

Minutes of 78th meeting of Technical Advisory Committee of National Institute of Hydrology, Roorkee held on 8th August, 2024 through Hybrid mode

The 78th meeting of the Technical Advisory Committee (TAC) of the National Institute of Hydrology (NIH), Roorkee was held through Hybrid mode on 8th August, 2024. The meeting was Chaired by Shri Kushvinder Vohra, Chairman, Central Water Commission (CWC). The list of the participants is given in Annexure-I.

Dr. M. K. Goel, Director, NIH first welcomed the Chairman and members of the TAC and other invitees to the meeting. After a round of brief introduction of members, invitees and Divisional Heads of NIH, the Director invited the Chairman for his opening remarks. The Chairman emphasized on the importance of this meeting and requested the members to give their observations, suggestions and remarks on the agenda items and scientific activities of the Institute. Subsequently, he requested to take up the agenda items of the meeting. The Member-Secretary and Head, Technical Cell of NIH, Dr. Sanjay Kumar, Scientist "F" then took-up the agenda items of the meeting. The suggestions/observations of the members on the agenda items are summarized in Annexure-II. The agenda-wise discussions during the meeting are as follows:

ITEM NO. 78.2: Confirmation of the minutes of 77th meeting of TAC

The Member-Secretary informed that minutes of the 77th meeting of TAC, held on February 19, 2024 through online mode, were circulated to all the members and invitees on 7th August, 2024. No comments were received from the members and the minutes were confirmed by the TAC.

ITEM NO. 78.3: Actions taken on decisions/recommendations in the previous meeting

The Member-Secretary presented the actions taken on the comments and suggestions of the members during the 77th meeting. He informed that TAC had recommended five action points during the meeting. The point-wise details of the actions taken by the Institute were elaborated in the meeting. Following suggestions/observations were made by the members:

S. No. 2 & 4: The Chairman suggested to finalize the MoU (related to the comparison of different discharge measurement techniques) between CWC, NIH, and CWPRS at the earliest. It was informed that draft MoU has been prepared and it is presently being reviewed by CWPRS. Further, it was informed that 5 CWC gauging locations have been identified for detailed discharge measurement by various contact and non-contact-based techniques. The Chairman suggested to increase the number of test sites in the future.

S. No. 3: With regard to the trainings of Scientists of NIH in various disciplines, it was informed that a Training Cell has been set-up in NIH in this year which is monitoring the training activities of NIH Scientists as well as the training courses conducted for various water resources professionals and research scholars. The Chairman emphasized to develop a

structured framework so that trainings to different Scientists can be imparted on emerging advanced topics as well as in their areas of specializations with greater focus on hands-on sessions/exercises. Further, a mechanism may be devised to follow up with the trained officers to get feedbacks on the usefulness of the trainings and to plug shortcomings, if any.

ITEM NO. 78.4: Status of the work programme for the year 2023-24

The Member-Secretary briefly mentioned about the studies carried out by the Institute during the year 2023-24. He presented the list of 22 studies, including internally and sponsored studies, which were completed during 2023-24. The details of the publications by the Institute in various international/national journals and conferences were also provided. It was mentioned that a total of 50 training courses/workshops/brain storming sessions were organized/attended by the Scientists of the Institute during the year.

The Chairman appreciated the achievements made by NIH during the year and desired that a 1-2 days meeting detailing the outcome of various studies may be organized in near future at NIH, Roorkee. Director, NIH informed that it is planned to organize a 1-2 days workshop at NIH, Roorkee show-casing the major achievements of the Institute to various related departments of Central/State Govt. and Academic Institutes. The Member-Secretary emphasized that various studies of different Divisions are detailed in working group meeting of the Institute and members of TAC can join such meeting for comprehensive inputs. TAC noted the progress of the studies/projects of the Institute during the year 2023-24. Comments/suggestions from other members are summarized in Annexure-II including the comments received through mail.

NIH had planned for brief presentations of various Divisions and Regional Centres showcasing their major areas of work during the year. The Chairman suggested to send the presentations to all the TAC members for their information and any clarification.

ITEM NO. 78.5: Proceedings of the Working Group and Regional Coordination Committees (RCC)

The Member-Secretary briefly mentioned about the 54th meeting of the Working Group of NIH which was held during 22-23 February, 2024 and the RCC meetings held in different Regional Centers at different times. During these meetings, the Working Group/RCC members reviewed the progress of studies for the year 2023-24 and recommended the work program for the year 2024-25. The TAC noted the proceedings of 54th WG and various RCC meetings of different Regional Centres.

ITEM NO. 78.6: Work Program for the year 2024-25

The Member-Secretary briefly informed about the proposed work programme of the Institute for the year 2024-25 which was discussed and recommended during the 54th Working Group meeting and various RCC meetings of NIH. The TAC approved the work programme of the Institute for the year 2024-25 is presented in Annexure - III.

ITEM NO. 78.7: Major projects and activities

The Member-Secretary informed that following two major R&D projects are currently ongoing at NIH:

1. National Hydrology Project (NHP) - funded by The World Bank & MoJS
2. Innovation Centre for Eco-Prudent Wastewater Solutions (IC-EcoWS) - funded by DST.

The Member-Secretary briefly mentioned about the various activities undertaken under these projects. The Chairman suggested to have detailed presentations on the activities of Centre of Excellence for Hydrological Modeling (CEHM) and the IC-EcoWS project in the next meeting of TAC. It was informed that the same would be covered in the National Workshop which is planned to be organized by the end of this year to showcase the major activities of NIH.

ITEM NO. 78.8: Reporting Items

The Member-Secretary informed that the NIH has completed 14 consultancy projects and 101 Consultancy Projects are currently ongoing during the year 2023-24, as sponsored by various agencies. The Chairman enquired about the revenue generated by NIH during last five years. It was informed that the data would be compiled and presented in the next meeting.

ITEM NO. 78.9: Additional items with the permission of the Chair

No such items were discussed.

The meeting ended with a vote of thanks to the Chair.

List of Participants in the 78th Meeting of TAC of NIH

1. Sh. Kushvinder Vohra, Chairman, CWC	In-chair
2. Sh. Bhopal Singh, Member (D&R), CWC	Member
3. Sh. Manoj Tiwari, CE, HSO, CWC	Member
4. Dr. M. K. Goel, Director, NIH	Member
5. Prof. K. V. Jayakumar, IIT, Dharwad	Member
6. Prof. M. K Jain, DoH, IIT, Roorkee	Member
7. Dr. Suhas Wani, IRRI, SARC, Varanasi	Member
8. Prof. Rohit Goyal, Civil Engg. Dept., MNIT, Jaipur	Member
9. Prof. Arup Sarma, IIT Guwahati	Member
10. Ms. Manjusha Mishra, NHPC	Member
11. Dr. Sanjay Kumar, Sc. F & Head, Technical Cell, NIH	Member-Secretary

