.	Project	Project Team	Duration & Status	Status
Internal Studies Completed				
4. NIH/GWD /NIH/15-16	Web Enabled “Groundwater Recharge Estimation Model (WE-GREM)”.	Suman Gurjar (PI), N.C. Ghosh, Sumant Kumar, Surjeet Singh, Anupma Sharma	1 year (08/15 – 3/16)	Completed
Internal Studies ongoing				
1. NIH/GWD /NIH/15-18	Development of Website and e-Portal on “Mitigation and Remedy of Arsenic Menace in India”	C.P. Kumar (PI), Anupma Sharma, Suman Gurjar, Sanjay Mittal	3 years (04/15 – 3/18)	Ongoing
2. NIH/GWD /NIH/14-17	Management of Water Resources for Quantity and Quality in Yamuna-Hindon Inter-basin	Anupma Sharma (PI), N.C. Ghosh (Coordinator), Deepak Kashyap, IITR (Technical Consultant)	3 years (12/14 – 11/17)	Ongoing
3. NIH/GWD /NIH/15-16	Alternate water supply management strategies in arsenic affected/ vulnerable areas: Mapping of Arsenic affected zones/regions in Eastern U.P	Sumant Kumar (PI) N.C. Ghosh, Rajesh Singh, R.P. Singh, Suman Gurjar, S.L. Srivastava, Anju Choudhary	1 year (04/15 – 9/16)	Ongoing
Sponsored Studies ongoing				
5. NIH/GWD /NIH/15-18	Peya Jal Suraksha - Development of Six Pilot Riverbank Filtration Demonstrating Schemes in Different Hydrogeological Settings for Sustainable Drinking Water Supply. (Sponsored by MoWR, RD & GR under Plan Fund)	N.C. Ghosh (Project Coord. & Leader) C.P. Kumar, B. Chakraborty, Y.R.S. Rao, Anupma Sharma, Surjeet Singh, Sumant Kumar, Suman Gurjar, S.P. Indwar, R.P. Singh, Anju Choudhury, Sanjay Mittal, Ram Chandar, Staff SW Lab	2 1/2 year (11/15 – 4/18)	Ongoing

6. NIH/GWD /NIH/16- 17	Groundwater fluctuations and conductivity monitoring in Punjab. (NIH in association with BGS, UK)	Gopal Krishan (PI), N.C. Ghosh, Surjeet Singh, Dan Lapworth (PI from UK) Alan MacDonald (Project Coordinator)	1 year (01/16 – 12/17)	Ongoing
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**HYDROLOGICAL INVESTIGATION DIVISION
WORK PROGRAMME FOR THE YEAR 2015-16**

S. No.	Study	Team	Duration	Status
Internal Studies Completed				
1.	Isotopic Studies for the Identification of Different Aquifer Groups and their Dynamics in Upper Yamuna River Plains	Sudhir Kumar (PI); C K Jain; SP Rai; SD Khobragade; P. K. Garg; CGWB, Lucknow & Chandigarh)	2 years (07/13-06/15)	Completed
2.	Estimation of Radon Concentration in Waters and Identification of Paleo-groundwater in Part of Punjab Located in Satluj River Basin using Isotopes	S. K. Verma (PI) S. P. Rai (Co-PI) M. S. Rao C. P. Kumar Mohar Singh	2 years (10/13-09/15)	Completed
3.	Assessment of dissolved radon concentration for groundwater investigations in Haridwar district	Pankaj Garg (PI) Sudhir Kumar, M. Someshwar Rao	1 year (01/15 – 12/15)	Completed
Internal Studies Ongoing				
4.	Interaction between groundwater and seawater along the northern part of east coast of India	M. S. Rao (PI), Sudhir Kumar Pankaj Garg	2 years (01/15 - 12/16)	Ongoing
5.	Isotopic investigation of benchmark Himalayan glaciers.	M. S. Rao (PI) S.P. Rai, Sudhir Kumar Pankaj Garg	2 years (01/15 - 12/16)	Ongoing
6.	Hydrological aspects of Rewalsar Lake, Himachal Pradesh (Status Report)	SD Khobragade (PI) Sudhir Kumar, C. K. Jain	1 year (04/15 – 07/16)	Ongoing

S. No.	Study	Team	Duration	Status
7.	Lake-Groundwater Interaction Studies for Sukhna Lake, Chandigarh	SD Khobragade (PI); Sudhir Kumar; Senthil Kumar; Pankaj Garg	3 year (04/15 – 03/18)	Ongoing
Sponsored Projects Completed				
8.	The Structure and Dynamics of Groundwater Systems in Northwestern India under Past, Present and Future Climates	S. P. Rai (PI); M. S. Rao; Surjeet Singh; S. K. Verma; C. P. Kumar; Sudhir Kumar	3 years (06/12-07/16)	Completed
9.	The Use of Environmental Isotopes to Assess Sustainability of Intensively Exploited Aquifer Systems in North Eastern Parts of Punjab, India	M. S. Rao (PI) C. P. Kumar S. P. Rai	3 years (09/12-12/15)	Completed
10.	Assessment of Baseflow and its Impact on Water Quality in the Part of Satluj River in India using Environmental Isotopes and Age Dating Techniques	S. P. Rai (PI) R. V. Kale M. S. Rao C. P. Kumar Sudhir Kumar	3 years (10/12-12/16)	Ongoing
11.	Integration of Isotope Hydrology in Aquifer Mapping Efforts in India: A Pilot Study of Upper Yamuna Plains	Sudhir Kumar (PI); S. P. Rai; S. D. Khobragade; C. K. Jain; P. K. Garg	2 years (05/13-03/16) (Extended by IAEA till Jun 16)	
12	Understanding of hydrological processes in Upper Ganga basin by using isotopic techniques	S. P. Rai (PI); Sudhir Kumar; Rajesh Singh; S. D. Khobragade; M. Arora; Dr. R. J. Thayyen; Sh. P. K. Garg	<i>To be under taken under NMSHE project</i>	

CONSULTANCY PROJECTS

S. No.	Study	PI	Duration/ Status	Status
1.	Hydrogeological Study for Dewatering of Jhamarkotra Mines, Distt. Udaipur	Sudhir Kumar	05/13-04/16	Continuing

S. No.	Study	PI	Duration/ Status	Status
2.	Estimation of canal seepage and groundwater recharge using isotopic techniques in the Chajlet block, Moradabad district, Uttar Pradesh	Sudhir Kumar	03/15-02/16	
3.	Hydrogeological and isotopic investigations of District Lalitpur and Jhansi of Bundelkhand region	S. P. Rai	05/15-01/16	
4.	Hydro-geological study for Gadarwara super thermal power project, Madhya Pradesh	SD Khobragade	07/15-06/16	Continuing
5.	Hydro-geological study for Katwa super thermal power project, West Bengal	Sudhir Kumar	07/15 – 4/16	Continuing
6.	Hydro-geological study for Darlipali super thermal power project, Odisha	Sudhir Kumar	9/15 – 8/16	Continuing
7.	Hydro-geological study for Khargone super thermal power project, Madhya Pradesh	SD Khobragade	07/15 – 4/16	Continuing
8.	Hydro-geological and isotopic study for 1x660 MW Harduaganj thermal power project, UP	Sudhir Kumar	11/15 – 10/16	Continuing
9	Hydro-geological and isotopic study for 1x660 MW Panki thermal power project, UP	Sudhir Kumar	12/15 – 11/16	Continuing
10	Hydro-geological study for Kudgi super thermal power project, Karnataka	Sudhir Kumar	11/15 – 10/16	Continuing

**SURFACE WATER HYDROLOGY DIVISION
WORK PROGRAMME FOR THE YEAR 2015-16**

S.No. & Ref. Code	Title	Study Team	Duration	Status
Internal Studies Completed				
1. NIH/SWH D/NIH/12- 15	Application of DSS (P) for Integrated Water Resources Development & Management	A.K. Lohani Surjeet Singh Rahul Jaiswal D K Sonkusale Akilesh Verma	3 years (April 2013 to March, 2016)	Completed
Internal Studies Ongoing				
2. NIH/SWH D/NIH/13- 15	Quantitative assessment of uncertainties in river discharge estimation	Sanjay Kumar Sharad Jain	3 Years (April 2013 to Sept. 2016)	Ongoing
3. NIH/SWH D/NIH/13- 16	Evaluation and modeling of hydrological support system for watersheds of Garhwal, Uttarakhand hills.	Avinash Agarwal Manohar Arora RK Nema	3 Years (November 2013 to October 2016)	Ongoing
4. NIH/SWH D/NIH/13- 16	Estimation of Water Balance for Integrated Water Resources Management in Yerrakalva Pilot Basin, A.P.	J.V.Tyagi YRS Rao	2 years (April 2014 to Sept., 2016)	Ongoing
5. NIH/SWH D/NIH/14- 15	Hydrological modelling of Brahmani Baitarani river basin using eWater Source platform	J.P.Patra Rakesh Kumar Pankaj Mani	3years (April 2014 to March 2017)	Ongoing
6. NIH/SWH D/NIH/14- 17	Study of Rainfall Patterns and Comparison of Rainfall Data from different Sources for Uttarakhand State	Archana Sarkar Vaibhav Garg, Sc C, IIRS, Dehradun Rakesh Kumar N.K. Bhatnagar	3 years (April 2014 to Sept. 2017)	Ongoing
7. NIH/SWH D/NIH/14- 17	Effect of climate change on evaporation at point scale	Digambar Singh A. R. Senthil kumar Manohar Arora	3years (June 2014 to March 2017)	Ongoing
7. NIH/SWH D/NIH/15- 16	Analytical Solution for meeting of two surges or bores	Dr. S.K. Singh	1 year (April 2015 to March 2016)	
9. NIH/SWH D/NIH/15- 16	Generalization and parameter estimation of GEV distribution for flood analysis	Dr. S.K. Singh	1 year (April 2015 to April 2016)	
10. NIH/SWH D/NIH/14- 17	Flood and Sediment studies in Himalayan basin using MIKE-11 Model	A.K. Lohani	3 years (April 2015 to March 2018)	Ongoing

