

Sl no	Name Of Approved PDS	PDS no./code	Agency	partner Agency	PDS type /Topics	Objectives of PDS	Out come of PDS study	Date of approval letter	From R&D session	Start	Budget (Lakhs)	Budget	Duration (rs)	PI name	email	Final/End date PDS (as per letter of 8th R&D)	Remarks TAMC	Physical Progress remarks (Dynamic) upto January 2021	Remarks on PDS from 9th R&D session November 2020	Physical progress November 2020 to R&D	Financial progress Nov.2020 (9th R&D)	Physical progress January 2021 (10th R&D)	Financial progress January 2021 (10th R&D)	Extension Recommended January 2021 (11th R&D)	Budget Revised January 2021 (10th R&D)	Remarks on PDS from 10th R&D session January 2021	Financial progress so far
1	Hydrochemical & Mineralogical Evaluation of the Arsenic affected Shallow (<50 m) Holocene Aquifers of West Bengal & its Effect on Food Chain, West Bengal India	(WB-1_2016_18)	WB GWSWD	NA	Evaluation of the arsenic affected aquifers	To compare the geochemistry and mineralogy of aquifer sediments with the hydrochemistry and stable isotopes (O, H, and C) of groundwater and surface waters in contrasting groundwater arsenic bearing environments within Murshidabad district of West Bengal to decipher the mechanism of arsenic contamination in the area.	Possible extent of future contamination, validate the existing hypotheses on arsenic contamination, to enrich knowledge pool on mechanism of geogenic contamination, will set up a new integrated approach of similar studies in regional scale.	31.8.2017	1	Mar-18	50	50	4	Mr. Bihwik Chatterjee		Mar-22	Satisfactory	Field work in progress. Started modelling work	not presented	not presented	not presented	41%	41%	Not presented. The status of the PDS shall be inquired from the nodal officer of the IA.	41%		
2	Evaluation of Impacts of Rabi Irrigation in Ganga River Sub-Basin of Madhya Pradesh	(NH-1_2016_1)	NH	MP	Assessment of surface water quality status and irrigation measures	Evaluation of impacts of Rabi irrigation on hydrology, agricultural growth, economy and public health for selected irrigation projects in Ganga basin	Development of web-based dynamic application for performance evaluation of irrigation project. Recommendation of strategies to improve the performance of irrigation projects and Dissemination of knowledge and findings through trainings and workshops	31.8.2017	1	Mar-18	NH-37 MP-10	47.00	3	Mr. Ravi Galkate,	rgalkate@yahoo.co.in, galkate.nhr@gov.in	Mar-21	should be expedited to complete in extended period of time	Impact and performance evaluation of three and seven dams is under progress. Survey is completed. Workshop is planned in March 2021. An extension of six months (up to 30.9.2021) was requested. Support in field activities is being provided by partner organization.	not presented	not presented	not presented	71%	6 months (30.9.2021) Delay in socio-economic survey and hiring of the consultant due to COVID-19 lockdown	Impact and performance evaluation of three and seven dams is under progress. Survey is completed. Workshop is planned in March 2021. An extension of six months (up to 30.9.2021) was requested. Support in field activities is being provided by partner organization.	71%		
3	Modelling of Tawa Reservoir Catchment and Development of Tawa Reservoir Operation Policy	(NH-3_2016_4)	NH		Reservoir operation policy	Assessment of the present supply-demand scenario for Tawa reservoir; establishment of a comprehensive hydrological model for Tawa river basin up to Tawa reservoir; evaluation of future supply-demand scenario considering the population growth and changes in the cropping pattern; and optimizing reservoir operation	It will help in Assessment of future demand supply scenario based on population growth & future development in the TAWA basin. Formulation of reservoir operation policy for present and future.	31.8.2017	1	Mar-18	25.46	25.46	3	Dr. Shashi Poonam Indwar Shashi	shashi.indwar@gmail.com; shashi.nhr@gov.in	Mar-21	should be expedited to complete in extended period of time	Impact and performance evaluation of three and seven dams is under progress. Survey is completed. Workshop is planned in March 2021. An extension of six months (up to 30.9.2021) was requested. Support in field activities is being provided by partner organization. Budget reduction is proposed	not presented	not presented	not presented	53%	15.70 Digital expenditure (Laptop & Desktop) not made. IR left 5 months early	Impact and performance evaluation of three and seven dams is under progress. Survey is completed. Workshop is planned in March 2021. An extension of six months (up to 30.9.2021) was requested. Support in field activities is being provided by partner organization.	53%		