Invitees

1. Dr. A. K. Lohani, Sc. G & Head, SWH Div., NIH, Roorkee
2. Dr. Y. R. S. Rao, Sc. G & Head, EH Div., NIH, Roorkee
3. Dr. Suhas Khobragade, Sc. G & Head, HI Div. NIH, Roorkee
4. Dr. A. R. Senthil Kumar, Sc. G & Head, WRS Div., NIH, Roorkee
5. Dr. Anupma Sharma, Sc. G & Head, GWH Division, NIH, Roorkee
6. Dr. Surjeet Singh, Sc. G & Head, C4S, NIH, Roorkee
7. Dr. B. Venkatesh, Sc. G & Head, HRRC-Belagavi
8. Dr. Pankaj Mani, Sc. G & Head, CFMS-Patna
9. Dr. M. S. Rao, Sc. G, NIH, Roorkee
10. Dr. Ravi Galkate, Sc. F & Head, CIHRC-Bhopal
11. Dr. R. K. Jaiswal, Sc. F, NIH, CIHRC-Bhopal
12. Dr. P. C. Nayak, Sc. F, NIH, Roorkee
13. Dr. Archana Sarkar, Sc. F, NIH, Roorkee
14. Dr. M. K. Sharma, Sc. F, NIH, Roorkee
15. Dr. Soban Singh Rawat, Sc. F, NIH, Roorkee
16. Dr. Sanjay Kumar Sharma, Sc. E, NERC-Guwahati
17. Dr. P. G. Jose, Sc. E & Head, WHRC-Jammu
18. Dr. M. K. Nema, Sc. E, NIH, Roorkee
19. Dr. R. V. Kale, Sc. E, NIH, Roorkee
20. Shri J. P. Patra, Sc. E, NIH, Roorkee
21. Dr. L. N. Thakural, Sc. E, NIH, Roorkee
22. Dr. Sumant Kumar, Sc. E, NIH, Roorkee
23. Dr. Rajesh Singh, Sc. E, NIH, Roorkee
24. Dr. Ashwini A. Ranade, Sc. D, NIH, Roorkee
25. Dr. P. K. Mishra, Sc. D, NIH, Roorkee
26. Dr. Vinay K. Tyagi, Sc. D, NIH, Roorkee
27. Dr. S. M. Pingale, Sc. D, NIH, Roorkee
28. Dr. Sunil Gurrupu, Sc. D, NIH, Roorkee

29. Dr. Vishal Singh, Sc. D, NIH, Roorkee
30. Ms. Shashi P. Indwar, Sc. D, CIHRC-Bhopal
31. Dr. Tripti M., Sc. D, NIH, Roorkee
32. Dr. Prasanta K. Sahoo, Sc. D, NIH, Roorkee
33. Dr. Luvkush K. Patel, Sc. D, NIH, Roorkee
34. Dr. Surinaidu Lagudu, Sc. D, NIH, Roorkee
35. Dr. Kapil Kesarwani, Sc. D, NIH, Roorkee
36. Dr. Surinaidu Lagudu, Sc. D, NIH, Roorkee
37. Dr. Nitesh Patidar, Sc. C, NIH, Roorkee
38. Dr. Deepak S. Bisht, Sc. C, NIH, Roorkee
39. Dr. Akshaya Verma, Sc. C, NIH, Roorkee
40. Dr. Umesh K. Singh, Sc. C, NIH, Roorkee
41. Dr. Kuldeep Sharma, Sc. C, NIH, Roorkee
42. Dr. Ajit K. Behera, Sc. C, NIH, Roorkee
43. Dr. Pravin R. Patil, Sc. C, NIH, Roorkee
44. Dr. Sukant Jain, Sc. C, NIH, Roorkee
45. Dr. Sushindra K. Gupta, Sc. C, NIH, Roorkee
46. Dr. Ajay Ahirwar, Sc. C, NIH, Roorkee
47. Er. Ruchir Patidar, Sc. B, NIH, Roorkee
48. Dr. Satendra Kumar, Sc. B, NIH, Roorkee
49. Sh. Rajat Kumar, Sc. B, NIH, Roorkee
50. Dr. Shailendra Kumre, Sc. B, NIH, Roorkee
51. Sh. Pintu K. Gupta, Sc. B, NIH, Roorkee
52. Sh. Harsh Upadhyay, Sc. B, NIH, Roorkee
53. Dr. Amit Pandey, Sc. B, NIH, Roorkee
54. Sh. Vipin Kumar Agarwal, Sc. B, NIH, Roorkee
55. Sh. Rajesh Agarwal, Sc. B, NIH, Roorkee

Gist of major discussion points by the TAC members

S. No.	Member	Suggestion(s)
1.	Sh. Kushvinder Vohra, Chairman, CWC	<ul style="list-style-type: none"> • Emphasized for a long-term study. Enquired about the scope, objectives, and individual components of the Yamuna basin study. He suggested to involve other Institutes (CWC, CWGB, NRSC, NMCG) and have a brain-storming session involving YBO of CWC and various stakeholders. • Suggested to invite representatives from NMCG, CGWB, CWPRS, and NRCD to TAC/WG/RCC meetings to avoid duplication. • Enquired about the outcome of IC-EcoWS project and their ability to remove toxicants.
2.	Prof. Rohit Goyal, MNIT Jaipur	<ul style="list-style-type: none"> • Suggested to identify some cities for urban flood studies and artificial recharge impact assessment on GW levels.
3.	Sh. Bhopal Singh, Member (D&R), CWC	<ul style="list-style-type: none"> • Enquired about the latest technology updates with regard to regional flood frequency analysis and suggested to take up some studies in collaboration with CWC.
4.	Prof. K. V. Jayakumar, IIT - Dharwad	<ul style="list-style-type: none"> • Suggested for the active participation of WALMI and WTC in NIH activities for their wider dissemination and use.
5.	Prof. Arup Sarma, IIT - Guwahati	<ul style="list-style-type: none"> • Remarked on the constructed wetlands and their performance.
6.	Prof. M. K. Jain, DoH, IIT - Roorkee	<ul style="list-style-type: none"> • Informed about the measurement of discharge using non-contact techniques in Upper Ganga basin in collaboration with CWC.

