



GOVERNMENT OF INDIA

Ministry of Jal Shakti

**DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA
REJUVENATION**

OUTPUT-OUTCOME MONITORING FRAMEWORK DOCUMENT: 2022-23

DEMAND NO. 62

**DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA
REJUVENATION**

(Schemes with financial outlays Rs. 500 crore or more)

Department of Water Resources, River Development and Ganga Rejuvenation

1. Interlinking of Rivers Project (National Project)- NWDA (CSS)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators
1,400	1. Priority links / Implementation of Project	1.1 Ken-Betwa link project – Second year outlay for construction. ¹⁰⁸ (Done/Not Done)	Not Done	1. All the interlinking of river projects will provide long term outcomes of increase in CCA, power generation and make water available for various uses ¹⁰⁹	1.1 Ken-Betwa Phase-I&II Project (On Completion) CCA (in ha.) MP: 6,53,368 UP: 2,51,064 Total: 9,04,432 Drinking Water Supply Total :228.9 MCM for 62.94 Lakh population of Uttar Pradesh and Madhya Pradesh Power Generation: Hydro: 103MW Solar: 27 MW Total power generation: 130 MW	Target not amenable ¹¹⁰

¹⁰⁸ Post DPR activities like obtaining balance clearances, additional surveys for identified storage sites in UP side, revision of DPR of Phase-I etc. Formation of Special Purpose Vehicle (SPV) for the implementation of KBLP. Carry out preparatory works for construction of various components of KBLP etc.

¹⁰⁹ The construction will start only after all statutory clearances and will take about 6 to 8 years. So, the outcome will commence after implementation of any ILR project.

¹¹⁰ On implementation, the project will provide the benefits as furnished in outcome indicators.

2. Umbrella Scheme: Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) (CSS)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23				
	2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23	
10,954.44	a. Accelerated Irrigation Benefits Programme (AIBP)							
	1.	Expedite Implementation of AIBP works 46 projects (including phases) completed so far.	1.1. No. of AIBP projects targeted for completion by March 2023. ¹¹¹	10 projects by March 2022 and another 20 projects by March 2023	1.	Creation of additional irrigation potential	1.1. Total additional Irrigation Potential Created (in lakh Ha) through PMKSY-AIBP	3.5 lakh Ha
					2.	Resulting in increase in yield of crops & income of farmers; replenishment of ground water and increased water availability for other uses.	2.1 Increase in crop yield attributable to increased irrigation from PMKSY-AIBP	Target not amenable ¹¹²
					2.2 Increase in groundwater levels attributable to PMKSY-AIBP	Target not amenable ¹¹³		

¹¹¹ 60 projects (including phases) are currently under progress, and 10 projects are targeted for completion by March 2022.

¹¹² Cannot be quantified

¹¹³ Ibid

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23			
	2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23
	b. Har Khet Ko Pani (HKKP)						
	i. Command Area Development & Water Management (CADWM)						
	1. CADWM works in the identified prioritised projects	1.1. Central Assistance released to the states (in Rs. crore)	190	1. Reduce the gap between Irrigation potential created and utilized	1.1. Additional culturable command area covered (in lakh ha.)	2	
		1.2. Additional no. of Water Users Associations created	400		2. Strengthen participatory irrigation management	2.1. Command area (in lakh ha) covered for participatory irrigation management through the Water User Associations formed.	2
		1.3. No. of assets handed over to the Water User's Associations ¹¹⁴ (Additional)	300				
	ii. Surface Minor Irrigation (SMI) & Repair, Renovation and Restoration (RRR) of Water Bodies						
	1. Expedite progress on the RRR/SMI components of the scheme	1.1. Additional no. of RRR & SMI projects to be completed (projects/water bodies)	100 projects/water bodies	1. Creation of additional irrigation potential	1.1. Additional irrigation potential created (in lakh ha)	0.5	

¹¹⁴2900 Assets that have been handed over to no. of WUAs and Cumulative WUAs created till date is 8391.