4	Water Quality Assessment of Southwest Punjab Emphasizing Carcinogenic Contaminants and their Possible Remedial Measures	(NH-14_2017_24)	NH	Punjab	Water quality assessment and remedial measures	Spate and temporal variation of water quality parameters and carcinogenic contaminants. Quantification of mutagenic potential (carcinogenicity) of water samples. Source identification of major contaminants and impact assessment on human health. Suggestions for possible remedial measures to reduce the impact of contaminants. Dissemination of knowledge and findings through outreach activities	Will provide first-hand information on the water quality of the area related to carcinogenicity. This will also lead to preparing a protocol for monitoring the carcinogenicity of water and will be helpful for the monitoring agencies. Will also suggest the remedial measure for providing safe water to the habitation which can be implemented by concerned govt agency	31.8.2017	1	Mar-18	65.60	65.60	3	Dr. Rajesh Singh	rsingh.nhr@gmail.com; rsingh.nhr@gov.in	Mar-21	should be expedited to complete in extended period of time	PI has requested for an extension of five months (up to 31.8.2021). Delay in collecting and translation of cancer patient data from Punjab. Fieldwork season disruption due to COVID-19	not presented	not presented	not presented	95%	5 months (31.08.2021) Delay in collecting and translation of cancer patient data from Punjab. Fieldwork season disruption due to COVID-19	Increase in overall budget was not accepted by the committee. High As in post monsoon samples and its source will be explained through geochemical analysis. PI has requested for an extension of five months (up to 31.8.2021).	95%		
5	Sedimentation Study of Hirakud Reservoir, Odisha using Optic and Microwave Remote Sensing Technology	(NH-16_2017_26)	NH	NA	Reservoir sedimentation	To assess the best approach between per-pixel, sub-pixel and super-resolution classifier for the reservoir sedimentation estimation. To evaluate the feasibility of using microwave satellite data for reservoir water-ground area estimation, to estimate sediment yield and prepare watershed wise soil erosion maps of the Hirakud basin using soil erosion modelling approach	Revision of operation schedule based on water availability, calculate useful life of reservoir, identifying vulnerable reaches of sub watershed of soil erosion and taking remedial measures accordingly.	31.8.2017	1	Mar-18	14.30	14.30	3	Dr. V. S. Jayakanthan	jayakanthan05@gmail.com	Mar-21	Satisfactory	PI reported that the PDS will be completed in time. Sub-committee noted that PDS shall bring out which method is suitable for the task. Budget reduction is proposed	not presented	not presented	not presented	21%	10.51 01 of 02 IR recruited, free sat data used. Consultant not engaged (027 issue). Obj. Soil erosion modelling dropped	PI reported that the PDS will be completed in time. Sub-committee noted that PDS shall bring out which method is suitable for the task.	21%		
6	Studies on Occurrence, Distribution and Sustainability of Natural Springs for Rural Water Supply in Parts of Western Ghats, India	(NH-18_2017_28)	NH	Maharashtra	Inventory and sustainability of Natural springs	Detailed study regarding impact of the physiographical and climatic parameters changes in selected watershed of Western Ghats. Study of develop watershed model to evaluate Aquantify both streamflow and base flow. Estimation of interflow in the selected catchments using field and analytical methods. Estimation of recharge rates in the selected watersheds. Assessment of water quality of spring water, groundwater and surface water application of isotope techniques to understand the origin of springs and its sources.	Sustainability of the springs role in rural water supply schemes. Change in spring water flow of that area due to land use land cover changes socio-economic impact caused due to change in spring water flow.	31.8.2017	1	Mar-18	54.54	54.54	3	Dr. B. K. Purandara	purandarakabekal@gmail.com	Mar-21	Satisfactory	Mobile app and web application were developed. An awareness video was also played. The PDS will be completed in time. Impact of recharge measures are also being investigated.	not presented	not presented	not presented	40%		Mobile app and web application were developed. An awareness video was also played. The PDS will be completed in time. Impact of recharge measures are also being investigated.	40%		
7	Investigating Water Stress using Hydrometeorological and Remote Sensing Data	(NH-20_2017_30)	NH	NA	Impact assessment	Characterizing water stress using hydro meteorological, remotely sensed data and vadose zone modelling. Analyzing changes in water stress conditions due to mitigation measures. Field level measurements of vadose zone moisture. Forecasting and regionalizing vadose zones. Catchment modeling	End user department will be able to plan water releases for the drought response and mitigation measures. Using customized reservoir operating policies, the user department will be able to reduce water stress in the basin.	31.8.2017	1	Mar-18	50.23	50.23	3	Mr. D. S. Rathore	dr.nhr@gov.in, dr.nhr@gmail.com	Mar-21	Satisfactory	Most of the work has completed. PI has requested for an extension of six months (up to 30.9.2021) to carry out basin and unsaturated modeling. Budget reduction is proposed	not presented	not presented	not presented	21%	15.00 Man power not recruited and major equipment not purchased	Soil moisture observation was complete. VCI was computed for one area. Clustering of rainfall, elevation and location variables completed. Probability distribution was fit to drought magnitude (SPI-1). Unsaturated zone (single column) Mike SHE model calibrated for foreland and scenario analysis of mill-wheel cropping and six and two irrigation was completed. PI has requested for an extension of six months (up to 30.9.2021) to carry out basin and unsaturated modeling.	21%		
