

Appendix-VIII
SCIENTIFIC STUDIES

WORK PROGRAMME OF NIH FOR THE YEAR 2008-09

WORK PROGRAMME OF NIH (H.Q.) FOR THE YEAR 2008-2009

S.No. & Ref. Code	Title of the Project/Study	Study Group	Duration	Funding Agency
1. NIH/EHD/ NIH/07-10	Mathematical models and soft computing techniques for water quality simulation and estimation of regional low flow values at river basin scale	Ramakar Jha, V.K. Choubey Rakesh Kumar A.K. Lohani	3 years (10/07 – 09/10)	NIH
2. NIH/EHD/ NIH/06-08	Hydrological Studies for Restoration of the Renuka Lake, District Sirmaur (HP)	Omkar Singh V.K. Choubey, R. Jha, S.D. Khobragade M.K. Sharma, S. P. Rai	3 Years (04/06- 03/09)	NIH
3. NIH/EHD/ NIH/07-10	Modelling of Pesticide Transport in Ground Water – a case study of Metropolitan City – Vadodara	M.K. Sharma S V N Rao V K Choubey	3 years (10/07– 09/10)	NIH
4. NIH/GWD/ NIH/07-09/	Approximations of well functions for leaky aquifers and large diameter wells.	S. K. Singh	2 years (04/07– 03/09)	NIH
5. NIH/GWD/ NIH/07-09/	Quantification of impact of rainwater harvesting on groundwater availability in the Aravalli Hills.	Anupama Sharma N. C. Ghosh C. P. Kumar Sudhir Kumar Rajan Vatsa	3 years (04/07– 03/10)	NIH
6. NIH/GWD/ NIH/07- 6/08	Hydrological and hydrogeological investigations to assess causes of seepage from the reservoir of Jaswant Sagar Dam in Jodhpur, Rajasthan	N.C. Ghosh P K Majumdar, C P Kumar Sudhir Kumar, Anupma Sharma, R Vasta, M Sharma	1year (07/07- 06/08)	Govt. of Rajasthan
7. NIH/HID/ UYRB/06- 08	SW and GW Interaction at Selected Locations Along River Yamuna in NCT, Delhi	Sudhir Kumar, SVN Rao, M. S. Rao P. K. Garg	3 years (04/06– 03/09)	UYRB
8. NIH/HID/ DST/07-12	National programme on isotope fingerprinting of waters of India (IWIN)	M.S. Rao, B. Kumar Sudhir Kumar S.P. Rai, S.K. Verma Pankaj Garg	5 years (07/07 – 06/12)	DST
9. NIH/HID/ FRI/08-13	Impact Assessment of Landuse on the Hydrologic Regime in the selected Micro-watersheds in Lesser Himalayas, Uttarakhand	S.P. Rai Bhishm Kumar J.V. Tyagi	5 years (04/08– 03/13)	FRI

10. NIH/HID/ INCID/08- 11	Estimation of irrigation return flow in parts of the selected canal command areas in Uttarakhand and Uttar Pradesh.	Bhishm Kumar M S Rao, S.K. Verma Pankaj Garg	3 years from the date of approval	INCID
11. NIH/HID/ CGWB/08- 10	Identification of recharge zones and origin of groundwater in Deeper Aquifers of Chandigarh and Punjab State	M.S. Rao Bhishm Kumar Sudhir Kumar + CGWB Officials	2 years (04/08- 03/10)	NIH/ CGWB
12. NIH/HID/ THDC/08- 09	Identification of source of seepage and location of seepage in Tehri Dam using isotopic technique	S.P. Rai Bhishm Kumar, Sudhir Kumar, S.K. Verma Pankaj Garg + THDC Officials	1 year (04/08- 03/09)	THDC
13. NIH/HD/D ST/05-10/5	Integrated hydrological study for sustainable development of two hilly watersheds in Uttaranchal	A Aggarwal RP Pandey, SK Singh SP Rai	5Years (04/05- 03/10)	DST
14. NIH/AHD/N IH/07-10/1	Hydrological studies in a forested watershed in Uttaranchal	J.V. Tyagi RP Pandey D Singh	3 Years (04/07- 03/10)	NIH
15. NIH/SWD/ NIH/07-09	Modelling of suspended sediment concentration using ANN	A.R. Senthil Kumar A Aggarwal RD Singh	2 Years (04/07- 03/09)	NIH
16. NIH/SWD/ NIH/07-09	Runoff and sediment modeling in a part of the Brahmaputra River Basin in India using ANN	Archana Sarkar RD Singh Nayan Sarma	2 Years (04/07- 03/09)	NIH
17. NIH/SWD/ NIH/08-09	Melt runoff characteristics and modeling stream flow for the Gangotri Glacier	Manohar Arora SP Rai	4 Years (04/08- 03/12)	NIH
18. NIH/SWD/ NIH/06- 09/9	Forecasting of stream flow for Sutlej River at Bhakra	Manohar Arora RD Singh, AR Senthil Kumar	3 Years (04/06- 3/09)	NIH
19. NIH/SWD/ NTPC/06- 08	Study of glacier contribution in the stream flow of the Bhagirathi River at Loharinag Pala Power Project and its influence on long-term sustainability	R.D. Singh Manohar Arora Renoj Thayyen	2 Years (12/06- 11/08)	NTPC
20. NIH/SWD/ NTPC/06- 08	Study of glacier contribution in the stream flow of the Dhauliganga at Tapovan Vishnugad Power Project site and its influence on long-term sustainability	R.D. Singh Manohar Arora Renoj Thayyen	2 Years (12/06- 11/08)	NTPC
21. NIH/SWD/ NIH/08-09	Impact of climate change on the flow characteristics of one of the selected sub-basin of Indus river system	A.K.Lohani Manohar Arora, Sanjay Kumar, Archana, R.D. Singh	1 year (04/08- 03/09)	NIH
22. NIH/SWD/ NIH/08-09/	Impact of climatic change on the flow characteristics of a sub-basin of Ganga Basin	Sanjay Kumar R. D. Singh, Rakesh Kumar	1 year (02/08- 03/09)	NIH