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23			
	2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23
	iii. Ground Water Irrigation						
	1. Creation of Ground water abstraction structures	1.1. No. of wells constructed with pumps, Pipes/in Safe ¹¹⁵ blocks/districts:	Targets not amenable ¹¹⁶	1. Development of additional Irrigation potential and irrigation facility to farmers	1.1 Creation of additional command area (in ha)	Targets not amenable ¹¹⁷	
					1.2 Numbers of farmers benefitted	Targets not amenable ¹¹⁸	
	c. Special Package for Irrigation projects in Maharashtra						
	1. Expeditious implementation of Major & Medium Irrigation (MMI) and Surface Minor Irrigation (SMI) Project. 18 SMI projects	1.1. No. of Major & Medium Irrigation (MMI) projects to be completed by March-23	1 project by March 2022 and an additional 3 projects by March 2023	1. Creation and utilization of additional irrigation potential in the command of the projects under special package	1.1. Additional irrigation potential created (in Lakh Ha.)	1	
					1.2. Irrigation Potential utilised ¹¹⁹	100% (on completion of CADWM, agricultural extension works, etc.)	

¹¹⁵ After the implementation of scheme Stage of GW development should not exceed 70%

¹¹⁶ The Expenditure Finance Committee (EFC) meeting was held on 6th August '21 for continuation of PMKSY-HKGP-GW Irrigation scheme for 2021-26. The EFC has recommended to review the performance of the scheme after March '22 to take a final view about its continuance during the remaining period of XV Finance Commission cycle.

¹¹⁷ Ibid

¹¹⁸ Ibid

¹¹⁹ IPU is dependent upon CADWM works, agriculture extension works etc.

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23
	completed	1.2. Additional No. of Surface Minor Irrigation (SMI) projects to be completed by March-23	65	2. Resulting in increase in yield of crops & income of farmers; replenishment of ground water and increased water availability for other uses.	2.1 Increase in crop yield attributable to increased irrigation from Special Package for Irrigation projects in Maharashtra	Targets not amenable
					2.2 Increase in groundwater levels attributable to Special Package for Irrigation projects in Maharashtra	Targets not amenable
d. Irrigation Census- Standalone component						
	1. Conducting 2 nd census of water bodies in convergence with of 7 th MI Census	1.1 Undertaking preparatory activities: (i) Formulation of schedules/ instruction manuals/ concepts& definitions for data collection of 7 th Minor Irrigation Census and 2 nd Census of Water bodies. (ii) Finalisation of schedules/ instruction Manual and concepts and definitions	06	1. Information based planning and policy formulation in Minor Irrigation Sector.	1.1 Activities for data dissemination to be undertaken: (i) Publishing of National level report of 6 th Minor Irrigation Census and first Census of Waterbodies. (ii) Creation of dashboard for 6 th	03

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23			
	2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23
			<p>in consultation with concerned States/UTs, Central line Ministries and other stake holders</p> <p>(iii) Constitution of Steering Committee</p> <p>(iv) Meeting of Steering Committee for finalising the statistical instruments</p> <p>(v) Development of mobile app and software for real time data entry & validation of schedules</p> <p>(vi) Pilot testing of mobile app</p>			<p>Minor Irrigation Census and first Census of Waterbodies.</p> <p>(iii) Publishing of data up to village level in OGD platform data.gov.in</p>	
		1.2	Conduct of 01 All India and 06 Regional Workshops for undertaking 2 nd census of water bodies in convergence with of 7 th MI Census	Organization of 01 All India and 06 Regional Workshop			

3. National Ganga Plan, Ghat Works and National River Conservation Programme – Namami Gange (CS)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23				
	2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23	
2,800	1. Preventing direct discharge of sewage into Ganga and treatment of sewage.	1.1. Sewage Treatment Capacity installed (in MLD)	615	1. Improved water quality to achieve prescribed bathing standards by 2023.	1.1. Average B.O.D content (\leq mg/l)	3		
					1.2. Average D.O. content (\geq mg/l)	5		
	2. Pollution abatement through regulation of direct discharge of industrial waste in Ganga and monitoring of water quality.	2.1. % of complying Grossly Polluting Industries.	100	2. Improved water quality to achieve prescribed bathing standards by 2023.	2.1. Average B.O.D content (\leq mg/l)	3		
					2.2. Cumulative number of Manual water quality monitoring stations installed.	97 (previous y) ¹²⁰	2.2. Average D.O. content (\geq mg/l)	5
							2.3. Number of additional Real Time water quality monitoring stations installed	40

¹²⁰ Already installed, no additional manual water quality station planned to be installed during F.Y. 2022-23.