8	Web GIS Based Spring Inventory for Vulnerability Assessment and Hydro-Geological Investigation of Selected Springs for Sustaining Local Water Demand in Ravi Catchment of Himachal Pradesh	(NH-21_2017_31)	NH	NA	Inventory and sustainability of natural springs	Creation of web enabled database of springs, inventory of physical and hydro-chemical characteristics, mapping of vulnerable springs with high societal impact. Identification of their potential, spring sanctuary development	Build capacity among the local stakeholders through creating para-hydrogeologists for conserving and managing the springs. Present status of the springs of Ravi catchment and identify the vulnerable spring. The adaptive strategies developed under the project for selected vulnerable springs having high social importance will provide a concrete scientific basis to rejuvenate these valuable resources.	31.8.2017	1	Mar-18	69.00	69.00	4	Dr. S. S. Rawat	sohan.singh@gmail.com, srawat.nhr@gov.in	Mar-22	Appreciable	Development of web and mobile app are in progress. An online knowledge dissemination workshop has been held in December. PDS will be end in time.	not presented	not presented	not presented	43%		Date and time stamp of observation was incorporated in the web application. Hiring of geologist was in progress. Spring data format adopted for NWIS spring data. Committee noted that additional presence of structure, use and functional status shall be incorporated in the format.	43%		
9	Groundwater Quality Assessment with Special Reference to Sulphate Contamination in Bemeta District of Chattisgarh State and Ameliorative Measures	(NH-29_2017_70)	NH	Chattisgarh	Assessment of surface water quality status and mitigation measures	Groundwater quality monitoring in pre-monsoon and post-monsoon season at identified locations; to map degraded groundwater quality zones and possible sources of pollution; identify specific parameters not conforming to drinking & irrigation water quality standards; to investigate the important geochemical processes responsible for the groundwater contamination; modeling flow and transport of sulphate contamination using MODFLOW and MT3D; dissemination of knowledge and findings to field engineer/researchers / common people through preparation of manual, leaflets, booklets and by organizing workshops/training	An extensive survey of groundwater quality monitoring of district Bemeta will provide knowledge about degraded groundwater quality zones and possible sources of pollution and specific parameters not conforming to drinking and irrigation water quality standards; to investigate the important geochemical processes responsible for the groundwater contamination; modeling flow and transport of sulphate contamination using MODFLOW and MT3D; dissemination of knowledge and findings to field engineer/researchers / common people through preparation of manual, leaflets, booklets and by organizing workshops/training	31.8.2017	1	Mar-18	25.40 (lead) 18.4 (partner)	25.40 (lead) 18.4 (partner)	3	Dr. M. K. Sharma	sharmam1967@gmail.com, mks.nhr@gov.in	Mar-21	satisfactory	Groundwater flow modelling using Modflow completed. The PDS will be completed in time.	not presented	not presented	not presented	72%		Groundwater flow modelling using Modflow completed. Sub-committee observed that PI shall look in to water budget for no flow boundary, stream etc. in the model. The PDS will be completed in time.	72%		
10	Water Efficient Irrigation by using SCADA System for Medium Irrigation Project (MIP) Shah Nehar	(NH-1_2017_78)	HP	NH	Irrigation Management	Study the real time availability of water at head-works, various outlets in the main canal and distribution system during the Rabi, Kharif and Zaid crop period. To devise the methodology for equitable distribution of water to the farmers in each crop period from head to tail reaches by using demand based supply mechanism. To develop the database of quantum of water supplied to each beneficiary. To impart suggestion regarding change in cropping pattern owing to real time monitoring of available water at various reaches of the canal. To check the adequacy and water losses throughout the canal. Analysis of data and suggest remedial measures.	Farmers will be benefited in terms of crop yield, increased in benefit cost ratio, areas will be benefited from more cash crops and even frequently.	4.12.2017	2	Jul-18	56.6 (lead) 18.4 (partner)	75	3	Shri Abhishek Sharma Executive Engineer, HP Dr. R.P.Pandey, Scientist G, NH Sh. J. P. Patra, Scientist D, NH	hishachalhydro@yahoo.co.in	Jul-21	Not satisfactory	Delay in field instrumentation by lead agency Himachal Pradesh. Instrumentation now completed but one year extension is needed.	not presented	not presented	not presented	6%		Instrumentation is progressing at three sites instead of whole command due to budget limitation. Tender for soil moisture sensors is in advance stage. Committee suggested that soil investigation shall be done for the selected plots, water budget in irrigation scheduling shall be quantified. One year extension (up to 30.6.2022) was requested without change in overall budget.	6%		