11. NIH/SWH D/NIH/15- 16	Snowmelt Runoff Modelling and Study of the Impact of Climate Change in Sharda River Basin	Achana Sarkar T. Thomas Vaibhav Garg	3 years (April 2015 to March 2018)	Ongoing
12. NIH/SWH D/NIH/15- 16	Study on effect of climate change on sediment yield to Pong reservoir	A. R. Senthil Kumar J. V. Tyagi Avinash Agarwal Suhas Khobragade Manohar Arora	3 years (April 2015 to March 2018)	Ongoing
13. NIH/SWH D/NIH/15- 18	Study of regional drought characteristics and long term changes in supplemental irrigation water requirement in Seonath Basin in Chhattisgarh	R.P. Pandey Rakesh Kumar	2 years (April 2015 to March 2017)	Ongoing
14. NIH/SWD/ NIH/15-18	Effect of Changing Global Tropospheric Temperature on Asia-Pacific Monsoon Circulation and Rainfall Fields across India	Ashwini Ranade	3 years (Oct. 2014 to March 2017)	Ongoing
Sponsored Studies				
15. NIH/SWH D/NIH/14- 17	Monitoring and modelling of streamflow for the Gangotri Glacier	Manohar Arora Rakesh Kumar	3years (May 2014 to March 2017)	Ongoing

**WATER RESOURCES SYSTEM DIVISION
WORK PROGRAMME FOR THE YEAR 2015-2016**

SN	Title	Study Team	Duration	Status
Completed Sponsored/ Internal Studies				
1.	Assessing climate change impact across KBK region of Odisha	P. K. Mishra Sharad K. Jain Sanjay K. Jain	3 Years (04/13-03/16)	Completed
Internal Studies				
1.	NIH_Basin – A WINDOWS based model for water resources assessment in a river basin	M. K. Goel Sharad K. Jain Deepa Chalisgaonkar Prabhash K. Mishra	3 Years (04/13-03/16) (Extended for 1 year)	Ongoing
2.	Glacier change and glacier runoff variation in the upper Satluj river basin	Sanjay K. Jain Sharad K. Jain Renoj J. Thayyen	2.5 Years (10/13-03/16) (Extended for 6 months)	Ongoing
3.	Catchment scale evaluation of cold-arid cryospheric system Hydrology, Ganglass catchment, Ladakh	Renoj J. Thayyen S. P. Rai Sanjay K Jain Sudhir Kumar	3 years (04/14-03/17)	Ongoing
4.	Hydrologic Modelling of a part of Satluj Basin using SWAT Model	P. K. Agarwal Sharad K. Jain Tanveer Ahmad	2 -3/4 Years (06/14-03/17)	Ongoing

		M. K. Goel Sanjay K. Jain M. K. Nema		
5.	Decision Support System for Water Resources Planning in Upper Bhima basin, Maharashtra	D. S. Rathore M. K. Goel, R.P. Pandey Sanjay Kumar Surjeet Singh	2 years (07/14-06/16)	Ongoing
6.	Modeling of Narmada basin by using the GWAVA model	Sanjay K. Jain Sharad K. Jain T. Thomas (RC-Bhopal) P. K. Mishra P. K. Agarwal M. K. Nema	2.25 years Dec. 2014 – Mar 2017	Ongoing
7.	Runoff modeling of Shyok River, Karakorum Range	Renoj J.Thayyen Sanjay K.Jain	3 years Dec-2014 to Nov.2017	Ongoing
8.	Hydrological process and characterization of Lesser Himalayan Catchments	M. K. Nema Sharad K. Jain Sanjay K. Jain Renoj J.Thayyen P. K. Mishra P. K. Agarwal	5 Years 12/14-12/19	Ongoing
9	Studies on Temporal Variation of Sediment Yield in Hilly Watershed of Upper Ganga Basin, Uttarakhand	P.K. Singh Sharad K. Jain Sanjay K. Jain M. K. Nema	2 Years 01/16-12/17	Ongoing
Sponsored Studies				
10.	Development of Ganga Information Portal (Sponsored by MoWR)	Deepa Chalisgaonkar Sharad K. Jain D. S. Rathore Sanjay K. Jain Sudhir Kumar P. K. Mishra P. K. Agarwal M. K. Nema	3 years (04/15-03/18)	Ongoing
11.	Study of hydrological changes in selected watersheds in view of climate change in India. (Sponsored by MoWR)	L. N. Thakural D. S. Rathore Surjeet Singh Tanveer Ahmad Sanjay K. Jain Sharad K. Jain	3 years (04/15-03/18)	Ongoing

**RESEARCH MANAGEMENT & OUTREACH DIVISION
WORK PROGRAMME FOR THE YEAR 2015-2016**

SN	Title of Project/Study, Study Team	Duration	Status
Internal Studies Ongoing			
1.	<p>Study- 1 (RMOD/2015-16/TS-1)</p> <p>Water Conservation and Management in Ibrahimpur Masahi Village of Hardwar District (Uttarakhand) Team: Omkar Singh, V.C. Goyal, C.K. Jain, J.V. Tyagi and Rajesh Singh</p>	<p>DOS: Apr 2013 DOC: Sept. 2016</p>	Ongoing
2.	<p>Study-2 (RMOD/2015-16/TS-3)</p> <p>WEAP Model set up for four sub-basins under Pilot Basin Studies (PBS) Programme, jointly with the RCs/CFMSs</p> <p>NIH HQs: V C Goyal (PBS Leader), Jyoti Patil and R V Kale</p> <p>Co-investigators from NIH RCs/CFMSs: Chandramohan T (RC-Belgaum), Y R S Rao (RC-Kakinada), T R Nayak (RC-Bhopal), B Chakravorty (CFMS-Patna)</p>	<p>DOS: Apr 2015 DOC: Mar 2017 (Ongoing study)</p>	Ongoing
Sponsored Study			
3.	<p>Study- 2 (RMOD/2015-16/TS-2)</p> <p>Customization of WEAP model for application in Ur river watershed in Tikamgarh district of Bundelkhand region. (Under TIFAC Project) Team: R V Kale (PI), T Thomas- RC Bhopal, Jyoti Patil, Rajesh Agarwal</p>	<p>DOS: Apr 2014 DOC: Mar 2016</p>	Completed

REGIONAL CENTRE, BELGAUM
WORK PROGRAMME FOR THE YEAR 2015-2016

S.No.	Title of the Study	Study Group	Duration	Status
Internal Studies Completed				
1	Comparative Analysis of Various Rainfall-Runoff Models for Rivers of Western Ghats	B. Venkatesh, M.K. Jose, and Chandrakumar	3 years (Apr 2013 – Mar 2016)	Completed
2	Studies on Spring flows and estimation of Groundwater Recharge in Ghataprabha Sub-basin	B.K. Purandara, N. Varadarajan, Sudhir kumar and Rajan Vatsa	2 years (Apr 2013 – Mar 2015)	Completed
3	Application of Geostatistical methods for analyzing sedimentation pattern in river basins of Kerala State	M.K. Jose and Chandramohan T	2 years (Oct 2014 – Sep 2016)	Completed
4	Runoff estimation in a catchment using GIS and WEB based tools: A case study	M.K. Jose and B.Venkatesh	1 year (Sept 2014- August 2015)	Completed
5	Impact of Urbanization on Surface and Ground water Quality and Quantity – A Case Study	B.K.Purandara, Sudhir Kumar and N. Varadarajan	2 years (Oct2014- Sep2016)	Completed
Internal Studies Ongoing				
6	Integrated Water Resources Management (IWRM) on a Pilot Basin – Zuari River Basin, Goa	Chandramhoan T, Purandara, B.K and V.C. Goyal	3 years (Apr 2013 – Mar 2016) (Extended for 9 months)	Ongoing
7	Modeling of Sediment Yield From River Basins of Kerala & Goa, Using SWAT Model	Chandramona T and B Venkatesh	2 years (Oct2014- Sep2016)	Ongoing
8	Impact of Land use/Land cover Changes on Ground water – A Case Study	B.K. Purandara, B.Venkatesh and N.Varadarajan	2 years (Oct2014- Sep2016)	Ongoing

SKJ : Sharad K. Jain

VCG : V. C. Goyal, Scientist F

BKP : Purandara, Scientist E

MKJ : Mathew K. Jose, Scientist D

NV : N. Varadarajan, SRA

SK : Sudhir Kumar, Scientist G

BV : B. Venkatesh, Scientist F

CMT : Chandramohan T., Scientist D

RV : Rajan Vats Scientist B

CK : ChandraKumar S., SRA

REGIONAL CENTRE, JAMMU
WORK PROGRAMME FOR THE YEAR 2015-2016

Sl. No.	Title of Study	Study Team	Duration	Status
Internal Studies				
1	Impact of land use changes on environmental flows of Tawi river at Jammu	P Kumar MK Nema SS Rawat	03 years (Nov 2011 to Oct 2014) extn. upto Dec 2015	Completed
2	Climate change effects on hydrology of the Tawi basin in Western Himalaya	MK Nema P Kumar RJ Thayyen	03 years (Nov 2011 to Oct 2014) extn. upto Dec 2015	Completed
3	PBS: Integrated Water Resources Management (IWRM) Study in Tawi River Basin, JK	P Kumar SS Rawat	05 years (Apr 2012 to Mar 2017)	Ongoing
4	Estimation of sediment yield and identification of areas vulnerable to soil erosion and deposition in a western Himalayan catchment	SS Rawat P Kumar	01 year 11 months (May 2015 to Mar 2017)	Ongoing
5	Hydrological Investigation of Natural Water Springs of Baan Ganga watershed in Jammu & Kashmir State	SS Rawat P Kumar SP Rai	02 years 11 months (May 2015 to Mar 2018)	Ongoing
6	Hydrological Investigation of Natural Water Springs of Baan Ganga watershed in Jammu & Kashmir State	SS Rawat P Kumar SP Rai	02 years 11 months (May 2015 to Mar 2018)	Ongoing
Consultancy Project				
7	Establishment of Silt Observation Post (SOP) in the Baglihar HEP catchment (S&WC Dept., J&K)	P Kumar PG Jose SS Rawat	06 months (Mar 2016 to Oct 2016)	Ongoing

REGIONAL CENTRE, BHOPAL
WORK PROGRAM FOR THE YEAR 2015-16

S. No.	Title of the Study	Study Group	Duration	Status
1.	Pilot Basin Studies: IWRM in Bina River Basin in Bundelkhand Region of Madhya Pradesh	T. R. Nayak T. Thomas Ravi Galkate R.K. Jaiswal	5 Years April 2012 to March 2017	On-going
2.	Development of Decision Support System (DSS) Model for Shipra River Basin of MP	Ravi Galkate R.K. Jaiswal T. R. Nayak T. Thomas WRD Bhopal	3½ Years June 2013 to May 2016	On-going
3.	Integrated Assessment of Drought Vulnerability for Water Resources Management in Bina Basin	T. Thomas T. R. Nayak R. K. Jaiswal R. V. Galkate	2 Years July 2014 to June 2016	Completed
4.	Irrigation Planning and Management in the Command of Harsi Reservoir Project in Madhya Pradesh	R.K. Jaiswal, T. Thomas, R. V. Galkate, Dr. T. R.Nayak WRD Bhopal	2½Years May 2013 to Oct. 2015	Completed
5.	Estimation of Revised Capacities of Reservoirs in Chhattisgarh state using Digital Image Processing technique	R.K. Jaiswal Dr. T. R. Nayak R. V. Galkate T. Thomas A. K. Lohani WRD Bhopal	2 Years April 2015 to March 2017	On-going