Recommended Work Program of the Institute for the Year 2024-25
Centre for Cryosphere and Climate Change Studies (C4S)

S. No.	Title of Project/Study	Study Team	Duration	Funding
Internal Studies (Ongoing)				
1.	Ascertaining the efficacy of use of State-of-the-art technologies for spring mapping and sustainability of springs through suitable interventions	S S Rawat (PI) S M Pingale P K Mishra D S Bisht Rajesh Singh	3 years (04/22-03/25) Ongoing	NIH
2.	Geo-Hydro-Chemical and Isotopic Aspects of occurrence of Springs: A case study from the major settlement areas of Bhagirathi basin, Uttarakhand, India	S S Rawat (PI) Suhas Khobragade M K Sharma M S Rao S M Pingale P K Mishra	03 Years (04/23 - 03/26) Ongoing	NIH
3.	Climate Change Scenarios for Andhra Pradesh and its impact on streamflow and groundwater levels in Pennar River Basin	Sunil Gurrapu (PI) Y R S Rao R V Ramana Nitesh Patidar TVNAR Kumar, CE, WRD, GoAP	02 years (04/22-09/24) Ongoing	NIH
4.	Real time monitoring of snow-glacier related parameters and Ensemble Hydrological Modeling (EHM) to study the Triloki Group of Glaciers and Khatling glaciers part of Western Himalaya, India under climate change scenarios	Vishal Singh (PI) Surjeet Singh Sunil Gurrapu Lavkush Patel Akshaya Verma Madhusudan Thapliyal	05 Years (03/23-02/28) Ongoing	NIH
5.	Investigation on occurrences of extreme rain events across Northwest Himalaya in relation to global atmospheric thermal and circulation changes	Ashwini Ranade (PI) P K Mishra Sunil Gurrapu	03 years (04/22-03/25) Ongoing	NIH
6.	Early Signatures of 21st Century on Snow Cover Dynamics in Zaskar River Basin, Ladakh	D S Bisht (PI) P G Jose	03 years (07/21-06/24) Ongoing	NIH
7.	Comparative Analysis of Fine Scale Satellite & Reanalysis Precipitation Products in Upper Ganga Basin using Multicriterion Decision-Making	D S Bisht (PI) M K Goel	02 years (06/22-06/24) Ongoing	NIH
8.	Monitoring and Modelling of the Gangotri glacier catchment under different Climate Scenarios	Lavkush Kr Patel (PI) Akshaya Verma Vishal Singh Kapil Kesarwani Surjeet Singh Jatin Malhotra	03 years (04/23-03/26) Ongoing	NIH

S. No.	Title of Project/Study	Study Team	Duration	Funding
Internal Studies (New)				
9.	Updation of Glaciers and Glacial Lakes in Indian Himalayan Region	Surjeet Singh (PI) Vishal Singh Lavkush Kr Patel Akshaya Verma M. Thapliyal	02 years (04/24-03/26) New	NIH
10.	Assessment of Hydrological Extremes and Impact on Future Water Availability in Pennar River Basin under Changing Climate	Sunil Gurrapu (PI) Surjeet Singh Vishal Singh Y R S Rao R V Ramana M. Thapliyal TVNAR Kumar, CE, WRD, GoAP	01 year (04/24-03/25) New	NIH
11.	Glacio-hydrological and GLOF investigations over the Triloki glacier, Bhaga basin, Western Himalaya	Lavkush Kr Patel (PI) Akshaya Verma Vishal Singh Surjeet Singh	03 years (03/24-03/27) New	NIH
12.	WRF-based dynamical downscaling of CMIP6 climate projections over Himalaya and surrounding Region	Kuldeep Sharma (PI) Ashwini Ranade Sahidul Islam, Associate Director, CDAC, Pune	03 years (04/24-03/27) New	NIH
13.	Integrated long-term monitoring of Khatling Glacier, Bhilangana basin, Uttarakhand	Akshaya Verma (PI) Vishal Singh Sunil Gurrapu Lavkush Patel Surjeet Singh	04 years (04/24-03/28) New	NIH
14.	A Spatially Explicit Assessment of CMIP6 General Circulation Models for the Indian Himalayan Region	Deepak Singh Bisht (PI) Nitesh Patidar SS Rawat Surjeet Singh	02 years (04/24-03/26) New	NIH
15.	Climate change impacts on water resources availability and hydropower potential assessment in the Himalayan Satluj river basin (up to Kasol).	Rajat Kumar (PI) Vishal Singh Surjeet Singh Shakti Suryavanshi	02 years (04/24-03/26) New	NIH
16.	Influence of Climate Change and Future Response of the Milam Glacier (Central Himalaya, India): Science - Practice - Policy	Kapil Kesarwani (PI) Surjeet Singh Lavkush Kumar Patel D S Bisht Akshaya Verma Madhusudan Thapliyal	03 years (04/24-03/27) New	NIH
Sponsored/Collaborative Projects				
1.	Assessment of glacier-climate functional relationships across the Indian Himalayan region through long-term network observations	Vishal Singh, Lead Co-PI, NIH Roorkee	03 years (12/23-11/26) Ongoing	Sponsored by NMHS- GBPNIHE

S. No.	Title of Project/Study	Study Team	Duration	Funding
2.	Satellite based mountain hazard assessment and monitoring (MHAM) in Uttarakhand, joint with IIRS Dehradun – Sponsored by IIRS	Vishal Singh (PI-NIH), R S Chatterjee (PI-IIRS), Praveen K Thakur, Pankaj R. Dhote	01 year (01/23-01/24) Ongoing	Sponsored by IIRS, Dehradun
Consultancy Studies				
1.	System Studies for Proposed Farakka-Sundarbans Link Project	Surjeet Singh (PI) M K Goel P K Singh P K Mishra Vishal Singh Nitesh Patidar	1.5 years (12/22-05/24) Ongoing	Sponsored by NWDA

Environmental Hydrology Division

S. No.	Study Title	Study Team	Duration/Status
Sponsored R&D Projects (Ongoing)			
1.	Innovation Centre for Eco-Prudent Wastewater Solutions (IC-EcoWS)	Omkar Singh (PI) Rajesh Singh (Co-PI) Jyoti P Patil V K Tyagi Kalzang Chhoden Rajesh Agarwal Partners: NIH, MNIT-Jaipur, IIT-Bombay, IRMA-Anand	5 Years (04/19 - 09/24) Extended up to 08/2024 Project Cost: 5.1 Crore Sponsored by: DST Status: In-progress
2.	Irrigation Efficiency Improvement for Medium Irrigation Project (MIP) Shahnehar, H.P.	R P Pandey (PI) J P Patra Rajesh Singh Shakti Suryavanshi S K Kumre	3 Years (12/17-06/24) Project Cost: 75 Lakh Sponsored by: NHP Status: In-progress
3.	Anaerobic Co-digestion of Thermochemically Pretreated Organic Fraction of Municipal Solid Waste and Sewage Sludge: Effect on Process Performance and Microbial Community Development	Vinay Kumar Tyagi (PI)	5 Years (2018-2024) Project Cost: 106 Lakhs Sponsored by: DBT Status: In-progress
Sponsored R&D Projects (New)			
4.	Development of innovative sewage treatment technology with minimum energy requirement	Vinay Kumar Tyagi (PI) Rajesh Singh (Co-PI) Partner: IIT Roorkee	Duration: 3 Yrs. (Mar 2024-Mar 2027) Cost: Rs. 97.50 Lakhs (THDC Ltd.)
5.	Innovative approach towards achieving energy self-sufficiency at municipal wastewater treatment plants thru hydrothermal pretreatment of sewage sludge and OFMSW	Vinay Kumar Tyagi (PI) Rajesh Singh (Co-PI) Partner: IIT Roorkee	Duration: 3 Yrs. (Mar. 2024-Mar. 2027) Project Cost: Rs. 98.50 Lakhs (THDC Ltd.)