11	Assessment of Surface Water Quality status and evolving mitigation measures to improve the Water Quality in Thiruvur Corporation	(KER-3_2017_46)	Kerala Irrigation	NA	Assessment of surface water quality status and mitigation measures	To prepare pollution status of surface water bodies of Thiruvur Corporation area in a GIS platform. To improve the quality of water by introducing mitigation measures, based on the present Water Quality status and projected pollution for the next 50yrs. To categorize the surface water in the Corporation area on the basis of designated best use by Central Pollution Control Board. To prepare Water Quality Indices and compare with overall water quality status.	More accurate mitigation measures using reliable scientific technologies will improve the water quality for drinking and other purposes. Baseline information will benefit the researchers and planners in the planning of drinking water schemes. The point sources of pollution can be identified and monitored regularly to ensure the standards of the effluents.	4.12.2017	2	Jul-18	35	35	2	Superintending Engineer, Thiruvur	hydrologic@kerala.gov.in	Mar-21	Not satisfactory	Data collection delayed due to floods in 2018& 2019. Data collection season missed due to COVID-19 lockdown. A month extension is asked (30.09.2021)	not presented	not presented	not presented	23%	6 months (30.09.2021) Data collection delayed due to floods in 2018& 2019. Data collection season missed due to COVID-19 lockdown. 2 earlier months extension	Data analysis is progressing. PI has requested for additional six months extension (up to 30.9.2022) beyond nine months extension already given for sample collection, analysis, documentation and awareness workshop without change in overall budget.	23%		
12	Development of a Comprehensive Plan for Conservation and Sustainable Management of Bemeta and Naukuchital Lakes, Uttarakhand	(UK-1_2017_71)	Uttarakhand	NH	Conservation and management of lakes	To assess the seasonal water availability of the lakes and assess its adequacy in meeting future demands. To assess the water quality of the lakes and possible causes of its degradation. To estimate sedimentation rate and expected life of the lake. To suggest a comprehensive plan for conservation and Sustainable management of the lakes	The specific recommendations for conservation and management of the lake and the conservation plan would be used by the State Irrigation Department for the preparation of DPR for the development/rejuvenation of these lakes. Since the lakes are of great economic significance being sources of drinking water supply, recreation, and biodiversity hotspot, their conservation shall be of immense benefit for the society in general.	4.12.2017	2	Jul-18	40.69 (lead) 34.97 (partner)	75.66	3	Mr. Tribhuvan Singh	cs@nrrookee.res.in	Jul-21	Not satisfactory	Delay in installation of discharge gauges/weir at inflow and seepage outlet. 1 Year extension is asked for (30.06.2022)	not presented	not presented	not presented	38%	1 Year (30.06.2022) Delay in installation of discharge gauge/weir at inflow and seepage outlet	V-notch and weir construction is progressing. PI requested for an extension of 1 year (up to 30.6.2022).	38%		
13	Assessment of Impacts of Groundwater Salinity on Regional Groundwater Resources, Current and Future Situation in Mewat, Haryana – Possible Remedy and Resilience Building Measures	(NH-4_2016_5)	NH	Haryana GW	Groundwater salinity and source identification	Assessment of lowering of water table (depletion in groundwater level). Detailed qualitative analysis of the area and the aquifer depth impacted by higher salinity levels, and preparation of maps. To monitor inflow of saline groundwater into fresh water zone. To assess the impact of groundwater salinity on socio-economic aspects. To develop and demonstrate management and resilience building measures	Based on the results of the present study, a systematic salinity characterization of the impacted aquifer can be done. In addition to this, suitable approaches and strategies can be developed for site remediation and future protection of drinking water sources. These measures will also be useful for other salinity affected areas of India.	4.12.2017	2	Jul-18	65.00	65.00	4	Dr. Gopal Krishna	dr.gopal.krishan@gmail.com, drgopal.krishan.nhr@gov.in	Jul-22	Appreciable	Data collection, field survey, analysis and interpretation of data are mostly completed	PI stated that the fluoride concentration is increasing in the area and requested for approving procurement of fluoride measuring equipment. The sub-committee recommended purchase of an ion meter for observation of fluoride and other parameters. Total budget shall remain same. The sub-committee also recommended that better BIS standard shall be used. Possible causative factors e.g. plantation/ cultivation, soil texture etc. shall be explored for fluoride. Committee appreciated the good number of publication from the PDS. Head changes on budget requested without change in overall budget.	80% progress in data collection, field survey, water sample collection, analysis and interpretation completed. 50% progress in remedial measure (experimental model tested in central condition) (target date January 2022)	not presented	61%			61%		