REGIONAL CENTRE, KAKINADA
WORK PROGRAM FOR THE YEAR 2015-16

S. No.	Project	Project Team	Duration	Status
Internal Studies Completed				
1	Evaluation of urban storm water network in Hyderabad using SWMM	R.Venkata Ramana Y.R.Satyaji Rao S.V.Vijayakumar V.S. Jeyakanthan	April 2013 to March 2016	Completed
2	Statistical downscaling and assessment of climate change impact on hydrology of Mahanadi river basin	P.C.Nayak Y.R.Satyaji Rao B. Venkatesh T. Thomas	April 2013 to March 2016	Completed
Internal Studies Completed				
3	IWRM Studies (2013-2017): Assessment of water availability in the upper Yerrakalva Basin	Y.R.Satyaji Rao S.V.Vijayakumar J.V.Tyagi R.Venkata Ramana B. Krishna	April 2014 to March 2016 (Extended upto 2017)	Ongoing
4	Identification of submarine groundwater discharge and sea water intrusion zones in Godavari Delta using integrated approach	Y.R.Satyaji Rao M.S.Rao R.Venkata Ramana	August 2014 to March 2017	Ongoing
5	Identification of Ground Water Recharge zones in Vaippar Basin, Tamilnadu using Remote Sensing and GIS techniques	V.S. Jeyakanthan, J.V. Tyagi R Venkata Ramana	April, 2015 to March, 2017	Ongoing
6	IWRM Studies (2013-2017): Development of hydrological management practice plans for IWRM in the Lower Yerrakalva Basin	S.V.Vijaya Kumar Y.R.Satyaji Rao V.S.Jeyakanthan	April, 2015 to March, 2017	Ongoing
7	Development of groundwater level forecasting model using high frequency groundwater level data in the Srikakulam District of Andhra Pradesh	B. Krishna Y.R.Satyaji Rao R Venkata Ramana	April, 2015 to March, 2016	Dropped

CFMS, GUWAHATI
WORK PORGRAM FOR THE YEAR 2015-16

S.No.	Title of study	Study Group	Duration (Month/Year)	Status
Internal Studies				
1.	Application of the Arc-SWAT Model for the Prediction of Runoff within Kulsu River Basin (Assam/Meghalaya)	GulshanTirkey Sanjay Sharma C. K. Jain	2 years (07/13-03/15) Extended upto 03/16	Completed
2.	Status Report on Soil Erosion and Sedimentation in Brahmaputra River Basin	GulshanTirkey C. K. Jain	1 year (07/13-03/14) Extended upto 03/16	Completed
3.	Flood Inundation Mapping using RRI Model for Kulsu River Basin (Assam/Meghalaya)	S. K. Sharma Gulshan Tirkey C. K. Jain	1 year (04/15-03/16)	Completed

CFMS, PATNA
WORK PROGRAM FOR THE YEAR 2015-16

SI	Title of the study	Study Team	Duration	Status
1.	Pilot Basin Studies (PBS) for Mahi River Basin in Ghaghra-Gandak Composite Basin	B Chakravorty NG Pandey Pankaj Mani	04/12-03/17 (XII Plan Year)	Ongoing
2.	Development of flood forecasting system based on rainfall information obtained from satellite data	Pankaj Mani Rakesh Kumar	3 year (2013-16)	Completed
3.	Time Series analysis of Monthly Rainfall in Mahi Basin	NG Pandey B Chakravorty Sanjay Kumar	2 year (2014-2016)	Ongoing
4.	Demonstration scheme on Riverbank Filtration in Gagatic plain of Bihar	B Chakravorty NG Pandey	2 year (2015-17)	Ongoing
5.	Spatial and Temporal Distribution of Geochemical Characteristics and Environmental Stable Isotopes in Groundwater of North Bengal	SR Kumar, MS Rao and SWID	2 year (2015-17)	Ongoing

The list of research papers published by the scientists and scientific staff of the Institute during June, 2015 - March, 2016 & April 2016 to May, 2016 is given in **Appendix 69.4.2 [Page # 312 (Vol.-II)]**. The list of workshops/training courses/seminar/symposia organized during June, 2015 - March, 2016 & April, 2016 to May, 2016 is given in **Appendix 69.4.3 [Page # 332 (Vol.-II)]**. The progress of laboratory work done during June, 2015-June, 2016 is given in **Appendix 69.4.4 [Page # 335 (Vol.-II)]**.

Various activities carried out under Information, Education and Communications (IEC) programme, to create mass awareness among the people regarding water conservation, harvesting, quality of water, etc., is given in **Appendix 69.4.5 [Page # 339(Vol.-II)]**.

The TAC may please consider the progress and status of the Work Programme of the Divisions and RC/CFMS of NIH for the year 2015-2016.

ITEM NO. 69.5: Report the proceedings of the Working Group meeting

The 43rd & 44th meeting of the Working Group of NIH were held at NIH, Roorkee, during December 8-9, 2015 and April 18-19, 2016, respectively, under the Chairmanship of Director, NIH. The Working Group considered the status of the work programme of the year 2015-16 and also the proposed work programme for the year 2016-17 under two categories: (i) internally funded projects, and (ii) sponsored/consultancy projects, including purpose driven projects under HP-II.

The approved minutes of the 43rd & 44th meeting of the NIH Working Group are given in **Appendix 69.5.1 & 69.5.2 [Page #341 & 371 (Vol.-II)]**.

The TAC may please note the proceedings of the meeting of the Working Group.

ITEM NO. 69.6: Work programme for the year 2016-2017

The proposed Work Programme of the Divisions at the Headquarters and RC/CFMS of the Institute for the year 2016-17 is given in the tables below.

1. Environmental Hydrology Division
2. Ground Water Hydrology Division
3. Hydrological Investigation Division
4. Surface Water Hydrology Division
5. Water Resources System Division
6. Research Management & Outreach Division
7. Regional Centre, Belgaum
8. Regional Centre, Jammu
9. Regional Centre, Bhopal
10. Regional Centre, Kakinada
11. Centre for Flood Management Studies, Guwahati
12. Centre for Flood Management Studies, Patna

**ENVIRONMENTAL HYDROLOGY DIVISION
APPROVED WORK PROGRAMME FOR THE YEAR 2016-17**

S.No.	Study	Study Team	Duration/Status
Internal Studies (Completed)			
1.	Water Quality Modelling using Soft Computing Techniques	Rama Mehta (PI) Anju Choudhary	2 Years (05/14-08/16)
Internal Studies (New)			
1.	Assessment of suitable habitats for the aquatic species of Western Himalayan Stream	Pradeep Kumar C.K. Jain	2 years (04/16-03/18)
Sponsored Projects (Continuing)			
1.	Ionic Enrichment Dynamics of Glacial Sediment and Melt water of Gangotri Glacier	M. K. Sharma (PI) C. K. Jain Renoj Thayyan Manohar Arora Naresh Saini Jatin Malhotra Rakesh Goyal Shyam Lal	3 Years (04/14-03/17) Sponsored by DST Status: Ongoing Project Cost: 32.8 lacs
2.	Low Cost Technology for Purification of Arsenic and Microbes Contaminated Water using Nanotechnology	Vijaya Aggarwala, IITR (PI) Rama Mehta, NIH (Co-PI)	2 Years (04/14-03/16) Sponsored by DST Status: Ongoing Extended for 6 months
Sponsored Projects (New)			
3.	Environmental Assessment of Aquatic Ecosystem of Upper Ganga Basin	C. K. Jain (PI), NIH Manohar Arora, NIH M. K. Sharma, NIH P. Kumar, NIH R. Singh, NIH D. S. Malik, GKU	5 Years (04/16-03/21) Sponsored by DST under NMSHE Project Cost: 2.25 Crore
Consultancy Projects (Continuing)			
1.	Petroleum Product Contamination at Akolner Village, District Ahmednagar, Maharashtra and Suggesting Remedial Measures	C. K. Jain (PI) Sudhir Kumar B. Purendra Anupma Sharma M. K. Sharma Rajesh Singh	One Year (10/15 – 09/16) Sponsored by: MPCB Amount Rs. 54.72 Lacs Status: Ongoing
Consultancy Projects (New)			
2.	Study on Ash Disposal from Telangana STPP into Mine Void of Medapalli Open Cast Mines	C. K. Jain (PI)	One Year (04/16 – 03/17) Sponsored by NTPC Amount Rs. 54.96 Lacs

**GROUND WATER HYDROLOGY DIVISION
WORK PROGRAMME FOR THE YEAR 2016-17**

S. No.	Project	Project Team	Duration	Status
Ongoing Internal Studies				
1. NIH/GW D/NIH/15 -18	Development of Website and e-Portal on "Mitigation and Remedy of Arsenic Menace in India"	C.P. Kumar (PI), Anupma Sharma, Suman Gurjar, Sanjay Mittal	3 years (04/15 – 3/18)	Ongoing
2. NIH/GW D/NIH/14 -17	Management of Water Resources for Quantity and Quality in Yamuna-Hindon Inter-basin	Anupma Sharma (PI), N.C. Ghosh (Coordinator), Deepak Kashyap, IITR (Technical Consultant)	3 years (12/14 – 11/17)	Ongoing
3. NIH/GW D/NIH/15 -16	Alternate water supply management strategies in arsenic affected/vulnerable areas: Mapping of Arsenic affected zones/regions in Eastern U.P	Sumant Kumar (PI) N.C. Ghosh, Rajesh Singh, R.P. Singh, Suman Gurjar, S.L. Srivastava, Anju Choudhary	1 year (04/15 – 3/16)	Ongoing
4. NIH/GW D/NIH/15 -16	Web Enabled "Groundwater Recharge Estimation Model (WE-GREM)".	Suman Gurjar (PI), N.C. Ghosh, Sumant Kumar, Surjeet Singh, Anupma Sharma	1 year (08/15 – 3/16)	Ongoing
Ongoing Sponsored Studies				
5. NIH/GW D/NIH/15 -18	Peya Jal Suraksha - Development of Six Pilot Riverbank Filtration Demonstrating Schemes in Different Hydrogeological Settings for Sustainable Drinking Water Supply.	N.C. Ghosh (Project Coord. & Leader) C.P. Kumar, B. Chakraborty, Y.R.S. Rao, Anupma Sharma, Surjeet Singh, Sumant Kumar, Suman Gurjar, S.P. Indwar, R.P. Singh, Anju Choudhury, Sanjay Mittal, Ram Chandar, Staff SW Lab	2 1/2 year (11/15 – 4/18)	Ongoing Sponsored by MoWR, RD & GR under Plan Fund.
6. NIH/GW D/NIH/16 -17	Groundwater fluctuations and conductivity monitoring in Punjab.	Gopal Krishan (PI), N.C. Ghosh, Surjeet Singh, Dan Lapworth (PI from UK) Alan MacDonald (Project Coordinator)	1 year (01/16 – 12/17)	Ongoing NIH in association with BGS, UK
Proposed New Internal Study				
7. NIH/GW D/NIH/16 -17	Baseline data collection and analysis of Mewat district, Haryana.	N.C. Ghosh (Project Coordinator), Gopal Krishan (PI), Surjeet Singh, C.P. Kumar,	1 year (03/16 – 03/17)	New