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23			
	2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23
		2.4. Cumulative number of Real Time water quality monitoring stations installed.	36 (previousl y) + 40 (additiona l)				
	3. Planning and management for Aquatic species conservation and maintenance of Ecosystem services in the Ganga River basin for a clean Ganga.	3.1. No. of Carp fingerlings ranched in selected stretches Ganga in UP, Bihar and West Bengal.	5,00,000	3. Improved fish biodiversity of river Ganga. Increased awareness about conservation of fish biodiversity among fisherman communities.	3.1. Improved catch per unit hour of effort.	Target not amenable	
		3.2. No. of Mahaseer (keystone species) brooders developed.	3,000		3.2. Increase in Mahaseer population (by experimental fishing or surveying the fishermen) (in kgs)	Target not amenable ¹²¹	
		3.3. No. of adult Hilsa ranched in Farakka stream.	5,000		3.3. Increased availability of Hilsa upstream of Farraka up to Allahabad (Yes/No)	Yes	
	4. Increasing area afforested area.	4.1. Additional Area Covered under afforestation (in ha.)	0 ¹²²	4. Improvement in quality and	4.1. % Survival of the plants	Target not amenable ¹²³	

¹²¹Since the brooder development will take 2-3 years, the outcomes shall only be measures post breeding raising fingerling and ranching.

¹²²Carried out by MoEF&CC through National & State CAMPA fund.

¹²³Target cannot be quantified in the short-term, as the outcome of afforestation works for improving wholesomeness of the river and Aviral Dhara will be felt in the long term

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23			
	2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23
		4.2	Cumulative afforested area being maintained (period of 5 years) (in ha)	28,000	quantity of precipitation, which would contribute to the objective of improving the wholesomeness of the river and Aviral Dhara.		

4. National Hydrology Project (NHP) (CS)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23				
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators	Targets 2022-23	
800	National Water Information Centre							
	1.	Strengthening of Integrated Water Resource Information System	1.1. No of additional Real Time Hydromet Stations with Water Data on line for surface as well as ground water.	6,000	1.	Making available enhanced Water Resources information for better water resources planning and informed decision making for extreme events.	1.1. No of States with strengthened hydromet monitoring systems	10

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23			
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators	Targets 2022-23
		1.2. No. of existing modules of India WRIS to be enhanced.	10	2. Number of users visiting India WRIS portal along with number of data downloads	2.1 No. of incremental users in F.Y. 2022-23	13,000	
					2.2 No. of incremental Data Download	25,000	
	2.	Installation of Supervised Control and Data Acquisition System (SCADA) for better Water Resource Management	2.1. No. of Projects being undertaken by the Implementing Agencies.	13	3. Automatic system operation based on Real Time data acquisition with reduced margin of errors and skill improvement of operational staff.	3.1. No. States and River basin Organisation benefiting out of these.	8
	3.	Construction of Piezometers for effective Ground Water Monitoring	3.1. No. of Piezometers being installed by the Implementing Agencies	2,000	4. Improved Ground Water Resource Estimation along with installation of DWLRs for Real time water level and Quality monitoring for better Ground Water Management	4.1. No. States/UTs benefiting out of these.	15
	4.	Institutional Strengthening	4.1. No of additional Data Centre set up	8	5. Converting data into knowledge products for informed decision making and enhanced	5.1 No of Knowledge Products	8