23. NIH/ WRSD/ NIH/04-07	DSS (Planning): Decision Support System (Planning) for Integrated Water Resources Development and Management	<i>Sharad K. Jain</i> A.K. Lohani, Deepa Chalisgaonkar, C.P. Kumar, M.K. Goel, R. Jha, Vijay Kumar, R.P. Pandey, P.K. Bhunya, Sanjay Kumar Anupama Sharma	5 years (04/07-03/12)	HP-II
24. NIH/ WRSD/ NIH/06-09	Use of remote sensing in soil moisture and water balance estimation- a case study of the Solani Catchment	Sanjay K. Jain Sharad Jain, J.V. Tyagi IIRS Dehradun	3 years (04/06-03/09)	NIH
25. NIH/ WRSD/ NIH/06-09	Impacts of dams and diversions on hydrology	Sharad K. Jain Sanjay K Jain, D S Rathore P.K. Bhunya, Rama Mehta	3 years (04/06-03/09)	NIH
26. NIH/WRSD / NWDA /06-07	Hydrologic studies for the Ken-Betwa Link Project	Sharad K. Jain Vijay Kumar, P.K. Bhunya N. Panigrahi, Sanjay K Jain R.D. Mehta	2 year (09/06-12/08) (extended)	NWDA
27. NIH/WRSD / NIH/ 07-09/	Development of empirical methods for assessment of the reservoir sedimentation	Sanjay K. Jain Sharad K. Jain	2 years (04/07-03/09)	NIH
28. NIH/WRSD / DST/07-09	Real-time flood inundation mapping in the Sabarmati Basin	Sharad K. Jain D.S. Rathore, Vijay Kumar P.K. Bhunya, N. Panigrahy	1 year (07/07-06/08)	DST
29. NIH/WRSD / PDS (HP-II)/ 08-12	Integrated approach for modeling snowmelt runoff and effects of climate change in Beas basin	Sanjay K. Jain Sharad K. Jain, Vijay Kumar, M.K. Goel	4 years (04/08-03/12)	HP-II
30. NIH/WRSD / PDS (HP-II)/ 08-12	Hydrological assessment of ungauged catchments (small catchment)	P.K. Bhunya Rakesh Kumar, Sharad K. Jain, D.S. Rathore, N. Panigrahy, RC, Kakinada Director (Hyd. & W.R. Plg-I), Govt. of Orissa	4 Years (04/08-03/12)	HP-II
31. NIH/WRSD / NIH/08-10	Web-based River Basin Information System for India	Sharad K. Jain Deepa Chalisgaonkar D.S. Rathore N. Panigrahy	2 years (04/08-03/10)	Internal

**WORK PROGRAMME OF NIH REGIONAL CENTRES AND
CFMS FOR THE YEAR 2008-09**

A. Hard Rock Region Centre, Belgaun

SN & Ref. Code	Title	Study Team	Duration	Funding source
1	Hydrological impact of land-use changes in Humid Tropical Watersheds located in the Sahayadri Mountains	B.Venkatesh, B.K. Purandara	3 years (04/06-03/09)	NIH
2	Integrated Water Resource Management for Manimala River Basin, Central Kerala	Chandramohan T., B.Venkatesh & N. Varadarajan.	3 years (07/08-06/10)	NIH
3	Environmental Flow Requirements for Bhadra Basin in Karnataka	B.K.Purandara, Chandramohan.T., M.K. Jose and N. Varadarajan.	3 years (07/08-06/10)	NIH
4	Assessment of Groundwater Vulnerability in the State of Kerala	M.K.Jose, Chandrakumar	3 years (07/08-06/10)	NIH
5.	Water Balance Studies of the Forested Watersheds, Western Ghats, India	B. Venkatesh. B.K. Purandara, and Dr. S.K. Jain	3 years (4/07-3/10)	DST