		Brijesh Yadav (IITR), Lalit Mohan Sharma (Sehgal Foundation, Gurgaon)		
8. NIH/GW D/NIH/16 -16	Web Enabled “Conjunctive Use Model for Management of Surface and Ground Water using concept of MAR and ASR”.	Suman Gurjar (PI), N.C. Ghosh, Sumant Kumar, Surjeet Singh, Anupma Sharma	08 Months (04/16 – 11/16)	New
Proposed New Sponsored Studies				
9. NIH/GW D/NMSH E/16-21	Study of river - aquifer interactions and groundwater potential in the upper Ganga basin up to Dabrani.	Surjeet Singh (PI), N.C. Ghosh, R. J. Thayyen, S. P. Rai, Manohar Arora, Gopal Krishan,	1 year (03/16 – 02/21)	New Sponsored by DST under NMSHE.
10. NIH/GW D/NIH/16 -16	Evaluation of Saryu Nahar Pariyojna(SNP) National Project in Uttar Pradesh.	N. C. Ghosh Gopal Krishan R. P. Singh J. K. Mishra	06 Months (03/16-08/16)	New Sponsored by MoWR, RD & GR.
11. NIH/GW D/16-17	<i>Country-wide Capacity Building Program on</i> “Bank Filtration for Sustainable Drinking Water Supply”	N. C. Ghosh, Lead Other Scientists of the division	2 years (02/16 – 12/17) 4 training courses	Sponsored by DST

**HYDROLOGICAL INVESTIGATIONS DIVISION
WORK PROGRAMME FOR THE YEAR 2016-17**

S. No.	Study	Team	Duration/ Status
INTERNAL STUDIES			
1.	Interaction between groundwater and seawater along the northern part of east coast of India	M. S. Rao (PI), Sudhir Kumar Pankaj Garg	2 years (01/15 - 12/16) Continuing Study
2.	Status Report on Rewalsar Lake, Himachal Pradesh	SD Khobragade (PI) Sudhir Kumar, C. K. Jain	1 year (04/15 – 03/16) Continuing Study (to be extended upto July, 2016)
3.	Lake-Groundwater Interaction Studies for Sukhna Lake, Chandigarh	S.D Khobragade (PI); Sudhir Kumar; S. P. Rai, Senthil Kumar; Pankaj Garg	3 years (04/15 – 03/18) Continuing Study
4.	Radiocarbon dating of deeper groundwater of Indo-Gangetic Basin	Dr. M. S. Rao (PI) Dr. Sudhir Kumar	3 years (04/16 – 03/19) New Study
5.	Isotopic Investigations in parts of Upper Yamuna River Basin	S. K. Verma (PI), Sudhir Kumar, S P Rai, Mohar Singh, Vishal Gupta	2 years (04/16 – 03/18) New Study
SPONSORED PROJECTS			
6	The Structure and Dynamics of Groundwater Systems in Northwestern India under Past, Present and Future Climates	S. P. Rai (PI); M. S. Rao; Surjeet Singh; S. K. Verma; C. P. Kumar; Sudhir Kumar	3 years (06/12-03/16) Continuing Study To be extended upto July, 2016
7	Assessment of Baseflow and its Impact on Water Quality in the Part of Satluj River in India using Environmental Isotopes and Age Dating Techniques	S. P. Rai (PI) R. V. Kale M. S. Rao C. P. Kumar Sudhir Kumar	3 years (10/12-04/16) Continuing Study To be extended upto July, 2016
8	Integration of Isotope Hydrology in Aquifer Mapping Efforts in India: A Pilot Study of Upper Yamuna Plains	Sudhir Kumar (PI); S. P. Rai; S. D. Khobragade; C. K. Jain; P. K. Garg	2 years (05/13-03/16) Extended by IAEA till Jun 16
9.	Understanding of hydrological processes in Upper Ganga basin by using isotopic techniques	S. P. Rai (PI); Sudhir Kumar; Rajesh Singh; S. D. Khobragade; M. Arora; Dr. R. J. Thayyen; Sh. P. K. Garg	5 Years 04/16-03/21 New Study
CONSULTANCY PROJECTS			
1.	Hydrogeological Study for Dewatering of Jhamarkotra Mines, Distt. Udaipur	Sudhir Kumar	05/13-04/16 Continuing Study

S. No.	Study	Team	Duration/ Status
2	Hydro-geological study for Gadarwara super thermal power project, Madhya Pradesh	SD Khobragade	07/15-06/16 Continuing Study
3	Hydro-geological study for Katwa super thermal power project, West Bengal	Sudhir Kumar	07/15 – 4/16 Continuing Study
4	Hydro-geological study for Darlipali super thermal power project, Odisha	Sudhir Kumar	9/15 – 8/16 Continuing Study
5	Hydro-geological study for Khargone super thermal power project, Madhya Pradesh	SD Khobragade	07/15 – 4/16 Continuing Study
6	Hydro-geological and isotopic study for 1x660 MW Harduaganj thermal power project, UP	Sudhir Kumar	11/15 – 10/16 Continuing Study
7.	Hydro-geological and isotopic study for 1x660 MW Panki thermal power project, UP	Sudhir Kumar	12/15 – 11/16 Continuing Study
8.	Hydro-geological study for Kudgi super thermal power project, Karnataka	Sudhir Kumar	11/15 – 10/16 Continuing Study
9.	Hydro-geological study for Jawaharpur thermal power project, Etah, UP	SP Rai	12/15 – 11/16 Continuing Study

**SURFACE WATER HYDROLOGY DIVISION
WORK PROGRAMME FOR THE YEAR 2016-17**

S.No. & Ref. Code	Title	Study Team	Duration
Internal Studies (Completed)			
1. NIH/SWHD/ NIH/12-15	Application of DSS (P) for Integrated Water Resources Development & Management	A.K. Lohani Surjeet Singh Rahul Jaiswal D K Sonkusale Akilesh Verma	3 years (April 2013 to March, 2016)
Internal Studies (Ongoing)			
2. NIH/SWHD/ NIH/13-15	Quantitative assessment of uncertainties in river discharge estimation	Sanjay Kumar Sharad Jain	3 Years (April 2013 to Sept. 2016)
3. NIH/SWHD/ NIH/13-16	Evaluation and modeling of hydrological support system for watersheds of Garhwal, Uttarakhand hills.	Avinash Agarwal Manohar Arora RK Nema	3 Years (November 2013 to October 2016)
4. NIH/SWHD/ NIH/13-16	Estimation of Water Balance for Integrated Water Resources Management in Yerrakalva Pilot Basin, A.P.	J.V.Tyagi YRS Rao	2 years (April 2014 to Sept. 2016)
5. NIH/SWHD/ NIH/14-15	Hydrological modelling of Brahmani Baitarani river basin using eWater Source platform	J.P.Patra Rakesh Kumar Pankaj Mani	3years (April 2014 to March 2017)
6. NIH/SWHD/ NIH/14-17	Study of Rainfall Patterns and Comparison of Rainfall Data from different Sources for Uttarakhand State	Archana Sarkar Vaibhav Garg, Sc C, IIRS, Dehradun Rakesh Kumar N.K. Bhatnagar	3 years (April 2014 to Sept. 2017)
7. NIH/SWHD/ NIH/14-17	Effect of climate change on evaporation at point scale	Digambar Singh A. R. Senthil kumar Manohar Arora	3years (June 2014 to March 2017)
8. NIH/SWHD/ NIH/15-16	Analytical Solution for meeting of two surges or bores	Dr. S.K. Singh	1 year (April 2015 to March 2016)
9. NIH/SWHD/ NIH/15-16	Generalization and parameter estimation of GEV distribution for flood analysis	Dr. S.K. Singh	1 year (April 2015 to April 2016)
10. NIH/SWHD/ NIH/14-17	Flood and Sediment studies in Himalayan basin using MIKE-11 Model	A.K. Lohani	3 years (April 2015 to March 2018)
11. NIH/SWHD/ NIH/15-16	Snowmelt Runoff Modelling and Study of the Impact of Climate Change in Sharda River Basin	Achana Sarkar T. Thomas Vaibhav Garg	3 years (April 2015 to March 2018)
12. NIH/SWHD/ NIH/15-16	Study on effect of climate change on sediment yield to Pong reservoir	A. R. Senthil Kumar J. V. Tyagi Avinash Agarwal	3 years (April 2015 to March 2018)

		Suhas Khobragade Manohar Arora	
13. NIH/SWHD/ NIH/15-18	Study of regional drought characteristics and long term changes in supplemental irrigation water requirement in Seonath Basin in Chhattisgarh	R.P. Pandey Rakesh Kumar	2 years (April 2015 to March 2017)
14. NIH/SWD/NI H/15-18	Effect of Changing Global Tropospheric Temperature on Asia-Pacific Monsoon Circulation and Rainfall Fields across India	Ashwini Ranade	3 years (Oct. 2014 to March 2017)
Ongoing Sponsored Study			
15. NIH/SWHD/ NIH/14-17	Monitoring and modelling of streamflow for the Gangotri Glacier	Manohar Arora Rakesh Kumar	3years (May 2014 to March 2017)
New Internal Studies			
16. NIH/SWD/NI H/16-18	Snow cover variability in the Upper Yamnotri Basin	Naresh Kumar Manohar Arora Rakesh Kumar	2 years (April 2016 to June 2018)
17. NIH/SWHD/ NIH/16-17	Generalization and parameter estimation of GEV distribution for flood analysis: Specific application on Indian data	Sushil K. Singh	1 year (April 2016 to March 2017)
18. NIH/SWHD/ NIH/16-19	Application and development of analytical models on data collected at NIH under Saph-Pani Project	Sushil K. Singh	3 years (April 2016 to March 2019)