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14	Impact Assessment of the Upcoming Irrigation Projects and Climate Change on the Droughts and Desertification Scenario for Chambal Basin in Western Madhya Pradesh	NH-5_2016_6	NH	MP	Droughts and desertification scenario	Assessment of climate change signals in Chambal basin. Evaluation of drought characteristics and investigation of the desertification hydrological modeling for simulation of the hydrological processes in the basin. Assessment of the impact of climate change under alternate climate scenarios on the future water availability, drought and desertification. Evaluation of the impacts of upcoming irrigation projects on the drought and desertification. Integrated assessment of vulnerability to drought, desertification and climate change.	The results of the study will directly benefit all the districts in Western Madhya Pradesh subjected to regular droughts and desertification. The recommendations of the study will help the State to harness and sustainably develop the water resources by having foresight into the water availability and occurrence of extreme events under the future scenarios of climate change.	4.12.2017	2	Jul-18	44.40	44.40	4	Dr. T. Thomas	tthomas_nih@yahoo.com	Jul-22	satisfactory	Sufficient progress has been made in this study but the work still to be expedite to complete in time	Sufficient progress has been made in this study but the work shall be expedited	85% progress in drought vulnerability analysis(baseline and future climate scenario) and hydrological modeling (baseline), 50% progress in modeling (future climate scenario), water availability and low flow analysis (Target date January 2022)	26%					26%	
15	Ganges Aquifer Management in the Context of Monsoon Runoff Conservation for Sustainable River Ecosystem Services – A Pilot Study (Uttarpradesh)	NH-7_2016_10	NH	UP	Characterization of deep aquifers and aquifer mapping	Area: Uttar Pradesh Hydro-geological characterization of the area: Analysis of meteorological and hydrological variables vis-a-vis cessation of river flows during the lean season: Estimation of surface water and groundwater availability: Analysis of stream-aquifer interaction: Aquifer management measures for enhancing river flow during the lean season.	Will provide a sustainable solution on water resources to the agriculture and domestic water supply in the study area, which is presently suffering from severe water scarcity problem particularly during the non-monsoon season. This study will address the issues related to future problems on water availability, cessation of river flows, declining groundwater levels and shall provide a sustained solution by managing excess monsoonal runoff for use in the non-monsoon season.	4.12.2017	2	Jul-18	57.71	57.71	4	Dr. Surjeet Singh	srsingh_sagar@yahoo.co.in	Jul-22	satisfactory	Data collection, field experiment, analysis and mapping completed. 40% progress in modeling, water availability and drought analysis, one training organized. Budget reduction recommended. Budget reduction proposed	The progress was satisfactory. The financial progress is little bit slow.	Data collection, field experiment, analysis and mapping completed, 40% progress in modeling, water availability and drought analysis, one training organized and drought analysis, one training organized (Target date January 2022)	25%				92.2 Reduction in Capital expenditure(equipment) head and fieldwork/consultancy	25%	
16	Hydro-geochemical Evolution and Arsenic Occurrence in Aquifer of Central Ganges Basin	NH-13_2017_23	NH	Bihar	Evaluation of the arsenic affected aquifers	Determination of the spatio-temporal variation of arsenic along with other water quality parameters in groundwater (Bogdair district, Bihar) Delineation of arsenic safe zone for drinking water supply. Evaluation of the controls of regional and local hydrology on arsenic contamination through monitoring of contaminated aquifer	Will help the govt agencies to select suitable water management and choosing appropriate, sustainable water resources in Bogdair district and definitive knowledge of the hydrological processes and subsurface geochemical processes will lead to good sustainable water resource policy.	4.12.2017	2	Jul-18	70.00	70.00	3	Dr. Sumant Kumar	sumanti_nih@gov.in; sumantsk@gmail.com	Jul-21	satisfactory	Batch and column experiments are planned. The study will be completed as per the approved timeline.	not presented	Drilling, sampling, analysis, column experiment (100%), sediment characterization (90%), arsenic release mechanism (20%)	84%			Batch and column experiments are planned. The study will be completed as per the approved timeline.	84%		
17	Integrated Study on Groundwater Dynamics in the Coastal Aquifers of West Bengal for Sustainable Groundwater Management	NH-22_2017_38	NH	WB	Groundwater dynamics in coastal aquifers	1) Assessment of spatio-temporal variables (sea level change, variation in groundwater levels, rainfall trend etc) influencing dynamics between seawater & groundwater interface using archival data 2) Spatio-temporal variation map of fresh water – saline water interface 3) Identification of source of salinity 4) source of excess SW for artificial recharge 5) Management measures for safe & sustainable coastal groundwater use	As of now, there is no status report on coastal groundwater dynamics of West Bengal is available. The project involves the exchange of knowledge, now data and field-based management strategies that can be implemented to improve and sustainment of GW condition of the state. The highlight of the results will be disseminated to stakeholders through interactive programs.	4.12.2017	2	Jul-18	51.50	51.50	3.5	Dr. M. S. Rao	65somesh@gmail.com; somesh.nih@imic.in	Jan-22	satisfactory	Remote sensing and GIS based work complete. High conductivity was observed at two locations. Source of pollution shall be explored at those locations. Head changes on budget requested without change in overall budget	Remote sensing and GIS based work complete. High conductivity was observed at two locations. Source of pollution shall be explored at those locations. Head changes on budget requested without change in overall budget.	60% progress in data collection, map preparation, well identification and water sample analysis (chemical, isotopic). 30% progress in mapping water consumption/scarcity hotspots. (Target date October 2021)	27%				27%		