B. Western Himalayan regional centre, Jammu

1	Development of a Flood Forecasting Model for the Chenab Basin	M. K. Goel R. J. Thayyen Sharad K. Jain	2 years (4/07-3/09)	NIH
2	Estimation of aerial and volumetric changes for selected glaciers in Jammu & Kashmir	R. J. Thayyen M. K. Goel	2 years (4/07-3/09)	NIH
3	Trend analysis of hydrological variables in western Himalayan region - Phase I (J & K)	M. K. Goel R. J. Thayyen, Vijay Kumar Sharad K. Jain	2 year (4/08-3/10)	NIH

C. Ganga Plains South Regional Centre, Sagar

1	A Comprehensive Watershed Management Plan for a Degraded Watershed in Bundelkhand Region	T. Thomas, R.K. Jaiswal, R. V. Galkate, S. Singh	3 years (07/06-06/09)	NIH
2.	Integrated water resources management plan for catchment and command of Benisagar and Rangawan reservoirs in Madhya Pradesh.	R.K. Jaiswal, T. Thomas, R. V. Galkate, S. Singh	3 years (07/08-06/10)	NIH

D. Deltaic Regional Centre, Kakinada

1.	A study on spatial and temporal hydrological aspects for water resources planning and management of an urban area (Kakinada) along the coastal region	S.V. Vijaya Kumar B Krishna	4 years (04/05-03/09)	NIH
----	---	--	--------------------------	-----

2.	Study on Pre and Post project Scenarios and IWRM under Pushkar Canal Command Area in Andhra Pradesh.	S.V. Vijaya Kumar, Y.R. Satyaji Rao, V.S. Jayakantham, P.C.Nayak, B.Krishana Bhishm Kumar	2 Years (04/08- 12/08)	NIH
3.	Development of appropriate model for Krishna sub basin for predicting the flow series under varying climatic conditions.	P. C. Nayak, Y. R. Satyaji Rao, B. Krishna	9 months (04/08- 12/08)	NIH
4.	Storm water management in Cooum sub basin, Chennai Corporation, Chennai, Tamilnadu	Y.R. Satyaji Rao, S.V. Vijaya Kumar, B. Kumar V.S. Jeyakanthan, B.Krishna, P.C.Nayak	4 years (06/08- 03/12)	Under HP II (PDS)
5.	Reservoir Capacity Estimation using Sub-pixel Classification Approach.	V.S.Jeyakanthan, Y.R.Satyaji Rao,	1 year (06/08- 05/09)	NIH
6	Development of non-linear data driven models for flood forecasting for Indian rivers	P. C. Nayak, Y. R. Satyaji Rao, B. Krishna	3 year (07/05- 09/08)	DST

A. Centre for Flood Management Studies, Guwahati

1.	Modelling non-point source pollution	C. K. Jain A. Bandyopadhyay B. C. Patwary Aditi Bhadra, NERIST	3 Years (05/08- 04/10)	NIH
2.	Technological options for the removal of arsenic with special reference to North East Region	C. K. Jain B. C. Patwary	1 Year (07/07- 06/08)	NIH
3.	Flash Flood Studies (Jiadhal Basin)	S. R. Kumar Rakesh Kumar Pankaj Mani Brahmaputra Board	2 Years (07/07- 06/09)	NIH
4.	Flood inundation mapping and flood risk zoning for a reach of river Barak (Harang)	A. Bandyopadhyay D. S. Rathore B. C. Patwary	3 Years (06/06- 05/09)	NIH
5.	Flood plain zoning/flood hazard mapping of rivers of Arunachal Pradesh	A. Bandyopadhyay D. S. Rathore B. C. Patwary	3 Years (07/07 - 3/10)	NIH

B. Centre for Flood Management Studies, Patna

1	Urban Hydrology of Patna town.	R. Venkata Ramana, N. G. Pandey, Biswajit Chakravorty, Pankaj Mani	3 years (04/06 - 03/09)	NIH
2	Shifting characteristics of Kosi river	Biswajit Chakravorty, Pankaj Mani, N. G. Pandey, R. Venkata Ramana	1 year (10/08- 09/09)	NIH

3	Shifting characteristics of Bagmati river	N. G. Pandey, R. Venkata Ramana, Biswajit Chakravorty, Pankaj Mani	1 year (10/08-09/09)	NIH
4	Shifting characteristics of Daha river	Pankaj Mani, Biswajit Chakravorty, N. G. Pandey, R. Venkata Ramana	1 year (10/08-09/09)	NIH