**WATER RESOURCES SYSTEM DIVISION
WORK PROGRAMME FOR THE YEAR 2016-2017**

SN	Title	Study Team	Duration	Funding (Rs. in Lakhs)
Ongoing Internal Studies				
1.	NIH_Basin – A WINDOWS based model for water resources assessment in a river basin	M. K. Goel Sharad K. Jain Deepa Chalisgaonkar Prabhash K. Mishra	3 Years (04/13-03/16)	NIH (16)
2.	Glacier change and glacier runoff variation in the upper Satluj river basin	Sanjay K. Jain Sharad K. Jain Renoj J. Thayyen	2.5 Years (10/13-03/16)	NIH (12)
3.	Catchment scale evaluation of cold-arid cryospheric system Hydrology, Ganglass catchment, Ladakh	Renoj J. Thayyen S. P. Rai Sanjay K Jain Sudhir Kumar	3 years (04/14-03/17)	NIH (48)
4.	Hydrologic Modelling of a part of Satluj Basin using SWAT Model	P. K. Agarwal Sharad K. Jain Tanveer Ahmad M. K. Goel Sanjay K. Jain M. K. Nema	2 -3/4 Years (06/14-03/17)	NIH (23)
5.	Decision Support System for Water Resources Planning in Upper Bhima basin, Maharashtra	D. S. Rathore M. K. Goel, R.P. Pandey Sanjay Kumar Surjeet Singh	2 years (07/14-06/16)	NIH (34)
6.	Modeling of Narmada basin by using the GWAVA model	Sanjay K. Jain Sharad K. Jain T. Thomas (RC-Bhopal) P. K. Mishra P. K. Agarwal M. K. Nema	2.25 years Dec. 2014 – Mar 2017	NIH
7.	Runoff modeling of Shyok River, Karakorum Range	Renoj J.Thayyen Sanjay K.Jain	3 years Dec-2014 to Nov.2017	NIH (38)
8.	Hydrological process and characterization of Lesser Himalayan Catchments	M. K. Nema Sharad K. Jain Sanjay K. Jain Renoj J.Thayyen P. K. Mishra P. K. Agarwal	5 Years 12/14-12/19	NIH+
9.	Development of Ganga Information Portal	Deepa Chalisgaonkar Sharad K. Jain D. S. Rathore Sanjay K. Jain	3 years (04/15-03/18)	MoWR (65.55)

		Sudhir Kumar P. K. Mishra P. K. Agarwal M. K. Nema		
10.	Study of hydrological changes in selected watersheds in view of climate change in India.	L. N. Thakural D. S. Rathore Surjeet Singh Tanveer Ahmad Sanjay K. Jain Sharad K. Jain	3 years (04/15-03/18)	MoWR (44.30)
11.	Studies on Temporal Variation of Sediment Yield in Hilly Watershed of Upper Ganga Basin, Uttarakhand	P.K. Singh Sharad K. Jain Sanjay K. Jain M. K. Nema	2 Years 01/16-12/17	NIH (8.20)
New Sponsored Study				
1.	Mass and Energy balance of Phuiche and Khardung glaciers, Ladakh range	R.J. Thayyen Farooq Azam P.G. Jose A.P. Dimri	3 Years (03/16-02/19)	SERB (65.14)
2.	NMSHE SUB-PROJECTS	-	-	-

**RESEARCH MANAGEMENT & OUTREACH DIVISION
WORK PROGRAMME FOR YEAR 2016-2017**

SN	Title of Project/Study	Study Team	Duration	Funding
Ongoing Internal Studies				
1.	Study- 1 (RMOD/2015-16/TS-1) Water Conservation and Management in Ibrahimpur Masahi Village of Hardwar District (Uttarakhand)	Omkar Singh (PI), V C Goyal, Dinesh Kumar	DOS: Apr 2013 DOC: Sept. 2016 (Ongoing study)	NIH
2.	Study-2 (RMOD/2015-16/TS-3) WEAP Model set up for four sub-basins under Pilot Basin Studies (PBS) Programme, jointly with the RCs/CFMSs	NIH HQs: Jyoti Patil (PI), V C Goyal NIH RCs/CFMSs: Chandramohan T (Belgaum), Y R S Rao (Kakinada), T R Nayak (Bhopal), B Chakravorty (Patna), R V Kale (Jammu)	DOS: Apr 2015 DOC: Mar 2017 (Ongoing study)	NIH
Ongoing Sponsored Projects				
3.	Integrating hydrology, climate change and IWRM with livelihood issues: Development of methodology and a DSS for water-scarce Bundelkhand region in India- preparation of final report	V C Goyal (PI), T Thomas, Jyoti Patil, Rajesh Agrawal	DOS: Aug 2013 DOC: Jul 2016	TIFAC (Rs 56.64 lakh)
New Sponsored Projects				
4.	IWRM Based Development Plan for Water Security in Four Districts of Bundelkhand Region in India	V C Goyal (PI), Omkar Singh, Jyoti Patil, T R Nayak, Ravi Galkate, T Thomas, R K Jaiswal, Shashi P Indwar, Subhash Kichlu, Rajesh Agrawal, Dinesh Kumar	DOS: Apr 2016 DOC: Dec 2016	MoWR, RD & GR (Rs 299.4 lakh)
5.	Development of a DSS for Hydrology and Watershed Management in Neeranchal Project	V C Goyal (PI)	DOS: May 2016 DOC: Mar 2021	DoLR (Gol)

REGIONAL CENTRE, BELGAUM
APPROVED WORK PROGRAM FOR THE YEAR 2016-17

S. No.	Title of the Study	Study Group	Duration	Funding
Internal Studies				
1	Integrated Water Resources Management (IWRM) on a Pilot Basin – Zuari River Basin, Goa	CMT, BKP, VCG	Apr 2013 – Dec 2016	Internal
2	Modeling of Sediment Yield From River Basins of Kerala & Goa, Using SWAT Model	CMT and BV	Oct2014-Sep 2016	Internal
Sponsored Studies				
3	Clean and safe drinking water supply to rural community using river bank filtration techniques in hard rock regions of Krishna basin, Karnataka, India.	BKP & SK	Apr 2016 – Mar 2019	DST Sponsored
4	Impact of Land use/Land cover Changes on Ground water – A Case Study (<i>submitted for sponsorship from MoES, and is approve in principal and sanction letter awaited</i>)	BKP & BV	3 years (April 16-March 19)	MoES
Consultancy Projects				
5	Dam Break Analysis of Dams in Sharavathi and Varahi River Valley	BV & All RC Staff	2 years	KPCL Consultancy
6	Hydro-geological investigation in MRPL campus	BKP & All RC Staff	1 year	MRPL Consultancy
7	Hydro-Geological study for Kudgi Super Thermal Power Project Stage-I (3x800) mw, Bijapur, Karnataka	SK & RC Staff	1 year	NTPC Consultancy

REGIONAL CENTRE, JAMMU
PROPOSED WORK PROGRAMME FOR THE YEAR 2016-17

S.No.	Study	Study Team	Duration	Status
Internal Studies				
1.	Impact of land use changes on environmental flows of Tawi river at Jammu	P Kumar MK Nema SS Rawat	03 years (Nov 2011 to Oct 2014) extn. upto Dec 2015	Completed
2.	Climate change effects on hydrology of the Tawi basin in Western Himalaya	MK Nema P Kumar RJ Thayyen	03 years (Nov 2011 to Oct 2014) extn. upto Dec 2015	Completed
3.	PBS: Integrated Water Resources Management (IWRM) Study in Tawi River Basin, JK	P Kumar SS Rawat	05 years (Apr 2012 to Mar 2017)	Ongoing
4.	Estimation of sediment yield and identification of areas vulnerable to soil erosion and deposition in a western Himalayan catchment	SS Rawat P Kumar	01 year 11 months (May 2015 to Mar 2017)	Ongoing
5.	Hydrological Investigation of Natural Water Springs of Baan Ganga watershed in Jammu & Kashmir State	SS Rawat P Kumar SP Rai	02 years 11 months (May 2015 to Mar 2018)	Ongoing
6	Water Quality assessment of lakes and other surface water bodies in Jammu Region	PG Jose SS Rawat RV Kale	03 years (Aug 2016 to Jul 2019)	Proposed*
7	Inventory and geotagging of natural water springs with reference to physico-chemical characteristics, Tawi Catchment, Jammu & Kashmir	SS Rawat PG Jose RV Kale	03 years (Aug 2016 to July 2019)	Proposed*
8	Simulating discharges and forecasting floods using advanced measuring and hydrological modelling techniques for Tawi Basin, India	RV Kale PG Jose SS Rawat SP Rai	03 years (Aug 2016 to Jul 2019)	Proposed*
Consultancy Projects				
1.	Establishment of Silt Observation Post (SOP) in the Baglihar HEP catchment	P Kumar PG Jose SS Rawat	06 months (Mar 2016 to Oct 2016)	Ongoing

* To be finalized in the upcoming RCC meeting of WHRC, Jammu.

REGIONAL CENTRE, BHOPAL
PROPOSED WORK PROGRAMME FOR THE YEAR 2016-17

S. No.	Title of the Study	Study Group	Duration	Funding
1.	Investigation of the Climate Change Impacts on the Water Resources, Droughts and Desertification in Western Madhya Pradesh	T. Thomas, P. C. Nayak Surjeet Singh B. Venkatesh R. V. Galkate R. K. Jaiswal	4 years (2016-17 to 2019-20)	NHP (NIH)
2.	Dam-Break Analysis & Preparation of Emergency Action Plan for a Reservoir in Madhya Pradesh	R. K. Jaiswal R. V. Galkate T.R. Nayak A. K. Lohani T. Thomas Shashi Indwar	4 years (2016-17 to 2019-20)	NHP (NIH)
3.	Development of Inflow Forecasting Model using RTDAS	T.R. Nayak R. K. Jaiswal R. V. Galkate T. Thomas Shashi Indwar	4 years (2016-17 to 2019-20)	NHP (NIH)
4.	Evaluation of Impacts of Irrigation infrastructure development in Madhya Pradesh	Ravi Galkate R.K. Jaiswal T.R. Nayak T. Thomas Shashi Indwar	4 years (2016-17 to 2019-20)	NHP (NIH)
5.	Optimization of Gauge and Discharge Station Network of Chhattisgarh	Ravi Galkate R.K. Jaiswal T.R. Nayak T. Thomas Shashi Indwar	4 years (2016-17 to 2019-20)	NHP (Chhattisgarh)
6	Integrated Reservoir Operation Studies for Mahanadi Reservoir Complex in Chhattisgarh	T.R. Nayak R. V. Galkate R. K. Jaiswal T. Thomas Shashi Indwar	4 years (2016-17 to 2019-20)	NHP (Chhattisgarh)
7	Assessment of Crop Water Requirement for Selected Command in Mahanadi basin of Chhattisgarh for Optimal Utilization of Irrigation Water	T. Thomas, P. C. Nayak Surjeet Singh B. Venkatesh R. V. Galkate R. K. Jaiswal	3 years (2016-17 to 2018-19)	NHP (Chhattisgarh)
8	Hydrological modeling for un-gauged catchments in Mahanadi Basin	R. K. Jaiswal N.C. Ghosh T.R. Nayak R. V. Galkate T. Thomas Shashi Indwar	4 years (2016-17 to 2019-20)	NHP (Chhattisgarh)