S. No.	Study Title	Study Team	Duration/Status
Collaborative R&D Projects (Ongoing)			
6.	Isotopic and geochemical approach to study vulnerable confined and unconfined drinking water aquifers in Varanasi and surrounding area, India	Rajesh Singh (PI) R. P. Pandey Collaborators BHU, Varanasi (Lead) BARC, Mumbai, ICER, Hungary	3 Years (07/21-06/24) Sponsored by: BHU Status: In-progress
7.	Comprehensive characterization of variably processed sewage sludge in Ganga basin to classify its suitability for safe disposal	V K Tyagi, (Co-PI) A A Kazmi (PI, IITR)	02 Years (01/22-06/24) Sponsored by: CPCB, NMCG Status: In-progress
8.	SARASWATI 2.0 - Identifying best available technologies for decentralized wastewater treatment and resources recovery for India	V K Tyagi, (Co-PI) A A Kazmi (PI, IITR)	4 Years (03/20-06/24) Sponsored by: DST Status: In-progress
Internal Study (Ongoing)			
9.	Characterisation of Groundwater Dynamics in Krishna-Godavari Delta interims using groundwater levels, Hydrochemistry, Isotopes and Emerging Contaminants	M K Sharma (PI) Suhas Khobragade Rajesh Singh	2 Years (04/22-06/24) Status: In-progress
10.	Understanding arsenic mobilization in groundwater of Haridwar and formulating remediation measures	Rajesh Singh (PI) R P Pandey Sumant Kumar Pradeep Kumar M K Sharma V K Tyagi Kalzang Chhoden	3 Years (07/21-06/24) Status: In-progress
11.	Simulation of Non-Point Source Pollution Processes in Song River	Pradeep Kumar (PI) M K Sharma Rajesh Singh	4 Years (11/19-06/24) Status: In-progress
12.	Hydrological Studies for the Conservation of Rewalsar Lake	Kalzang Chhoden (PI) Rajesh Singh R P Pandey Pradeep Kumar V K Tyagi Omkar Singh DS Malik, GKU, Haridwar	3 Years (12/22-11/25) Status: In-Progress
13.	Comprehensive evaluation of disinfection units of STPs in Ganga basin: Occurrence and control the formation of emerging oxidation precursors	V K Tyagi (PI) Rajesh Singh M K Sharma Pradeep Kumar J P Patra Kalzang Chhoden R P Pandey	3 Years (04/23 - 03/26) Status: In-Progress

S. No.	Study Title	Study Team	Duration/Status
Internal Study (New)			
14.	Nanotechnology-enabled Multifunctional Materials for the Detection and Remediation of Arsenic in Contaminated Water	P K Sahoo (PI) Rajesh Singh M K Sharma Pradeep Kumar V K Tyagi Sumant Kumar Kalzang Chhoden	3 Years (04/24 - 03/27)
15.	Land and water management plan for rejuvenation of Manorama River	Shakti Suryavanshi (PI) S K Kumre Pradeep Kumar Rajesh Singh M K Sharma V K Tyagi	3 Years (04/24 - 03/27)
16.	Groundwater Quality Assessment of Tripura with Special Reference to Arsenic and Fluoride	Rajesh Singh (PI) V K Tyagi M K Sharma P K Sahoo Kalzang Chhoden Shakti Suryavanshi S K Sharma Swapnali Barman W R Singh Rajib Paul (TSPCB)	3 Years (04/24 - 03/27)
17.	Comprehensive Hydrological Study for River Health Assessment and Development of Environmental Management Plan for River Yamuna	Pradeep Kumar (Lead-PI) and team of scientists from EHD, GWHD & HI	5 Years (04/24 - 03/29)
Consultancy Projects (Ongoing)			
18.	Water Quality Studies for Tehri Reservoir Tehri HPP (4x250MW)	Sudhir Kumar R P Pandey M K Sharma (PI) Pradeep Kumar Rajesh Singh S K Kumre	2 Years (02/23-01/25) Funded by: THDC, India Limited Cost: Rs. 6.91 Lakh Status: In-Progress
19.	Preparation of District/State Action Plans for Source Sustainability of Drinking Water Supply Schemes under Jal Jeevan Mission, Uttarakhand	R P Pandey (PI) Rajesh Singh (Co-PI) Pradeep Kumar M K Sharma V K Tyagi Kalzang Chhoden P K Sahoo Shakti Suryavanshi Shailendra Kumre	08 Months (10/23-06/24) Funded by: Uttarakhand Jal Jeevan Mission Cost: Rs. 1.06 Crore Status: In-Progress

Groundwater Hydrology Division

S. No.	Project	Project Team	Duration & Status	Funding
Internal Studies (Ongoing)				
1.	Studying arsenic genesis and developing alternate water supply management strategies in Ganga basin	Sumant Kumar (PI) Surjeet Singh Nitesh Patidar Rajesh Singh Gopal Krishan M K Sharma Vinay Tyagi Soban Singh Rawat P K Mishra	3 years (04/22 – 03/25) Status: In-progress	Internal Study
2.	Conjunctive Management of Water Resources in IGNP Command	Nitesh Patidar (PI) M. K. Goel Anupma Sharma Surjeet Singh Gopal Krishan Sumant Kumar	2 years (04/22 – 03/24) Status: In-progress	Internal Study
3.	Development of Archive of Soil Hydraulic Characteristics	Nitesh Patidar (PI) Surjeet Singh M. K. Goel Anupma Sharma	1 year (04/23 – 03/24) Status: In-progress	Internal Study
4.	Enhancement and application of NIH_WISDOM	Nitesh Patidar (PI) Deepak Singh Bisht M.K. Goel T. Thomas Sunil Gurrapu Anupma Sharma Surjeet Singh	2 years (10/23 – 09/25) Status: In-progress	Internal Study
Sponsored Projects (Ongoing)				
1.	Enhancing Food and Water Security in Arid Region through Improved Understanding of Quantity, Quality and Management of Blue, Green and Grey Water	Anupma Sharma (PI-NIH) Gopal Krishan Nitesh Patidar P K Mishra Partners: CAZRI Jodhpur (Lead), NIH Roorkee, IISWC Dehradun, CSWRI & CIAH, Bikaner, NIAM Jaipur	5 years (03/19 - 07/24) Status: In progress	DST
Sponsored Projects (New)				
1.	Use of deep learning models to understand the impact of climate and land use changes on future groundwater resources with a focus on data scarce regions.	L. Surinaidu (PI-NIH) (Lead: IIT Hyderabad, Partner: McGill University, Canada)	2 years 06/23-07/25 Status: New Study Transferred to NIH	DST-SERB