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23			
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators	Targets 2022-23
					capacity building for water resources professionals		
		4.2. No. of Trainings conducted (Both Online & Offline Mode)	60			5.2 No. of Water Resources Professionals trained	700
	5. Setting up of Inundation Forecast	5.1 No. of basins to be covered for Operational Inundation mapping based upon flood forecast with additional lead-time.	2	6. Enhanced responsiveness to flood forecasting ¹²⁴	6.1 Enhancement in lead time for flood forecasting. (In hours) ¹²⁵	48 hrs to 72 hrs	
					6.2 River basin area under monitoring for floods. (in lakh sq. km)	3.75 (Total Basin area)	

¹²⁴ Apart from water levels in the rivers, on completion of the system in 2022-23, mapping of expected inundation extent including the depth of inundation Improved lead time in case of forecast based upon meteorological parameters would be possible

¹²⁵ The baseline is – up to 24 hours.

5. Atal Bhujal Yojana (CS)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23			
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators	Targets 2022-23
700	1.	Improved ground water monitoring and dissemination of data	1.1. Additional no. of monitoring wells.	4,000	1. Improved awareness about the local ground water scenario among the community	1.1. No. of Gram panchayats having communities with improved awareness	1,670
			1.2. No. of block-wise ground water reports published.	100			
	2.	Community led Water Security Plans (Prepared / Updated	2.1. No. of Water Security Plans finalized and approved 3511 WSPs	3,511	2. Comprehensive plans to ensure sustainable development of available water.	2.1. Number of Supply side interventions constructed as per the plan	Target not amenable
						2.2. Increased area under efficient water use	Target not amenable
3.	Public financing of Water Security Plans through convergence of ongoing/ new schemes	3.1. Cost of interventions (as per approved water security plan) implemented through convergence.	644 crore	3. Optimal use of available funds for facilitating sustainable water management	3.1. Number of blocks which have achieved convergence	42 blocks	
4.	Drip / sprinkler Crop diversification	4.1. Increase in area under Drip / Sprinkler Irrigation.	Target not amenable	4. Improved water use efficiency in agriculture	4.1. Volume of water conserved	Target not amenable ¹²⁶	

¹²⁶ In the absence of data capture mechanisms, numbers from empirical calculations to be used.

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators
		4.2. Increase in area with diversified crops (in ha.)	Target not amenable		4.2. No. of farmers using drip/sprinkler irrigation.	5,000 Overall
					4.3. No. of farmers undertaking crop diversification.	5,000

(Schemes with financial outlays less than Rs. 500 crore)

Department of Water Resources, River Development and Ganga Rejuvenation

1. Flood Management & Border Areas Programme (FMBAP) (Centrally Sponsored Scheme)

FINANCIAL OUTLAY- (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Target 2022-23
450.00	1. Execution of river management, anti-erosion, Flood Control and anti-sea erosion works in critical areas.	1.1. Total no. of flood management works completed ¹	8	1. Reduction in damage due to floods, river erosion in selected river catchments.	1.1. Total population benefited under the intervention 1.2. Total area protected due to new construction works (in Lakh ha)	Target not amenable.

2. Farakka Barrage Project (FBP) - (Central Sector Scheme)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
2022-23	Output	Indicators	Target 2022-23	Outcome	Indicators	Targets 2022-23
110.98	1.Operation and maintenance of Farakka Barrage & associated	1.1. Replacement of old gates of Farakka Barrage - No. of old Crest gates replaced. 1.2. Replacement of old gates of Farakka Barrage - No. of old under sluice gates replaced.	4 1	1. Increasing upland supply through feeder canal thereby Improving the regime and navigability in the Bhagirathi Hooghly river system & Preservation of Kolkata Port. Successful	1.1. Feeder Canal facilitates smooth movement of vessels in Hooghly – Bhagirathi River System. (Yes / No)	Yes

¹for taking up new projects, a Committee under NITI Aayog has been constituted to finalise the contours of Scheme for post March, 2021 period.