**REGIONAL CENTRE, KAKINADA
WORK PROGRAMME FOR THE YEAR 2016-17**

S.No	Title of the Study	Study Team	Duration	Funding
Internal Studies				
1	Identification of submarine groundwater discharge and sea water intrusion zones in Godavari Delta using integrated approach	Y.R.Satyaji Rao M.S.Rao R.Venkata Ramana	2014 to 2017	Internal
2	Identification of Ground Water Recharge zones in Vaippar Basin, Tamilnadu using Remote Sensing and GIS techniques	V.S. Jeyakanthan J.V. Tyagi R Venkata Ramana	2015 to 2017	Internal
3	IWRM Studies (2013-2017): Development of hydrological management practice plans for IWRM in the Lower Yerrakalva Basin	S.V.Vijaya Kumar Y.R.Satyaji Rao V.S.Jeyakanthan	2015 to 2017	Internal
4	IWRM Studies (2013-2017): Assessment of water availability in the Upper Yerrakalva Basin	Y.R. Satyaji Rao S.V. Vijayakumar J.V. Tyagi R. Venkata Ramana	2014 to 2017	Internal
Sponsored Studies				
4	River bank Filtration studies in coastal alluvium of Andhra Pradesh	Y.R.Satyaji Rao	2016 to 2019	New/Under Peya Jal Suraksha Project

**CFMS, GUWAHATI
WORK PROGRAMME FOR THE YEAR 2016-17**

S.No.	Title	Study Group	Duration (Month/Year)	Remarks
Internal Studies				
1.	Evaluation of Ground Water Quality with more Emphasis on Arsenic Contamination in Nalbari District of Assam	C. K. Jain S. K. Sharma Gulshan Tirkey Babita Sharma	2 year (04/16-03/18)	Internal
2.	Short Term Flood Forecasting Using Bootstrap based Artificial Neural Networks within Kuls River Basin (Assam / Meghalaya)	S. K. Sharma Gulshan Tirkey C. K. Jain	1 year (04/16-03/17)	Internal
3.	Application of USLE Model for Estimation of Soil Loss in Kuls River Basin using Remote Sensing and Geographic Information System	Gulshan Tirkey Sanjay Sharma C. K. Jain	1 years (04/16-03/17)	Internal

CFMS, PATNA
APPROVED WORK PROGRAMME FOR THE YEAR 2016-17

S.No.	Title of the Study	Study Team	Duration	Funding
Internal Studies (Continuing)				
1.	Pilot Basin Studies (PBS) for Mahi River Basin in Ghaghra-Gandak Composite Basin	B. Chakravorty, Sc. 'G' N. G. Pandey, Sc. 'D'	4 year (2013-2017)	NIH
2.	Time Series analysis of Monthly Rainfall in Mahi Basin	N. G. Pandey, Sc. 'D' B. Chakravorty, Sc. 'G' Sanjay Kumar, Sc. 'D', SWHD, NIH Roorkee	3 year (2014-2017)	NIH
3.	Demonstration scheme on Riverbank Filtration in Gangetic plain of Bihar	B. Chakravorty, Sc. 'G' N. G. Pandey, Sc. 'D'	2 year (2015-2017)	NIH
4.	Spatial and Temporal Distribution of Geochemical Characteristics and Environmental Stable Isotopes in Groundwater of North Bengal using GIS and its Assessment with the help of Water Quality Index (WQI) and Existing Classification Systems	S.R. Kumar, Sc. 'D', M.S. Rao, Sc. 'D', HID NIH, Roorkee and Officials from SWID	Two year (2015-2017)	NIH
Internal Studies (New)				
5.	Development of Relationships between Reference Evapotranspiration (ET _o) of Penman-Monteith and other Climatological methods	S.R. Kumar, Sc. 'D' and scientists from HQ	3 year (2016-2019)	NIH

ITEM NO. 69.7: Reporting Items

LIST OF COMPLETED CONSULTANCY PROJECTS IN NIH AT A GLANCE

Sl.No.	Project Title	Project No.	Client	Division	Amount (Rs)	Duration	P.I./P.L	Status
1	Glacial Lake Out burst Flood (GIOF) Study For Jelam Tamak H.E. Project	CS-01/2010-10/NIH(WRSD)	THDC	WRSD	97,500	2 Months (May-June 2010)	Dr.Sanjay K Jain, Sc.-E2	Completed
2	Snow line estimation snowmelt runoff study and Glacial lake Outburst Flood study for Chamkharchhu H.E Project	CS-02/2010/NIH(WRSD)	NHPC	WRSD	16,26,000	Not mentioned	Dr.Sanjay K Jain, Sc.-E2	Completed
3	Environmental Flow Study of Shongtong-Karchham Hydro Electric Project in HP	CS-03/2010-11/NIH(SWHD)	HPPCL	SWHD	5,34,955	One Year from October, 2010	Dr.Manhh ar Arora, Sc.-C	Completed
4	Estimation of design basis -flood and safe grade elevation in the upstream of bargi Dam at Chutka,Nuclear Power Project Site	CS-04/2010-11/NIH(SWHD)	NPCIL	SWHD	23,38,360	12 Month from August, 2010	Dr Rakesh Kumar Sc.- 'F'	Completed
5	Estimation of design Basis- Flood and Safe grade Elevation for Nuclear Power Project site Gorakhpur Site near Village Kumhariya in District Fatehabad near Hissar in Haryana	CS-05/2010-11/NIH(SWHD)	NPCIL	SWHD	23,38,360	15 Month from August, 2010	Dr Rakesh Kumar Sc.-'F'	Completed
6	Area Drainage and Hydro-geological study for 6300MW coal based Thermal Power Plant at Ontimamidi Village (AP)	CS-06/2010-10/NIH(DRC-Kakinada)	GMR Coastal Energy Pvt Ltd	DRC, Kakinada	10,02,627	3 Months from November, 2010	Dr Y.R. Satyajai Rao, Sc.-E2	Completed
7	Area Drainage and Hydro-geological study for Proposed 2000 MW natural gas based combined cycle power plant at Komaragiri village near Kakinada (AP)	CS-07/2010-10/NIH(DRC-Kakinada)	GMR Coastal Energy Pvt Ltd	DRC, Kakinada	8,46,795	56 Workingdays	Mr. S.V . Vijaya Kumar, Sc.-E1	Completed
8	Environmental Flow Assessment (Hydrology) of Hydroelectric Projects in Alkananda-Bhagirathi basin up to Devprayag	CS-08/2010-10/NIH(EHD)	AHEC, IIT Roorkee	EHD	7,25,278	3 months from Dec.1, 2010	Dr. Dilip Durbude, Sc.-C	Completed
9	Snowline estimation snowmelt runoff study and Glacial Lake Outburst Flood Study For Kuri Gongri H.E. Project in Bhutan	CS-09/2010-11/NIH(WRSD)	NHPC Ltd., Faridabad	WRSD	22,00,000	9 month from Dec.1,2010	Dr.Sanjay K Jain, Sc.-E2	Completed
10	GLOF study of Bokang-Bailing H.E. Project	CS-10/2010-11/NIH(WRSD)	THDC,Rishikesh	WRSD	9,43,000	6 month From 15th July,2010	Dr.Sanjay K Jain, Sc.-E2	Completed

		RS)						
11	Hydrology Report for 330 MW Bokang - Bailing H. E. Project	CS-11/2010-11/NIH(SWHD)	THDC, Rishikesh	SWHD	9,50,000	4 months from 10th February, 2011	Dr. Rakesh Kumar, Sc.-F	Completed
12	Vetting of water availability studies for Gulf of Khambhat Development Project (WR)	CS-12/2011-11/NIH(WRS)	Gulf of Khambhat Development Project (WR), Govt. of Gujarat	WRSD	7,99,124	6 months from 29.04.2011	Dr. M. K. Goel, Sc.-E2	Completed
13	Glacier Lake Outburst Flood (GLOF) study for Malari Jalam H. E. Project	CS-13/2011-11/NIH(WRSD)	THDC Ltd., Rishikesh	WRSD	97,500	1 month from 18 February, 2011	Dr. Sanjay. K. Jain, Sc.-E2	Completed
14	Feasibility study of surface water and Groundwater availability including identification of potential groundwater recharge sites in the CIFMR campus, Dhanbad	CS-14/2011-11/NIH(GWHD)	Engineering Projects (India) Ltd., New Delhi	GWHD	15,07,000	6 months from July, 2011	Dr. N. C. Ghosh, Sc.-F	Completed
15	Drainage area mapping and hydrological studies in and around Gurha (W) Lignite Block in Kolayat tehsil of Bikaner, Rajasthan	CS-16/2012-12/NIH(GWHD)	Rajasthan State Mines and Minerals Limited, Jaipur, Rajasthan	(GWHD)	12,50,000	9 Months from 18th Jan., 2012	Dr. N. C. Ghosh, Sc.-F	Completed
16	Hydrological Studies and Multi-Reservoir Simulation Studies for Detailed Project Report of Ken-Betwa Link (Phase-II)	CS-18/2012-12/NIH(WRSD)	NWDA Govt of India, Gwalior	WRSD	26,96,640	6 Months from May-Oct., 2012	Dr. M.K. Goel, Sc-F	Completed
17	Hydrological Area Drainage Study for proposed Khurja Super Thermal Power Project (2 x 660 MW) at Khurja, Distt. Bulandshahar (U.P)	CS-20/2012-12/NIH(SWHD)	THDC India Ltd., Ghaziabad	SWHD	12,93,000	5 Months from February 17, 2012	Dr. Rakesh Kumar, Sc-F	Completed
18	Hydrological Investigation (Surface Water) & Drainage Pattern study for 4000 MW coal based TPP at Nana Layja, in District, in the state of Gujarat.	CS-22/2011-12/NIH(SWHD)	IL & FS Energy Development Company Ltd. Gurgaon	SWHD	12,93,000	7 Months from September 7, 2011	Dr. Rakesh Kumar, Sc-F	Completed
19	Site Specific Area Drainage study for plant and Ash Dyke for Khargone Super Thermal Power Project (2x660 MW)	CS-23/2011-11/NIH(SWHD)	NTPC, Ltd. NOIDA	SWHD	12,93,000	5 Months from August 10, 2011	Dr. Rakesh Kumar, Sc-F	Completed
19	Site Specific Area	CS-	NTPC,	SWHD	12,93,000	5 Months	Dr.	Completed