2.	Carriers of Mass Transport Contamination in Delhi, NCR	L. Surinaidu (PI-NIH) (Lead: NGRI, Hyderabad)	2 years 10/22-09/24 Status: New Transferred to NIH	MoES
Internal Studies (New)				
1.	Surface water-groundwater interactions through field techniques and hydrological modelling in Yamuna basin	Sumant Kumar (PI) Nitesh Patidar L. Surinaidu Pintu Gupta Ajit Kumar Behera Anupma Sharma Shailendra Kumre Gopal Krishan	3 years (04/24 – 03/27) Status: New Study	Internal Study
Major Project with sub-projects (S. No. 2 - 5)	Enhancing the Sustainability of Water Resources Through Integrated Assessment and Management Techniques in the LUNI River Basin – Rajasthan	Anupma Sharma (Project Coordinator) Scientists from GWH Div. & NWRC Jodhpur	3 years (04/24 – 03/27) Status: New Study	Internal Study
2.	Estimation of Soil Characteristics and Simulation of Groundwater Recharge in the Luni River Basin	Satendra Kumar (PI) Anupma Sharma L. Surinaidu Ajit K. Behera Pintu K. Gupta Nitesh Patidar	2 years (04/24 – 03/26) Status: New Study	Internal Study
3.	Hydrogeochemical Evolution and role of Paleochannels on groundwater quality in the Luni Basin	Ajit Kumar Behera (PI) L. Surinaidu Pintu Gupta Malkhan Singh Jatav Anupma Sharma M. K. Sharma Dr. A. H. Laskar (PRL)	3 years (04/24 – 03/27) Status: New Study	Internal Study
4.	Hydrogeological Investigations in the Luni River Basin	Pintu K Gupta (PI) L. Surinaidu Nitesh Patidar Ajit Kumar Behera Satendra Kumar Sudesh Chaudhary	2 years (04/24 – 03/26) Status: New Study	Internal Study
5.	Characterization and Modeling of Multi Aquifer System of Luni River Basin in Rajasthan Under Climate and Anthropogenic Influences	L. Surinaidu (PI) Anupma Sharma Ajit K. Behera Sumant Kumar Sudesh Chaudhary	3 years (04/24 – 03/27) Status: New Study	Internal Study

Hydrological Investigations Division

S. No.	Project Title	Study Team	Duration	Status
Internal Studies (Ongoing)				
1.	Assessment of the Possible Impact of Climate Change on Evapotranspiration for Different Climatic Regions of India	S D Khobragade (PI) Vishal Singh	3 years (04/22-03/25)	On-going
2.	Runoff and Water Storage Capacity Estimation for Deciding Rainwater Harvesting Strategies	S M Pingale (PI) Soban Singh Rawat S D Khobragade Rajeev Gupta	2 Years (04/23-03/25)	On-going
3.	Sedimentation and Water Quality Study of Fulhar Lake, Pilibhit (U.P.)	Rajeev Gupta (PI) S D Khobragade S M Pingale	2 Years (04/23-03/25)	On-going
Internal Studies (New)				
4.	Development of radiocarbon dating facility	Tripti Muguli (PI) Someshwar Rao Amit Pandey	1 year (04/24-04/25)	New Study
5.	Understanding Surface Water Groundwater Interactions in the Narmada River Basin and its Hydrological Implications	Amit Pandey (PI)	3 years (04/24-03/27)	New Study
6.	Hydrological and hydrogeological investigations in the Yamuna river basin using isotope techniques.	Tripti Muguli (Project Co-ordinator), Sahas Khobragade M. Someshwar Rao Ruchir Patidar Vipin Agrawal Amit Pandey	3 years (04/24-03/27)	New Study
7.	Fingerprinting of aquifer dynamics in India through isotopic and geochemical approach: demand driven investigations at regional scale under NAQUIM 2.0	Tripti Muguli (PI) S D Khobragade	3 years (04/24-03/27)	New Study
8.	Quantifying Current and Future Meteorological Drought Characteristics and Identifying Risk Zones in Central India.	S D Khobragade Ruchir Patidar (PI) S M Pingale, S D Khobragade	3 years (04/24-03/27)	New Study
Sponsored Projects				
1.	Groundwater Fluctuations and Conductivity Monitoring in Punjab -Groundwater resilience in Punjab and adaptation to future changes in climate and	Gopal Krishan)PI S Singh, M S Rao BGS, UK: Dr .Dan Lapworth	5 years 12/17-11/24(On-going

S. No.	Project Title	Study Team	Duration	Status
	water resource demands - title modified by funding agency	Dr Alan MacDonald Dr .Daren Goody BGS, UK		
2.	Expansion of the Indo-German Competence Centre for Riverbank Filtration –CCRBF	Gopal Krishan (PI & Co-coordinator) Federal Min. of Education and Research, Germany	3 years (07/20 – 03/24) (likely to be extended further)	On-going
3.	Partitioning Evapotranspiration into Evaporation and Transpiration fluxes using Stable Isotopes of Oxygen and Hydrogen	Gopal Krishan, PI M S Rao DST-SERB	3 years (04/21 – 03/24) (likely to be extended up to 10/2024)	On-going
4.	Changing the fate of the Hindon River by evaluating the impact of agriculture on the water balance: Developing a Template for a Cleaner Ganga River	M K Sharma (PI) Anjali Vishal Singh S M Pingale S D Khobragade Pradeep Kumar Nitesh Patidar Surjeet Singh	5 years (04/22- 03/27)	On-going

Surface Water Hydrology Division

S. No.	Title of Project/Study	Study Team	Duration	Funding
Internal studies (Ongoing)				
1.	Flood Forecasting under Changing Climate Conditions - Role of Machine Learning and Conceptual/Physical based Model	P. C. Nayak A. K. Lohani J. P. Patra Sunil Gurrapu T. Thomas Om Prakash Jatin Malhotra	03 Year (July 2022 - June 2025)	NIH
2.	Hydrological study for revival and restoration of traditional water bodies in Bikaner, Rajasthan	L. N. Thakural J. P. Patra M. K. Sharma R. K. Jaiswal P. K. Mishra Nitesh Patidar N. K. Bhatnagar Jatin Malhotra Anil Kumar Chhangani	02 Year (Apr 2022 - March 2024) (Extension required for Six months.ie upto Sep. 2024)	NIH

S. No.	Title of Project/Study	Study Team	Duration	Funding
3.	Review of design flood and dam break analysis of Khadakhai Dam in Odisha	J. P. Patra A. K. Lohani Pankaj Mani P. C. Nayak Sanjay Kumar	03 Year (April 2022 - March 2025)	NIH
4.	Investigation of hydrodynamic approach of flood inundation mapping along with assessment of changes in river planforms using a cloud-based Google Earth Engine (GEE) computing platform in data-scarce Western Himalayan River basin	R. V. Kale A. K. Lohani J. P. Patra D. Khurana	03 Years (September 2021- October 2024)	NIH
5.	Estimation of confidence intervals of index flow duration curves	Sanjay Kumar Sunil Gurrapu L. N. Thakural J. P. Patra	02 Years (April 2023 - March 2025)	NIH
6.	Hydrologic and hydraulic study for Jata Ganga river at Jageshwar dham	J. P. Patra A. K. Lohani Pankaj Mani D. S Bisht S. S. Rawat	01 Years (July 2023 - July 2024)	NIH
Sponsored Projects (Ongoing)				
1.	Operational coastal flood management through short-to-medium range (real-time) flood vulnerability mapping in the Brahmani-Baitarani River Basin integrating human and climate induced impacts	B. Sahoo (PI, IIT-Kgp) R. V. Kale (Co-PI)	04 years (July, 2020 – June, 2024)	STARS (MHRD, GoI)
Internal studies (New)				
1.	Entropy and Image Processing Based Non-Contact Discharge Monitoring Techniques: Testing and Implementation for Indian rivers	R. V. Kale M. K. Goel A. K. Lohani CWPRS: Dr. Selva Balan External Expert: Prof. M. Perumal	1.5 Years (April 2024 - September 2025)	NIH
2.	A Flood Forecasting Framework Coupling a High Resolution WRF Ensemble with 2D Hydrodynamics Model for Himalayan Mountainous Area.	R. V. Kale K. Sharma S. Kumar A. K, Lohani	03 Year (April 2024 - March 2027)	NIH
3.	Basin-scale, integrated water resources assessment through integrated hydrological modelling.	S. Sahoo A. K, Lohani P. C. Nayak R. V. Kale J. P. Patra	2.5 Years (April 2024 - September 2026)	NIH