	structures	1.3. Replacement of old gates of Farakka Barrage - No. of old fish lock gates of Farakka Barrage replaced.	4	Implementation of India-Bangladesh Ganges river water sharing treaty of 1996. Anti-erosion/ river training works to keep river flow in desired way to avoid outflanking of river. Additionally, to protect agricultural land and other properties from erosion.	1.2. 2500 cusecs of water supplied to the NTPC Thermal Power Plant from Feeder Canal (Yes / No)	Yes
		1.4. Replacement of Head Regulator Gate	09			
		1.5. Length of the river where River/Canal Bank Protection/anti erosion works are undertaken in the original jurisdiction of Farakka Barrage ² (in meters)	1000			

3. Development of Water Resources Information System (DWRIS) - (Central Sector Scheme)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators
185.00	1. Infrastructure Augmentation for collection of necessary data points under Water Resources Information System.	1.1. Hydro-meteorological data collection – Cumulative no. of hydro-meteorological observation sites where R&M has been done	1736	1. Maintaining robust network of hydro-meteorological data & future expansion	1.1. No. of Water Year books published for previous water year ³	120
		1.2. Collection of water quality data - Cumulative no. of Water Quality Monitoring Sites	764			

² This is proposed length of work. However, actual length will be decided with the approval of 116th TAC of FBP later

³ Water year is from 1st June to 31st May of next year, hence water year books of previous year i.e. from June 2021 to May 2022 can be published by March 2023

		where R&M has been done				
		1.3. Collection of water quality data - Cumulative no. of Water Quality labs where R&M has been done	25			
		1.4 (a) Cumulative number of reservoirs monitored for live storage	145			
		1.4.(b) Cumulative number of reservoirs monitored for live storage on real time basis	99			
2. Increase in coverage area and lead time under flood forecasting activity	2.1. Flood Forecasting - Cumulative no. of Flood Forecasting stations for which flood forecast are issued	334	2. i) Minimizing loss of life and property due to floods ii) 5-day advisory may give more time to authority to take appropriate action iii) Acquisition of data on real time basis iv) Predict extent of submergence at various levels of floods.	2.1 No. of forecasts generated from forecasting stations for timely evacuation of people, livestock	10,000 ⁴	
	2.2. 5-day advisory using hydro-dynamic models issued at no. of stations	334				
	2.3. Real-time data acquisition system installation – Cumulative no. of stations where Telemetry stations are installed& data is	1087		2.2 Acquisition of data from all Hydrological Observation Sites on real time basis (Done/Not Done)	Done	

⁴ However, the exact number of forecasts would depend upon the monsoon conditions in 2022-23, quarter wise breakup of target can't be provided, however actual forecast issued in each quarter will be provided.

		received				
		2.4. Real-time data acquisition system installation – Cumulative no. of additional stations where installations will be done	71		2.3 Approx. Area of the river basin where inundation forecasts services are provided. (in km ²)	67,000
		2.5. Cumulative no. of stations enabled with Inundation forecast using CWC-Google Collaboration.	71			
	3. Collection of Coastal data	3.1 Cumulative no. of sites under coastal management information system where R&M is to be done	8	3.1 Identification of various coastal processes and causes of erosion required for planning and design of coastal protection works.	No. of sites for which collected data is hosted on India-WRIS	10
		3.2 Cumulative no. of new sites opened under coastal management information system	2			

4. Ground Water Management and Regulation (GWM &R) - (Central Sector Scheme)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
	Output	Indicators	Targets 2022-23	Outcome	Indicators	Targets 2022-23
375.00	1. Preparation of aquifer maps and management	1.1. Total area (in lakh sq. km) for which aquifer map	4	1. Improved data/information and knowledge	1.1. Districts/Blocks equipped with aquifer management plans with	80 Districts