18	Chemical & Isotopic Characterization of Deep Aquifers of Middle Ganga Basin	NH-26_2017_62	NH	UP	Groundwater salinity and source identification	To identify the various aquifers present in Upper / Middle Ganga plains: To identify the source of recharge of deep aquifers: To assess the interaction of deep aquifer with overlying aquifers: water quality of deep aquifer: Sustainability of deep aquifer for its exploration and future use.	The study will provide a status report on the dependability on these aquifers for future groundwater use and the risk of contamination of these aquifers from overlying aquifers. Useful to the State Groundwater Department in drilling wells in these aquifers for all future use. The project also involves the impact of new isotopic technologies to India through knowledge transfer from IAEA, Vienna, hence benefited from knowledge upgradation	4.12.2017	2	Jul-18	50.60	50.60	3.5	Dr. Sudhir Kumar	skumar_nih@gov.in; sudhir_nih@gmail.com	Jan-22	satisfactory	70% progress in data collection, map preparation, well identification and water sample analysis (chemical, isotopic). 30% progress in mapping water consumption/scarcity hotspots	Comparison of water quality of aquifers at various depths shall be done to explore possible connectivity of shallow and deep aquifers. The sub-committee noted that latest/ upgraded version of Aquachem software is available at the institute and thus procurement of Aquachem software in lieu of SPSS was not recommended	70% progress in data collection, map preparation, well identification and water sample analysis (chemical, isotopic). 30% progress in mapping water consumption/scarcity hotspots. (Target date July 2021)	12%				12%		
19	Groundwater Salinity Source Identification in Godavari Delta, A.P.	NH-27_2017_63	NH	APGW	Groundwater salinity and source identification	Identification of groundwater salinity zones within the Godavari delta of AP SW Remedial measures to control groundwater salinization in Godavari delta of India	The output of the study will provide a detailed understanding of the salinization process in the Godavari delta. Some of the apprehensions on the impact of aquaculture, backwater effect through creeks, pumping of groundwater from deeper aquifers and reduction in groundwater recharge would be addressed clearly in this proposed study. Due to an increase in groundwater salinity in Godavari delta, shallow freshwater potentials have been decreased significantly. This study will help AP state govt and public to protect GW. The methodology adopted in this study may be extended to other coastal regions of India	4.12.2017	2	Jul-18	51.09	51.09	3	Dr. Y. R. Satyajy Rao	yrrao_nih@gov.in; yrrao@gmail.com	Jul-21	Good	Fresh water aquaculture found in Narasapur. Salinity zones delineated using state data. Deep groundwater isotopic characterization is to be done. Fresh/ brackish water aquaculture zone is being done by state departments. For dilution investigation, simulation being attempted. The PDS will be completed in time.	not presented	Field visit, monitoring network (100%), data/ software/ equipment procurement (80%), sample testing (50%), salinity zone, source identification (70%).	32%			Investigation, simulation being attempted. PI may explore GEE for water body delineation. The PDS will be completed in time.	32%		
20	Study of Surface and Subsurface Water Interaction using Remote Sensing, Geohydrological and Geophysical Techniques and Its Modeling	CWPRS-2_2016_7	CWPRS	NA	SW GW interaction	Map Geology and identify lineaments of the area by using remotely sensed data: To map subsurface structures by geophysical methods: Establishing relationship between geoelectric and hydraulic parameters for estimating the spatial distribution of hydraulic conductivity of the subsurface establishing linkage factor of the surface waters by conducting underwater single-channel seismic reflection survey and underwater electrical imaging survey. To evaluate impact of land use/ land cover change on groundwater recharge: To estimate surface and subsurface water interaction and to propose recharge sites based on hydrological modelling remote sensing, geophysical and geohydrological results.	It will be helpful in proposing recharge sites. The study further contributes to assessing the competency of the reservoir and canals from a geotechnical point of view.	3.4.2018	3	Nov-18	28.8	28.8	3	Dr. C. Krishnaiah	chkrishnaiah_cwprs@yahoo.co.in	Nov-21	Satisfactory	Data and equipment procurement completed, 65% progress achieved in field experiments, data analysis and modeling	PI informed that a proposal of extension of timeframe of 13 months for the consultant and additional funding for salary of Project Fellow, travelling and other expenses was sent to NPMU on 15 th October 2020. Sub-committee recommends to extend the request indicating work accomplished/ remaining as per TOR/ deliverables, justification for delays, additional work desired, its cost, timeframe and justification for the additional work to NPMU at the earliest.	Data and equipment procurement completed, 65% progress achieved in field experiments, data analysis and modeling (Target date is November 2021)	45%			45%			