S. No.	Title of Project/Study	Study Team	Duration	Funding
4.	Comprehensive Mapping of Water Budget Dynamics and Reservoir Sedimentation in the Upper Krishna Basin using Google Earth Engine.	Chandra Prakash A. K. Lohani R. V. Kale Richa Pandey	02 Years (April 2024 - March 2026)	NIH
5.	Water Resources Planning and Management using DSS (PM) under Changing Climatic and Land-Use Conditions	Richa Pandey Chandra Prakash Sukant Jain J. P. Patra R. K. Jaiswal A. K. Lohani	02 Years (April 2024 - March 2026)	NIH
6.	Web based platform for IDF Design Rainfall Estimates for India	Sukant Jain A. K. Lohani J. P. Patra Richa Pandey Chandra Prakash	1.5 Years (April 2024 - September 2025)	NIH

Water Resources Systems Division

S. No.	Title	Study Team	Duration	Funding
Sponsored Studies (Ongoing)				
1.	Snow and glacier contribution and impact of climate change in Teesta river basin in Eastern Himalaya	P K Singh Vishal Singh A K Lohani	3 years (11/19-11/22) Extended up to 03/24	NMHS- MoEF (143 Lakh)
2.	Development of Water Accounts for the different sub-basins of Brahmaputra and Barak River Basins in the state of Meghalaya Using Water Accounting Plus (WA+) Framework.	P K Singh P K Mishra	2 years (08/20-07/22) Extended up to 03/24	NHP (14.50 Lakh)
3.	Monitoring and Assessment of Mountain Ecosystem and Services in North-West Himalaya (Phase-II): Monitoring and Modeling of Hydrological Processes in Glaciated and Non-Glaciated Watersheds of North-West Himalaya	M K Nema P. K. Mishra P. R. Patil Praveen Thakur (IIRS)	3 years (04/22-03/25)	IIRS (30.91 Lakh)
Internal Studies (Ongoing)				
4.	Development of Water Accounts for the selected sub-basins of Brahmaputra, Barak and Irrawady-Chindwin basins in the state of Nagaland using Water Accounting Plus (WA+) Framework.	P K Mishra P K Singh	2 years (04/21-06/23) Extended up to 03/24	NHP
5.	Hydrological Assessment of Ungauged Basins (Aghanashini,	Vishal Singh P K Singh	3 years (04/22-03/25)	NHP

S. No.	Title	Study Team	Duration	Funding
	Dasanakatte, Sita Nadi, Madisala Hole, Swarna Nadi and Gurupur River Basins) of the West Flowing Rivers in the Western Ghat Region of Karnataka	Harsh Upadhyay Abhilash R.		
6.	Monitoring and hydrological modeling of Henvat watershed in Lesser Himalaya	M K Nema P K Mishra	3.5 years (08/20-03/24)	NIH
7.	Spatio-temporal Water Availability under Changing Climate and Land-use Scenarios in Wainganga River Basin	M K Nema P K Mishra	3 years (04/22-03/25)	NIH
8.	Investigating gap areas, current trends and future directions of research in Climate Change Impact on Hydrology and water Resources in India through Scientometrics	Archana Sarkar Jyoti Patil Charu Pandey	2 years (05/22-04/24)	NIH
Internal Studies (New)				
1.	Simulation of operation of multiple reservoirs in Wainganga Basin for conservation and flood control under changing climate scenario	A R Senthil Kumar T Thomas M K Nema Harsh Upadhyay Sunil Gurrapu	3 years (04/24-03/27)	NIH
2.	ResSed – Tool development for prediction of elevation-area-capacity curves of the reservoirs	A R Senthil Kumar U K Singh P. R. Patil Harsh Upadhyay Nitesh Patidar	2 years (04/24-03/26)	NIH
3.	Integrated operation of Bisalpur and Isarda reservoirs in Banas river basin, Rajasthan	Archana Sarkar A R Senthil Kumar P K Mishra Harsh Upadhyay Mr. Sanjay Agarwal	3 years (04/24-03/27)	NIH
4.	Water and Land Productivity Accounts for the major river basins of India using water accounting plus: WAPRO-India	P K Mishra P K Singh Vishal Singh Harsh Upadhyay P R Patil A. R. Senthil kumar	2 years (04/24-03/26)	NIH
5.	Development of rule-based integrated operation framework for the Mahanadi basin	P K Mishra M K Goel A R Senthil Kumar Harsh Upadhyay	1.5 years (04/24-09/25)	NIH
6.	Assessment of Precipitation Gradients and Temperature Lapse Rates for Hydrological Modelling in a Himalayan Catchment	P R Patil M K Nema P K Mishra A R Senthil Kumar Asif	3 years (04/24-03/27)	NIH

S. No.	Title	Study Team	Duration	Funding
7.	Evaluation of Area-Design Curve to estimate sediment distribution in Indian reservoirs	U K Singh A R Senthil Kumar M K Goel P R Patil	2 years (04/24-03/26)	NIH
8.	Water yield potential and flash flood risk assessment under changing climate and land use and strengthening of existing instrumentation in the Teesta River basin up to Domohani	Harsh Upadhyay Vishal Singh P K Singh A R Senthil Kumar P R Patil	3 years (04/24-03/27)	NIH