	plans to ensure sustainability of ground water resources.	and management plan has been prepared		base for sustainable management of ground water resources.	implementable interventions for ensuring long-term sustainability of ground water resources.	
	2. Status of dynamic ground water resources of the country	2.1. Incremental water level and water quality data generated through monitoring	~80,000 water level data & ~15,000 water quality data [Collected from ~20,000 water level monitoring stations (4 times a year) and ~15,000 groundwater quality monitoring stations (once a year)]	2.1 Improved understanding of the spatial and temporal changes in groundwater levels and groundwater quality to facilitate its judicious management	2.1 States/UTs for which updated information on behaviour of groundwater levels and groundwater quality are available through Ground Water Year Books	31 States/UTs
		2.2 Assessment of dynamic ground water resources of the country for the year 2022 ¹	National Compilation of Dynamic Ground Water Resources of India (As in 2022)	2.2 Updated State/UT wise information on the availability and status of utilisation of dynamic groundwater resources for sustainable management	2.2. States/UTs for which updated information on the availability and status of utilisation of groundwater is made available	36 States/UTs

	3. Regulation of ground water for sustainable management of ground water resources.	3.1 Number of No Objection Certificates (NOCs) for ground water extraction issued.	Targets not quantifiable	3.1 Regulation of ground water extraction by Industries, Infrastructure units and mining projects.	3.1 Number of annual compliance reports submitted. ⁵	Targets to be quantified based on NOC issued during 2021-22
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5. Research & Development (R & D) & National Water Mission (Central Sector Scheme) :

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators
52.88	A) Research & Development (R & D):					
	1. Increasing research & development base	1.1. No. of research/technical reports published ⁶	195	1. Improved indigenously developed technology use, increased officer capacities and wider research base utilization	1.1. No. of people trained by Capacity building sessions and at the additional facilities and research infrastructure created.	Targets not amenable
		1.2. No. of research papers published	300			
		1.3. Trainings and workshops conducted	60			

⁵ Compliance reports are to be submitted by the proponents after one year of issuance of NOC. No. of compliance reports will be pertaining to those proponents, who have been issued NOC in previous years.

⁶ This includes reports generated by Central Water Commission, Central Water and Power Research Station, Pune, Central Soil and Material Research Station, New Delhi and National Institute of Hydrology, Roorkee.

					1.2. No. of high impact (based on citations) technical report & research papers.	Targets not amenable
B) National Water Mission (NWM)						
1. Preparation of State Specific Action Plans for Water Sector	1.1. No. of States/UTs which have prepared and submitted Status Report on SSAP	12	1. Preparation of State Water Budget split-up	1.1 No. of states and UTs where the final SSAP reports after approval have been forwarded for the implementation of recommendations provided in the final SSAP reports.	5	
	1.2. No. of States/ UTs-Which have prepared and submitted Draft final Report (DFR) on SSAP	10				
	1.3. No. of states and UTs which have prepared and submitted the final report on SSAP.	06				
2. Human Resource Development and Capacity Building	2.1. No. of Workshops/ Webinars/ seminars/ talks etc. conducted	80	2. Capacity building of various stakeholders for water conservation/water use efficiency.	2.1.No. of beneficiaries who attended the Workshops/ Webinars/ seminars/ talks etc. and benefited.	5,00,000	
	2.2. No. of Human Resource Development and Capacity Building Training Programmes conducted	12				2.2 No. of people trained.

	3. Studies on Water Use Efficiency (WUE) and recommendations to increase WUE in Agriculture Sector.	3.1. No. of irrigation projects for which final reports have been prepared and submitted on baseline studies for evaluation of WUE.	10	3. Increase in Water use efficiency in Agriculture Sector.	3.1. No. of states and UTs where the recommendations, provided in the reports on baseline studies, have been forwarded for implementation.	6
	4. Studies on Water Use Efficiency (WUE) and recommendations to increase WUE in Industrial Sector.	4.1. No. final report prepared and submitted on benchmarking study for evaluation of WUE in industries (steel, thermal, textile and pulp & paper).	1	4. Increase in Water use efficiency in Industrial Sector.	4.1. No. of line Ministries/ Departments/ Organisations where recommendations, provided in the report on baseline study, have been forwarded for implementation.	12