21	River Rejuvenation of Mutha River Reach Flowing through Pune City and Suburbs, Maharashtra	CWPRS-3_2016_8	CWPRS	NA	River Rejuvenation	Simulation of water quality variables like DO, BOD, coliforms and nutrients, water quality management. Generation of scenarios for best water quality management for different purposes. Assessment of level of treatment required to meet these conditions. Conduct water quality model study using latest software	Design the schedule for water releases from Khadakwasla dam for dilution of pollution to bring the quality to acceptable level. Recommendation of policy action for preventing release of pollutants into river. A calibrated and verified water quality model is the deliverable to further study the futuristic scenarios under various stress conditions and requirements	3.4.2018	3	Nov-18	55.8	55.8	3	Dr. V. M. Prabhakar	chemistry.cwprs@yahoo.co.in	Nov-21	Satisfactory	field visit and data collection is completed. Modelling is in progress.	The sub-committee noted that DO observed by WQ Monitor was very high and result shall require interpretation. WQ standards of CPCB/ BIS shall be used for WQI.	95% progress Field visit and data collection (Target date was July 2019). 65% progress in modeling (Target date was November 2020)	36%			36%			
22	Studies on Saline Ingression in selected river basins of Kerala and the impact/extent of sea water intrusion in coastal Aquifers of Kerala state.	KER-5_2017_48	Kerala irrigation	NA	Effect of Coastal process and Sea water intrusion	Saline ingress study in the river system to identify the intensity, propagation of salinity during different months and extent of affected areas; and identify suitable locations for saline control structures.	There is no available data of salinity ingress. Therefore, the project will be beneficial to management agencies to carry out countermeasures. The data collected from the project can be utilized by the management agencies to propose and implement countermeasures like construction of regulators, check dams, shutters/gates to control saline ingress into the river.	3.4.2018	3	Nov-18	62.5	62.5	3	Ms. Preetha Sugathan	hydrology@kerala@gmail.com	Nov-21	should be expedited	progress in river water sampling December. May for salinity and water quality completed and 75% samples processed, ADCP and current meter used and tide gauge installed	The progress is OK but the work shall be expedited.	30% progress in river water sampling December. May for salinity and water quality completed and 75% samples processed, ADCP and current meter used and tide gauge installed (Target date August 2021)	23%			23%			
23	Mapping of Groundwater Quality in the Industrial Belt of Ernakulam District	KER-8_2017_82	Kerala GW	NA	Groundwater salinity and source identification	Study the type and extent of industrial pollution in the study area- identify critical area requiring immediate attention; identification of hazardous organic and inorganic pollutant in different selected sites of industrial area; putting the data generated in GIS platform for interpretation and planning for the future developmental activities like restoring water quality.	The research findings of the study can apply in similar geology and serve as a platform to make a comparison with other terrain. While setting up industries, can put some geological barriers for the prevention of contaminant transport. Suggestion of suitable mitigation measures (selection from the technologies encompassing natural chemistry, bioremediation and bioispiration) that suit the geo-environmental condition will be recommended to the public for the protection and maintaining the quality of water. The data generated can serve as a platform for future prediction	3.4.2018	3	Nov-18	48.72	48.72	3	Mrs. Soya Y. Das	gwalym@gmail.com or soyaydas@gmail.com	Nov-21	should be expedited	progress in well sample collection and analysis within area and outside control collected and mapping	The work need to be expedited. Sub-committee also noted that aquifer boundaries shall be taken in account for interpolating water quality parameters. Interpolation accuracy shall be also be reported.	50% progress in well sample collection and analysis within area and outside control collected and mapping (Target date November 2021)	24%			24%			
24	Environmental impact assessment of pesticide residue in cardamom cultivating area in Idikkal district in Kerala.	KER-9_2017_83	Kerala GW	NA	Environmental impact assessment	Monitoring pesticide residue, study the soil physical and hydraulic properties of that locations; conduct unsaturated soil column studies under controlled and field conditions using lysimeter. To study the mobility of different classes of pesticides through the soil and confirmation of the findings by isotopic technology. Development of mathematical solute transport model	The study will provide complete and accurate data on the status of pesticide residues in water bodies, its mode of transport in different soil types and can elucidate a model which is suited to all type of crops. This work can also be used for the solute transport of agrochemical contamination of Kuttanad paddy fields in the Alappuzha district	3.4.2018	3	Nov-18	42.5	42.5	2.6	Mrs. G. P. Bindumol	gpbindumol@gmail.com	Jun-21	should be expedited	Instrumentation is progressing at three sites instead of whole command due to budget limitation. Tender for soil moisture sensors is in advance stage. Committee suggested that soil investigation shall be done for the selected plots, water budget in irrigation scheduling shall be quantified. One year extension (up to 30.6.2022) was requested without change in overall budget. A minor reduction in budget is anticipated	Pesticide residue sampling and testing (50%), training (50%), modeling studies (50%)	11%	6 Months (30.09.2021) Delay in recruiting project staff & fabrication of lysimeter	Instrumentation is progressing at three sites instead of whole command due to budget limitation. Tender for soil moisture sensors is in advance stage. Committee suggested that soil investigation shall be done for the selected plots, water budget in irrigation scheduling shall be quantified. One year extension (up to 30.6.2022) was requested without change in overall budget.	11%				