Hard Rock Regional Centre, Belagavi

S. No.	Project Title	Study Team	Duration	Status
Internal Studies				
1.	Comprehensive Assessment of Basin Hydrology of Rivers Originating from Western Ghats of Karnataka	Venkatesh B. (PI) Abhilash R. N. Varadarajan	3 years (4/23-4/26)	On-going
2.	Studies on Occurrence, Distribution of Springs in parts of Western Ghats, India	Abhilash R. (PI) Venkatesh B.	1 year (4/23-3/24)	On-going
3.	Water Productivity assessment in Irrigation Projects by Geo-Spatial Optimization Techniques	Abhilash R. (PI) Venkatesh B.	3 years (4/23-4/26)	On-going
4.	Groundwater Model Development in Micro Basin of Hard Rock in Krishna and Godavari River Basins of Telangana	B. Venkatesh (PI) Abhilash R. & officials from TSGWD	3 years (Sept 2019 – Aug 2022) extended up to March, 2025	On-going
5.	Impact of Sand Mining on Groundwater Regime in Parts of Manjira River Basin, Telangana State	Abhilash R. (PI) B. Venkatesh and officials from TSGWD	2 years (Sept 2021 – Aug 2023) extended up to March, 2025	On-going
6.	Comprehensive Assessment of Water Availability, Use and Issues for Goa State	B. Venkatesh (PI) Abhilash R. and Officials of WRD Goa	2 years (01/22 to 12/23) extended up to March, 2025	On-going
New Study				
1.	Comprehensive Assessment of groundwater resources in Shallow Coastal Aquifers of Gurupur and Pavanje basins of Dakshin Kannada, Karnataka	Sushmita Wadde Abhilash R. and B. Venkatesh	2 years June, 2024 – May, 2026	New study

S. No.	Project Title	Study Team	Duration	Status
2.	Coastal Salinity Studies in Bardez and Tiswai Taluk of Goa State	Abhilash R. (PI) Tripti M. (HQ) Venkatesh B. Sushmita Wadde	1 year June, 2024 – May, 2025	New Study

Western Himalayan Regional Centre, Jammu

S. No.	Title of Study	Team	Duration	Remarks
Internal Studies				
1.	Estimation of changes in snow cover and climate-cryosphere interaction in Upper Chenab River Basin	P. G. Jose (PI) D. S. Bisht	Aug. 2020 to June 2024	Ongoing
2.	Mass balance of Phuche and Khardung glaciers, Ladakh Range with implications for downstream water availability under changing climate.	P. G. Jose (PI) R. A. Mir D. S. Bisht I. Sharma S. Singh G. Singh	July 2021 to Dec. 2024	Ongoing
3.	Understanding hydro-cryospheric processes in response to climate change and atmospheric pollutants: A case study of Jhelum basin, Kashmir Himalaya, India	R. A. Mir (PI) P. G. Jose V. K. Singh I. Sharma S. Singh	May 2024 to Apr. 2027	New Study
4.	Basin-scale inventorying of rock glaciers for permafrost distribution probability mapping, hydrological storage estimation and hazard vulnerability assessment	R. A. Mir (PI) P. G. Jose S. Singh I. Sharma, D. S. Bisht	May 2024 to Apr. 2027	New Study
5.	Site Suitability Mapping for Rainwater Harvesting and Spring Rejuvenation in the Tawi Basin	I. Sharma (PI) S. Singh R. A. Mir	May to – Apr. 2026	New Study
6.	Development of a User-Friendly Web-Portal for Integrated Snow Cover and Meteorological Analysis with Land Use Change Detection Using Google Earth Engine	S. Singh (PI) I. Sharma R. A. Mir	May 2024 to Apr. 2026	New Study
Sponsored/Collaborative Projects (Ongoing)				
1.	Permafrost mapping and characterization of Western Himalayan Region	P. G. Jose (PI) A. P. Dimri (JNU) G. Jeelani (KU) V. Agnihotri (GBPNIHESD)	Aug 2019 to Mar 2024	Ongoing. Funded under NMHS.

Central India Hydrology Regional Centre, Bhopal

S. No.	Title of Project/Study	Study Team	Duration	Status	Funding
Internal Studies					
1.	Re-assessment of evapotranspiration (<i>ET_o</i>) estimation for irrigation planning in Madhya Pradesh	R. V. Galkate R. K. Jaiswal A. K. Lohani Shashi Indwar MP-WRD, Bhopal Sayyam Jhanjari Sameer Soni	3 years (Nov 2021 – Oct 2024)	Ongoing	Internal
2.	Water Availability Assessment for Project Formulation in Sub Basins of Ganga River in Madhya Pradesh	R. K. Jaiswal Ravi Galkate A. K. Lohani MP-WRD, Bhopal B. Baghel	3 years (Nov 2021 – Oct 2024)	On-going	Internal
3.	Development of Reservoir Operation Plan under Climate Change scenarios for Kolar reservoir	Shashi Indwar T. Thomas R. K. Jaiswal R. V. Galkate MP-WRD, Bhopal C.E., Hoshangabad S.E., Kolar E.E., Kolar	3 years (Oct 2021 – Sept 2024)	On-going	Internal
Sponsored Projects					
4.	Integrated reservoir operation studies for Mahanadi reservoir project complex in Chhattisgarh: SP-56/2021-22/NIH (CIHRC)	R. K. Jaiswal Ravi Galkate Shashi Indwar A. K. Lohani M. K. Goel Vishal Singh Sumit Saini Deepti Rani WRD, CG A. Verma J. K. Das V. K. Dubey A. Gupta P. Awadhiya IGKV, Raipur S. Chandniha	2 years (Apr 2022 - Sept. 2024)	Ongoing	Special Project under NHP
5.	Assessment of impact of climate change on water resources in Shipra river basin	Ravi Galkate R. K. Jaiswal Shashi Indwar RNTU, Bhopal Shalini Yadav S. K. Sharma	3 years Approval awaited from INCCC. Study will start as internal study from May, 24.	In principle approved by INCCC and final letter of award is awaited.	NIH/ INCCC, MoJS
6.	Water Resource Management for Tawa	R. K. Jaiswal Ravi Galkate	3 years As approval is	In principle approved	NIH/ INCCC,

S. No.	Title of Project/Study	Study Team	Duration	Status	Funding
	Reservoir Project under Climate Change	Shashi Indwar MPU Bhopal R. N. Yadav M. P. Verma	awaited from INCCC, study will start as internal study from May 2024	by INCCC and final letter of award is awaited	MoJS

Deltaic Regional Centre, Kakinada

S. No.	Title of the Project	Team	Duration	Funding
Internal Projects (Ongoing)				
1	Impact assessment of backwater through drains, creeks and river mouths on groundwater salinity in the Godavari Delta, Andhra Pradesh	Y. R. Satyaji Rao (PI) Y. Sivaprasad V. S. Jeyakanthan R. Venkata Ramana	2 years (08/22-07/24)	Internal Funding (NIH)
2	Storm water flood Management in the coastal city - A case study	R. Venkata Ramana (PI) Y. R. Satyaji Rao (PI) V. S. Jeyakanthan	2 years (04/23-03/25)	Internal Funding (NIH)
3	Climate Change Impact Assessment under Future Scenarios over the East Coast of India: A focus on the Hydroclimatic Extremes	Y. R. Satyaji Rao V. S. Jeyakanthan R. Venkata Ramana	2 years (04/23-03/25)	Internal Funding (NIH)
4	Evaluation and post-processing of multi-model short-to-medium-range precipitation forecasts: Towards developing a flood early warning system over Subarnarekha Basin	Y.R. Satyaji Rao Biswajeet Pradhan Saswata Nandi	3 years (04/23-03/26)	Internal Funding (NIH)
Internal Projects (New)				
5	Water Accounting of Palar River Basin Using Water Accounting+ (WA+) Frame work	V S Jeyakanthan (PI) P K Mishra Y R Satyaji Rao R. Venkata Ramana	2 Years (04/24-03/26)	Internal Funding, NIH
6	Delineation of fresh groundwater zones and simulation of solute transport modelling for the sustainable use of groundwater in the saline zone of Krishna Godavari Delta, Andhra Pradesh.	Y Siva Prasad (PI) Y.R. Satyaji Rao V. S. Jeyakanthan R. Venkata Ramana	2 Years (05/24-04/26)	Internal Funding NIH
Sponsored Project (Ongoing)				
7	High Performance Advanced Septic System for Villages and Roadside Restaurants (Performance evaluation only)	Y. R. Satyaji Rao (PI) R. Venkata Ramana	5 Years (04/18 –12/23) Extended upto June 2024	IC-IMPACT Canada