6. National River Conservation Plan (Other than Ganga Basin) (Centrally Sponsored Scheme)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators
250.68	1. Sewerage system to prevent untreated sewage entering the rivers.	1.1. Length of sewer network laid (in km)	105	1. Prevention of raw sewage from entering the water bodies, land, etc, and thus reducing water pollution and environmental degradation	1.1. Volume of raw sewage intercepted/ channelized and diverted to STP for treatment (mld)	Target not amenable.
		1.2. Sewage treatment capacity created (mld)	23.45	2. Reduction in organic pollution load	2.1. Volume of sewage inflow to STPs and the treatment efficiency (kg/day)	3,450

		1.3. Length of effluent channel (of 2000 mm dia) created for disposal of treated effluent (in km)	2	3. Effective utilization of treated waste water, and thus minimizing the impact on fresh water resources	3.1. Volume of sewage treated worth reuse/recycle. (mld)	Target not amenable.
	2. Communications and outreach work	2.1 Number of campaigns conducted.	3	4. Awareness generation and the need for conservation of rivers	4.1. No. of people (general public, students and other stakeholders) made aware about ill effects of pollution in rivers.	Target not amenable.
	3. Project completion status to assess cost and time overrun	3.1 No. of projects with civil works completed on time.	1			

7. River Basin Management (RBM) - (Central Sector Scheme)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2022-23			OUTCOMES 2022-23		
	2022-23	Output	Indicators	Targets 2022-23	Outcome	Indicators
97.00	a) Investigation of Water Resources Development Schemes – National Water Development Agency (NWDA):					
		1. Priority links / Detailed Project Reports (DPRs) completion	1.1. Ken-Betwa link project implementation activities, formation of special purpose vehicle and	Done	1. All the interlinking of river projects will provide long term outcomes of increase in CCA, power generation and make water available for	1.1. Ken-Betwa Phase-I&II Project (On Completion) CCA(in lakh

		preparatory work for construction. ⁷ (Done/NotDone)		various uses ⁸	ha.) MP: 6.57 UP : 2.51 Total: 9.08 Drinking Water Supply for 63 Lakh population of UP and MP. Power Generation: Hydro: 103MW Solar: 27MW Total power generation: 130 MW	Target not amenable. ⁹
		1.2. Damanganga-Pinjal link project: Obtaining clearances, efforts to build consensus among party States for signing of MoU (Done/Not Done)	Done		1.2. Drinking Water Supply - 579 MCM for Mumbai City (excluding Pinjal component) Power Generation - 5 MW	Target not amenable.
		1.3. Par-Tapi-Narmada link project: Completion of CEIA studies and obtaining	Done		1.3. Annual Irrigation: 2.32 Lakh ha in Drought Prone	Target not amenable.

⁷ Post DPR activities like obtaining balance clearances, additional surveys for identified storage sites in UP side, revision of DPR of Phase-I etc. Formation of Special Purpose Vehicle (SPV) for the implementation of KBLP. Carry out preparatory works for construction of various components of KBLP etc.

⁸ The construction will start only after all statutory clearances and will take about 6 to 8 years. So, the outcome will commence after implementation of any ILR project.

⁹ On implementation, the project will provide the benefits as furnished in outcome indicators.

		clearances, efforts to build consensus among party States for signing of MoU (Not Done / Done)			Areas in Gujarat Drinking Water Supply :76 MCM including Tribal Area Power Generation :21 MW	
		1.4. Godavari-Cauvery link project: Consensus building amongst states for its implementation and initiating process for obtaining clearances etc (Not Done / Done)	Done		1.4. Annual Irrigation: 9.38 lakh ha Municipal & Industrial needs: 905 MCM.	
		1.5. Kosi - Mechi intra-state link project - Assisting State of Bihar in the implementation of the link (Not Done / Done)	Done		1.5. Annual Irrigation: 2,14,812 ha	Target not amenable.
	2. Preparation of Detailed Project Reports	2.1 Bedti Varada link project (Not Done/Done)	Done		1.6. (As per PFR) Irrigation: 60,200 ha Power Generation: 3.6MW	Target not amenable.
		2.2 Damanganga (Ekdare) - Godavari intra-state link project (Not Done/Done)	Done		1.7. (On Completion) CCA: 16505 ha. Domestic Water Supply: 22 MCM	Target not amenable.