	Drainage study for plant and Ash Dyke for Khargone Super Thermal Power Project (2x660 MW)	23/2011-11/NIH (SWHD)	Ltd. NOIDA			from August 10, 2011	Rakesh Kumar, Sc-F	
20	Area Drainage Study for Rourkela Expansion Power Project (1x250 MW)	CS-24/2012-12/NIH/(SWHD)	NTPC-SAIL Power Company Pvt. Ltd. Bhikaji Kama Place, New Delhi	SWHD	12,93,000	5 Months from February 16, 2011	Dr. Rakesh Kumar, Sc-F	Completed
21	Impact of mining on groundwater regime in Ghogha-Surka, Khadsaliya-I and Khadsaliya-II Lignite Mines, Bhavnagar, Gujarat	CS-25/2011-11/NIH/(HID)	Gujarat Power Corporation Ltd. Ahmedabad	HID	16,19,200	Five Months from August 1, 2011	Dr. Sudhir Kumar, Sc-F	Completed
22	Hydrogeological Studies and rainwater harvesting technology / design for 4 x 600 MW Coal Based Thermal Power Plant at Jindal Power Limited Tamnar, Distt. Raigarh, Chhattisgarh	CS-26/2011-11/NIH (HID)	Jindal Power Limited, Tamnar, Raigarh	HID	11,68,838	Five Months from May 23, 2011	Dr. Sudhir Kumar, Sc-F	Completed
23	Hydrogeological Studies of hamarkotra Mines, Udaipur, Rajasthan	CS-27/2010-2011/NIH (HID)	Rajasthan State Mines and Minerals Limited, Udaipur (Rajasthan)	HID	13,17,412	Eighteen Months from June, 2010	Dr. Sudhir Kumar, Sc-F	Completed
24	Environmental flow Assessment For HEO 240 MW, Arunachal Pradesh	CS-28/2012-2012/NIH (SWHD)	VELCAN Energy, New Delhi	SWHD	4,43,825/-	2 Months	Dr. Manohar Arora, Sc-C	Completed
25	Evaluation of GLOF hazard & mitigation plan for Lachung basin, Sikkim	CS-29/2012-12/NIH/(SWHD)	Lachung Hydro Power Limited, Noida	SWHD	909500/	6 Months	Dr. A K Lohani, Sc-F	Completed
26	Pilot study on ground water pollution in Hindon-Kali-Krishni river catchment in Western Uttar Pradesh	CS-32/2012-2013/NIH (EHD)	WSSO, Lucknow	EHD	13,17,412	Six months	Dr. C K Jain, Sc-F	Completed
27	Hydro-Geological studies for the proposed Kothagudem Thermal Power Station Stage VII (1x800 MW), Polancha, Distt. Khammam, (Andhra Pradesh)	CS-33/2012-13/NIH (Kakinada)	APGENCO, Hyderabad	Kakinada	23,93,268	Six months	Dr. Y.R.S.Rao, Scientist-F	Completed/ To be closed

28	Hydro-Geological studies for the proposed Dr. Narla Tata Rao Thermal Power Station Stage V (1x800 MW), Ibrahimpatnam, Distt. Krishna, (Andhra Pradesh)	CS-34/2012-13/NIH (Kakinada)	APGEN CO, Hyderabad	Kakinada	23,93,268	Six months	Dr. V. S. Jeyakanthan, Scientist-D	Completed/ To be closed
29	Cumulative Impact Assessment of Alaknanda and Bhagirathi Including Tributaries	CS-35/2012-13/NIH (WRSD)	Uttarakh and Jalvidhyut Nigam, Dehradun	WRSD	60,62,103.00	Twelve months from January 2013	Dr. Sharad K Jain, Sc-F	Completed
30	Hydro-geological study for 800 MW expansion unit under stage II for Sri Damadram Sanjeevaiah Thermal Power Station Nelatur, village, Muthukar Mandal, Distt. Nellore (AP)	CS-36-2013-2013-NIH (Kakinada)	APPDC L, Hyderabad	Kakinada	28,37,090	Six months	Dr. P.C. Nayak, Scientist 'D'	Completed
31	Impact of Coal Mining on Groundwater Recharge and Sedimentation in Rihand Reservoir	CS-37/2013-13/NIH(HID)	Mohan Coal Ltd.	HID	42,69,680	Six months	Dr. Sudhir Kumar, Scientist 'F'	Completed
32	Area Drainage Study for Ash Dyke and Design of Drain for Water logged Area of coal based power Station (2980 MW) of NTPC at Sipat, Distt Bilaspur, Chhatisgarh	CS41-2013-2013/NIH(SWHD)	NTPC Bilaspur	SWHD	27,57,427	5 months from Jan 2013	Shri Rakesh Kumar Scientist F	Completed
33	Area Drainage Studies for Power Projects of NTPC-SAIL Power Company Pvt Ltd at Jagdishpur SAIL unit in Distt Sultanpur (UP)	CS42-2013-2013/NIH(SWHD)	NSPCL Delhi	SWHD	11,75,342	5 months from Jan 2013	Shri Rakesh Kumar Scientist F	Completed
34	Identification of Source of Seepage/Leekage around Lake Nainital-UK	CS-46/2012-13/NIH(HID)	Uttarakh and state council for Science & Technology Dehradun	HID	2,64,608	Three months	Dr. S P Rai 'D'	Completed
35	Study of Hydrological & Hydro-geological aspect of Korba power project in Chhatisgarh (MP) to assess water source sustainability	CS-48/2013-13/NIH(GWHD)	Korba power corporation ltd. Gurgao n	GWHD	24,71,920.00	Three months (3.9.13 to 3.12.13)	Dr. N. C. Ghosh Scientist 'F'	Completed
36	Study of Hydrological &	CS-	Jhabua	GWHD	24,71,920.	Three	Dr. N. C.	Completed

	Hydro-geological aspect of Jhabua power project in Chhatisgarh (MP) to assess water source sustainability	49/2013-13/NIH(G WHD)	power corporation Ltd. Gurgao n		00	months (3.9.13 to 3.12.13)	Ghosh Scientist 'F'	
37	Hydrological study of limestone mining area for integrated green field cement project near Mundwa, in Nagpur district of Rajasthan	CS-51/2013-15/NIH(S WHD)	Ambuja Cement s Ltd	SWHD	28,09,000	Six months	Shri Rakesh Kumar Scientist F	Completed
38	Hydrological studies for Burhi-Gandak-Noon-Baya-Ganga Link	CS-52/2012-13/NIH(CF MS/PATN A)	NWDA	CFMS PATNA	26,49,097	4 months (Extn upto Dec 2013)	Sh B Chakravarty, Sc F	Completed
39	Estimation of Sediment rate at proposed Jalleru Reservoir, Andhra Pradesh	CS-53/2013-14 NIH/RC/Kakina da	Gayatri Projects Limited Hyderabad	NIHRC Kakinada	21,77,000	Six months	Dr Y R S Rao, Scientist F	Completed
40	Identification of Source and location of Seepage/Leekage from Kaushalya Dam Haryana	CS-55/2013-14/NIH(HI D)	Irrigation Department, Govt of Haryana	HID	20,22,480	six months	Dr. S P Rai 'D'	Completed
41	Impact Assessment of Ash Pond on the Groundwater Quality un the surrounding villages of NTPC Simhadri through stable isotopic studies	CS-56/2013-15/NIH(HI D)	NEERI Nagpur	HID	10,11,240	Two Years	Dr. Sudhir Kumar, Scientist 'F'	Completed
42	Environmental flow study of Nakthan HEP (520 MW) Project in Himachal Pradesh	CS-58/2014-2014/NIH (SWHD)	HPPCL. Bhunter, Himachal Pradesh	SWHD	10,39,330/-	6 Months	Dr. Manohar Arora, Sc-C	Completed
43	Yield Study of Yettinahole Project Kakinad	CS-59/2014-2014/NIH (SWHD)	Karnataka Neervari Nigam	HRRC Belgaum	5,62,8560/-	2 Months	Dr. B Venkatesh, Sc-E	Completed
44	Isotopic Characterization of Groundwater of Distt Raigarh	CS-61/2014-15/NIH(HI D)	Chhatisgarhcouncil for Science & Technology Raipur	HID	4,94,384.00	6 months	Dr. S.P.Rai, Sc-E	Completed
45	Hydrogeological study for Ash Pond of 2x525 MW Maithon Power Ltd and an abandoned coal mine, Distt Dhanbad, Jharkhand	CS-62/2014-15/NIH(HI D)	Maithon Power Ltd	HID	16,15,175.00	1 ½ months	Dr. Sudhir Kumar, Scientist 'F'	Completed
46	Design Flood Estimate for Pagal Nallah, leh	CS-63/2014-15/NIH (WRSD)	DGBR Leh	WRSD	5,39,328.00	6 months	Dr Sanjay K Jain Sc F	Completed

47	Water Safety Impact Assessment through Sanitary Improvement of India Mark 2 Hand Pumps in Moradabad, UP	CS-65/2014-15/NIH (EHD)	UNICEF, UP	EHD	12,02,000.00	6 months	Dr. C K Jain, Scientist-G	Completed
48	Possible Impact of Construction Activities in Kansal Area (Mohali) on Water Flow to Sukhna Lake in Chandigarh	Cs67-2014-15/NIH(HID)	Tata Housing Development Company, New Delhi	HID	3,25,000.00	Two months from the date of receipt of funds	Dr. S.D. Khobragade	Completed
49	Ganga Aquifer Management for Ecosystems Services (GAMES)	CS-71/2014-15/NIH (WRSD)	IWMI Srilanka	WRSD	16,91,000	12 months from June 1, 2014	Dr Sharad K Jain, Sc G	Completed
50	Feasibility of Infiltration Wells for river Bank Filtration of Srinagar, Gauchar, and Karnprayag in Uttarakhand	CS/76/2015-15/NIH(GWHD)	Uttarakh and Jal Sansthan	GWHD	3,00,000.00	10 days from 13.4.2015	Dr N C Ghosh	Completed
51	Assessment of groundwater contamination due to past storage of spent wash in Kachacha Lagoons and suggesting remedial measures Petroleum Products Contamination at Akoner Village, Maharashtra and suggesting remedial measures	CS-85/2015-15/NIH (EHD)	saraya distillery Gorakhpur	EHD	Rs. 570000/-	3 months	Dr. C K Jain, Scientist 'G'	Ongoing