North-Eastern Regional Centre, Guwahati

S. No.	Title	Team	Duration	Type	Remarks
1.	Drought characterization and vulnerability assessment in Assam	W R Singh S Barman S Arora S K Sharma S V Vijayakumar A K Lohani	2 years (07/22– 06/24)	Internal	Ongoing
2.	Short Term Flood Forecasting Using Bootstrap based Artificial Neural Networks within Beki River Basin	S K Sharma S Barman, S V Vijayakumar A K Lohani	1 year (07/23– 06/24)	Internal	Ongoing
3.	Linear hydrological routing using Satellite precipitation datasets for flood forecasting in parts of Brahmaputra Basin	S Arora W R Singh S Barman	1.5 years (10/23– 03/25)	Internal	Ongoing
4.	Rainfall Induced Flood Hazard Risk Vulnerability Assessment in East Jaintia Hills, Meghalaya	S K Sharma S Arora A K Lohani	1.5 years (10/23– 03/25)	Internal	Ongoing
5.	Hydrodynamic modeling for riverbank protection- A case study	S Barman W R Singh S Arora S K Sharma, S V Vijayakumar	1.5 years (10/23– 03/25)	Internal	Ongoing
6.	Potential Recharge Zoning and Projection of Future Water Resources Potential in Singda Dam of Manipur	W R Singh S Barman S Arora M Maza	2 years (04/24– 03/26)	Internal	New Study
7.	Isotope characterization of waters and Hydrograph Separation in Dibang river catchment in Arunachal Pradesh	S Arora W R Singh S Barman S K Sharma S S Rawat	3 years (04/24– 03/27)	Internal	New Study
8.	Flood Inundation Modelling of Pagladiya River Basin of Assam	S K Sharma S Barman S Arora	1 years (04/24– 03/25)	Internal	New Study

Centre For Flood Management Studies, Patna

S. No.	Title	Study Team	Duration
Ongoing Internal Study			
1.	Evaluation of hydrologic models for Gandak river basin	Suryansh Mandloi (PI) Pankaj Mani Shubham Shaurabh Pravin Rangrao Patil	02 years (05/23-03/25)

S. No.	Title	Study Team	Duration
Sponsored Study (PDS/NHP)			
1.	Modeling and management of erosion and sedimentation processes in a reach of Gandak river using morphodynamic modeling	Pankaj Mani (PI) J. P. Patra WRD Bihar	3 years (05/21-04/24) (requested to extend by 6/24)
New Studies (Proposed)			
1.	Morphological study of Kichha river for selection of new site for Kichha barrage in Udham Singh Nagar, Uttarakhand.	Pankaj Mani (PI) Shubham Shaurabh Anil Kumar Atm Prakash	01 years (04/24-03/25)
2.	Urban Flood Modeling and Drainage Design for part of Phulwari Sharif, Patna, Bihar	Shubham Shaurabh Pankaj Mani Suryansh Mandloi Anil Kumar Atm Prakash	03 years (04/24-03/27)
3.	Sediment Yield modelling of the Gandak River basin using SWAT Model	Rajesh Ranjan (PI) Pankaj Mani	3 years (04/24-03/27)
4.	Application of macroscale hydrologic model to estimate design flood in Gandak river basin	Minotshing Maza (PI) Pankaj Mani Waikhom Rahul Singh Suryansh Mandloi Ankur Srivastava (Univ. of Technology, Sydney)	3 years (04/24-03/27)

North-Western Regional Centre, Jodhpur

S. No.	Project Title	Study Team	Duration	Funding	Status
1.	Assessment of the Groundwater Level Rise Crisis in Jodhpur City, Rajasthan: A Comprehensive Follow-up Study with Challenges and Remedial Approaches	Sourabh Nema Sudesh S. Choudhary Anupma Sharma Gopal Krishan Akshay V. Dahiwalé	1 year 4 months (Nov. 2023 to Mar. 2025)	Internal	Ongoing
2.	Identification of heterogeneous crops at farm scale using remote sensing data in IGNP canal command area	Sudesh S. Choudhary Sourabh Nema Anupma Sharma Nitesh Patidar Dilip Barman	1 year 4 months (Dec. 2023 to Mar. 2025)	Internal	Ongoing
3.	Hydrological Monitoring in Jojari River Basin	Sourabh Nema Sudesh S. Choudhary Anupma Sharma M. K. Sharma Akshay V. Dahiwalé Malkhan Singh Jatav	1 year 4 months (Dec. 2023 to Mar. 2025)	Internal	Ongoing

4.	Enhancing the Sustainability of Water Resources Through Integrated Assessment and Management in LUNI River Basin – Rajasthan (<i>Major project with sub-projects (4-6) at NWRC & 4 sub-projects at NIH Roorkee</i>)	Anupma Sharma (Project Coordinator) Scientists from GWH Div & NWRC Jodhpur	3 years (04/24 – 03/27)		New
5.	Analyzing the Flash Flood events in the Luni River Basin and Remedial Measures to Store Excess Water.	Akshay V. Dahiwale Sourabh Nema Anupma Sharma Dilip Barman Malkhan Singh Jatav	1 year 9 months (April 2024 to Dec.2025)	Internal	New
6.	Assessment of Water Productivity, Land Productivity and Agricultural Drought in Luni River Basin	Dilip Barman Sourabh Nema Prabhash K. Mishra Anupma Sharma Malkhan Singh Jatav Akshay V. Dahiwale	2 years (April 2024 to March 2026)	Internal	New
7.	Assessment of the Diversified Crop Types Using Remote Sensing Data in Luni River Basin	Malkhan Singh Jatav Sudesh S. Choudhary Anupma Sharma Nitesh Patidar Dilip Barman	2 years 6 months (April 2024 to Sept 2026)	Internal	New
8.	Preparation of Status Report of the Salinity Ingress in Coastal Area of Saurashtra and Kachchh, Gujarat State	Anupma Sharma Sourabh Nema Sudesh S. Choudhary Ajit Behera L. Surinaidu Nitesh Patidar Malkhan Singh Jatav	2 years 6 months (April 2024 to Dec 2026)	External	New