25	Impact of Urbanization on Groundwater Quality & Quantity and its Management in Greater Hyderabad Municipal Corporation (GHMC), Hyderabad	TEL-4_2017_76	Telangana GW	NA	Groundwater salinity and source identification	To understand the groundwater regime in urban aquifer of GHMC area: to identify the type of contaminants and sources which poses a threat to groundwater; the environment and health in urban aquifers of Hyderabad city; to formulate strategies for protection of GW resources from potential contaminants; and to establish a data information system on Hyderabad City GW condition	The expected outcome of this study is a comprehensive understanding of the groundwater status in terms of quantity and quality in Hyderabad city and surrounding (GHMC), preparation of groundwater quality index maps for the GHMC area. It will help GHMC and HMDA (Hyderabad Metropolitan Development Authority) area for having proper urban planning and environmental management	3.4.2018	3	Nov-18	80.82	80.82	3	Dr. Pandith Madhure	hp.gwa-ts@gov.in	Nov-21	satisfactory	Monthly water quality (two quarter 2020) sampling and level data collected for groundwater and tank, 50% parameters analysed, software procured for further analysis	The work need to be expedited. Sub-committee also noted that aquifer boundaries shall be taken in account for interpolating water quality parameters. Interpolation accuracy shall be also be reported.	Monthly water quality (two quarter 2020) sampling and level data collected for groundwater and tank, 50% parameters analysed (Target date November 2021), software procured	17%			17%			
26	To Study Surface – Ground Water Interaction to develop a Comprehensive Hydrogeological Frame Work to manage Groundwater Resource in an Over Exploited Groundwater Assessment Unit	TEL-5_2017_77	Telangana GW	NA	Ground water study	study of characteristic hydrogeology of aquifer system, estimate hydraulic and storage properties of a fractured rock aquifer system using latest state of art technology. Numerical GW flow model with crop yield model with variable management practice	To provide management decisions in response to farmers / stakeholders existing / proposed field practices for improved crop yield and water use efficiency. The outcome of the project will help in understanding the surface water - groundwater interaction under different scenarios in the hard rock system of Telangana state. It also helps in developing a decision support system to sustain and manage the groundwater resources in an aquifer drained with a chain of the tank systems.	3.4.2018	3	Nov-18	74.82	74.82	3	Dr. Pandith Madhure	hp.gwa-ts@gov.in	Nov-21	satisfactory	AWS installed and data collection, water level/ quality monitoring (fortnightly) in progress, observation wells established. Borehole inspection/ imaging, geophysical survey (2D ERT) nearly complete	Progress is good.	AWS installed and data collection, water level/ quality monitoring (fortnightly) in progress, observation wells established (Target date April 2019)	3%			3%			
27	Study of the Behavior of Multi-Aquifer System & Aquifer Mapping for an Effective Groundwater Management in Gunduru Sub-Basin, West Godavari District, AP	AP-1_2017_80	AP GW	NH	Characterization of deep aquifers and aquifer mapping	To prepare status report on the water resources and development in the multi- aquifer system. To develop conceptual hydro-geological model setup of aquifer system to establish boundary conditions of the multi aquifer system; to establish aquifer characteristics; prepare database for GW flow model; to study GW flow and suitable artificial recharge intervention as a management practice in multi aquifer system; Development of GW flow model of Gunduru Sub-basin	The outcome of the study will be a management tool to manage the groundwater and its availability in the basin; a computer model of groundwater flow to simulate artificial recharge and undertake development in the basin and a methodology to plan and operate the multilayered aquifer as a better underground water storage reservoir	14.8.2018	4	Mar-19	65(lead) 20 (partner)	85	3	Mr. A. Vara Prasad Rao	anbhrav@gmail.com	Mar-22	satisfactory	Modelling is progressing using MODFLOW. Four aquifer layers are being considered. Committee accepted procurement of software and extension of area without change in overall budget of individual IA.	not presented	not presented	Data preparation, hydrogeological, geophysical and hydrological investigation, drilling (3 piezometers) and water quality analysis (100%). Pumping test (10%)	6%		Modelling is progressing using MODFLOW. Four aquifer layers are being considered. Committee accepted procurement of software and extension of area without change in overall budget of individual IA.	6%		