List of On-going Consultancy Projects as on 1.4.2016

SN	Title of Project	Consultancy No.	Sponsoring Agency	Total Cost (in Rs)	Duration	Status
1	Hydr-geological study for 4000MW Vadarevu Thermal Power Plant near Kanuparthi Village, Naguluppalapadu Mandal, Prakasam Dist., A.P.	CS-15/2011-12/NIH(DRC-Kakinada)	APGENCO Ltd., Hyderabad	18,57,452	Six months	Ongoing
2	Hydrological Study for Rural Drinking Water Supply Options in part of Bundelkhand Region of, U.P	CS- 17/2012-12/NIH(SWHD)	SWSM, DODW Govt. of U.P	26,28,449	Eight Months	Ongoing
3	Cumulative Environment Impact Assessment studies for Satluj Basin in Himachal Pradesh	CS-19/2012-13/NIH(WRSD)	Indian Institute of Technolog, Roorkee	23,23,605	12 Months	Ongoing
4	Area Drainage Study for Plant and Ash Dyke for Gajmara Super Thermal Power Project (4 x 800 MW) Sponsored by NTPC Ltd, New Delhi.	CS-21/2012-12/NIH/(SWHD)	NTPC, Ltd. NOIDA	12,93,000	3year 6 months	Ongoing
5	Dam Break Analysis and Preparation of Emergency	CS-30/2012-12/NIH/(SWHD)	Irrigation and CAD	10,60,000/-	Twelve Months	

	action Plan for Nagarjuna Sagar dam		Dept., Govt. of Andhara Pradesh			Ongoing
6	Dam Break Analysis for Indira Sagar Polavaram Project	CS-31/2012-12/NIH (SWHD)	Irrigation and CAD Dept., Govt. of Andhara Pradesh	14,51,310	Six Months	Ongoing
7	Cumulative Environmental Impact Assessment (CEIA) study of Yamuna River Basin with special reference to HEPs	CS-38/2013-14/NIH(WRS)	Uttarakhand Jalvidhyut Nigam, Dehradun	15,68,827	Ten months	Ongoing
8	Integrated Hydrological Investigations of Sukhna Lake for its conservation and Management	CS-39/2011-13/NIH(HID)	Deptt of forest & wildlife, Chandigarh Administration, Chandigarh	22,00,485	Two years	Ongoing
9	Pre-Dredging and Post-Dredging Bathymetric Surveys of Ramgarh Taal, Gorakhpur (UP)	Cs40-2012-13/NIH(HID)	AHEC, IIT Roorkee	9,40,000 + 12.36% service Tax	Two spells of six months	Ongoing
10	Estimation of Design basis flood and safe grade elevation for Mahi-Banswara Power Project	CS43-2012-2014/NIH(SWHD)	NPCIL Mumbai	59,44,293	Eighteen months	Ongoing
11	Dam Break Analysis for Sharavathi and Varhi Basin Dams	CS-44/2013-14/NIH/ (HRRC, Belgaum)	KPCL	21,41,300	Nine months	Ongoing
12	Hydrological Studies for dewatering of Jamarkotra Mines, Udaipur, Rajasthan	CS-45/2013-16/NIH(HID)	Rajasthan state Mines & Minerals Ltd. Udaipur	22,55,680	Three Years	Ongoing
13	Environmental Impact Assessment Study (Hydrology & Biology) of Shivanasamudram Power Project. Karnataka, India	CS-47/2010-11/NIH(HID)	Karnataka Power Corporation Limited Bangalore	1972600+ST 10.3%	One Year	ongoing
14	Drainage Analysis and Design for Proposed Kakinada SEZ (KSEZ) Area in AP	CS-50/2013-14/NIH(DRC, Kakinada)	Kakinada SEZ, GMR Group, Hyderabad	21,40,458	Six months	Ongoing
15	Hydrological Area Drainage Studies & design of drainage system for GHAVP-1 to 4	CS54-2013-2015/NIH(SWHD)	NPCIL Mumbai	34,98,890	Two years	Ongoing
16	Estimation of Design Basis Flood and safe grade elevation for nuclear power project site at Narora	CS57-2013-2015/NIH(SWHD)	NPCIL Mumbai	67,22,386	Two years	Ongoing
17	Hydraulic Modelling for Brahmaputra Riverfront Development Project For Guwahati	CS-60/2013-2015/NIH (SWHD)	Guwahati Metropolitan Dev Authority	83,42,730	Two years	Ongoing
18	Desk Study of Dam Break Analysis for Kudgi STPP, Stage-I	CS-64/2014-15/NIH (SWHD)	NTPC Noida	20,14,053	Three months	Ongoing
19	Environmental flow study of Surgani-Sundla HEP in Distt Chamba (HP)	CS-66/2014-15/NIH (EHD)	HPPCL, Hamirpur	8,00,003	Six months	Ongoing

20	Water Availability Studies for Chulka Lake	CS68-2014-2016/NIH(SWHD)	NPCIL Mumbai	40,05,072	Two years	Ongoing
21	Area Drainage Study including hydrological design of site area drainage for chutka lake	CS69-2014-2016/NIH(SWHD)	NPCIL Mumbai	40,05,072	Two years	Ongoing
22	EFR of Shongtong Karchhum	CS-70/2014-15/NIH(SWHD)	HPPCL Kinnau	4,19,140	Two months	Ongoing
23	Project wise water availability and integrated operation analysis of major projects in Krishna Basin	CS-72/2015-15/NIH(WRSD)	Irrigation & CAD Department, Govt of Andhra Pradesh	95,67,454.00	10 months	Ongoing
24	GIS Map for the entire catchment of Sapta Kosi High dam Multipurpose Project and Sun Kosi Storage-cum-diversion Schem, Nepal	CS-73/ 2015-15/NIH(WRSD)	Project Manager, JPO-SKSKO, Nepal	5,26,000.00	3 months	Ongoing
25	Water loss study for Pushkar Sarovar, Ajmer	CS-74/ 2015-16/NIH(SWHD)	Executive Engineer NLCP, Pushkar ADA, Ajmer	24,21,000.00		Ongoing
26	Estimation of Canal Seepage & Ground Water Recharge using Isotopic Techniques in the Chajlet Block Moradabad Distt	CS-75/2015-15/NIH(HID)	Ground Water Department, Lucknow	9,25,000.00	3 months	Ongoing
27	Environment flow requirement of River Parbati & Tons Nallah by using Hydraulic Rating Method & suitable recommendations thereof for Nakthan HEP	CS-77/2015-15/NIH(SWHD)	HPPCL, Kinnaur	4,19,140.00	Two months from May 2015	Ongoing
28	Hydrological & Isotopic Investigations of Distt Lalitpur & Jhansi of Bundelkhand Region	CS-78/2015-15/NIH(HID)	WAPCOS	1,35,80,000	6 months	Ongoing
29	Hydro geological study of Katwa Super Thermal Power Project of NTPC Ltd.	CS-79/2015-16/NIH(HID)	NTPC Gadarwada	48,45,000.00	12 months	ongoing
30	Hydro geological study of Gadarwada Super Thermal Power Project of NTPC Ltd.	CS-80/2015-15/NIH(HID)	NTPC Gadarwada	45,60,000.00	12 months	ongoing
31	Preparation of emergency action plan for NSRSSP and inundation map associated with dam break analysis in AP	CS-81/2014-16/NIH (SWHD)	CE, NSRSSP, Hyderabad	29,45,000.00	Two years	Ongoing
32	Hydro-Dynamic flow Analysis in Kuakhai and Kathajodi River System	CS-82/2015-16/NIH (SWHD)	Vishontek Consultancy Services, Bhubneshwar	4,07,305.00	---	Ongoing
33	Mathematical model Development for Vishwamitri River System in Vadodara City	CS-83-2015-2017/NIH(SWHD)	Vadodara Mahanagar Sewa Sadan, Vadodara	51,22,020.00	Two years	Ongoing
34	Petroleum Products Contamination at Akoner Village, Maharashtra and suggesting remedial measures	CS-84/2015-16/NIH (EHD)	MPCB Maharashtra	Rs. 54,72,000/-	12 months	Ongoing

35	Hydro geological study of Khargone Super Thermal Power Project of NTPC Ltd	CS-86/2015-16/NIH(HID)	NTPC Gadarwada	Rs. 46,74,000.00/-	9 months	Ongoing
36	Hydro geological study for Harduaganj, 1x660 MW HTPS Distt Aligarh, UP	CS-87/2015-16/NIH(HID)	UPRVUNL Ltd	Rs. 49,20,000.00/-	12 months	Ongoing
37	Hydro-Geological studies for the proposed Bhadradi Thermal PPower Project, Manuguru, Telangana	CS-88/2015-16/NIH(Kakinada)	TSGENCO, Hyderabad	Rs. 32,00,000.00/-	8 months	Ongoing
38	Hydrological Study for development of Dheerpur and Rohin campuses of Ambedkar University	CS-89/2015-17.NIH(SWHD)	Ambedkar University Delhi	Rs 22,53,780.00	Two years	Ongoing
39	Isotopic/Hydro geological investigation of 1x660 MW PTPS Distt Kanpur, UP	CS-90/2015-16/NIH(HID)	UPRVUNL Ltd	Rs. 48,09,000.00/-	12 months	Ongoing
40	Hydrological Studies and Multi Reservoir Simulation for the proposed Mahanadi-Godavari LinkMahanadi	CS-91/2016-16/NIH(WRSD)	NWDA	Rs 18,11,000 +Service tax		Ongoing
41	Dam Break Analysis for Teesta Low Dam-III	CS-92/2016-16/NIH(WRSD)	NHPC Ltd	Rs 14,49,510.00	5 months from the date of release of advance	Ongoing
42	Dam Break Analysis for preparation of EAP & Imundation map Teesta –V	CS-93/2016-16/NIH(WRSD)	NHPC Ltd	Rs 14,55,868.00	-	Ongoing
43	Establishment of silt conservation post in the Bagalihar HEP catchment	CS-94/2016-17/NIH(Jammu)	Deptt of soil & Water conservatio n, Narwal, Jammu	Rs 6,49,215.00	6 months	Ongoing
44	Flood plain zoning for safe habitation and commercial construction along the river banks in Uttarakhand	CS95/2016-17/NIH(WRSD)	IRI Roorkee	Rs 19,46,500.00	4 months	Ongoing
45	Hydro-geological investigations in MRM Campus	CS96/2016-17/NIH (Belgaum)	MRPL Mangalore	Rs 50,19,000.00	Twelve months	Ongoing
46	Study on Ash Disposal from Telangana	CS/97/2016-17/NIH(EHD)	NTPC Telangana	Rs 54,96,000.00	Twelve months	Ongoing
47	Dam Break Analysis for preparation of EAP & Imundation map (Rangit)	CS-98/2016-17/NIH(WRSD)	NHPC Ltd	Rs 14,55,868.00		Ongoing