		2.3 Damanganga-Vaitarana-Godavari intra-state link project (Not Done/Done)	Done		1.8. CCA: 15484 ha. Drinking and Industrial Water Supply: 40MCM	Target not amenable.
		2.4 Cauvery - Vaigai - Gundar link project: Post DPR activities in consultation with State (Not Done / Done)	Done		1.9. Annual Irrigation: 4.48 lakh ha Domestic & Industrial water supply:218 MCM	Target not amenable.
		2.5 Mahanadi-Godavari link project: i) Attending the comments / views of party States and finalisation of FR ii) Preparation of DPR (Not Done / Done)	Done		1.10. Annual Irrigation: 4.43 lakh ha Domestic & Industrial water supply:700 MCM	Target not amenable.
		2.6 Manas-Sankosh-Teesta-Ganga link project: (Done/ Not Done)	Done		1.11. CCA - 3.41 lakh ha. in Assam, West Bengal & Bihar Quantity to be delivered at tail end: 31,224 MCM	Target not amenable.
		2.6 Parbati-Kuno-Sind link project (integration of PKC with ERCP) Preparation of DPR (Not Done/Done)	Done		1.12. Annual Irrigation – 1.67 lakh ha. Domestic & Industrial Water Supply – 691 MCM	Target not amenable.

3. Feasibility Reports (FRs)	3.1 Sone dam-Southern Tributaries of Ganga (STG) link project (Not Done / Done)	Done		1.13. (As per PFR) Irrigation: 3,07,000 ha Power Generation: 95 MW Domestic & Industrial water supply: 360 MCM	Target not amenable.
	3.2 Kosi-Ghaghra link project (Not Done / Done)	Done		1.14. (As per PFR) Irrigation: 3.07 lakh ha (including 1.74 lakh ha in Nepal) Domestic & Industrial water supply : 48 MCM Irrigation water use: 7,291 MCM	Target not amenable.
	3.3 Gandak-Ganga link project - (Not Done / Done)	Done		1.15.(As per PFR) Irrigation: 40.40 lakh ha (including 2.41 lakh ha in Nepal) Power Generation: - 3,245 MW Domestic & Industrial water supply: 700 MCM	Target not amenable.

b. RBM: Investigation of Water Resources Development Schemes – CWC component:						
	1. DPR preparation of Projects after detailed Survey and Investigations and studies on hydrological, Irrigation Planning environment aspects, cropping pattern Crop water requirement etc.	1.1 Investigation works for preparation of DPRs for the Barinium HEP, J&K (Not Done / Done)	Done	1.Preparation of bankable Detailed Project Reports (DPR) of the project is the first step for development and execution of water resources Projects.	1.1 Field Survey & Investigations and completion of writing of various chapters of DPR of Barinium HEP, J&K.	Target not amenable.
		1.2 Investigation works for preparation of DPRs for the Madhura Irrigation Project, Assam (Not Done/Done)	Done	2. Preparation of bankable Detailed Project Reports (DPR) of the project is the first step for development and execution of water resources Projects. Based upon DPR, State or any other	2.1 Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Madhura Irrigation Project, Assam CCA envisaged – 13,000 Ha	Target not amenable.

				agency may undertake execution of project.		
		1.3 Investigation of balance works for preparation of DPRs for the Mat-Sekawi, H.E. Project Mizoram (Not Done/Done)	Done	3. Preparation of bankable Detailed Project Reports (DPR) of the Preparation of bankable Detailed Project Reports (DPR) of the project is the first step for development and execution of water resources Projects. Based upon DPR, State or any other agency may undertake execution of project.	3.1 Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Mat-Sekawi, H.E. Project Mizoram Power Generation Capacity envisaged – (120MW)	Target not amenable.
		1.4 Investigation works for preparation of DPRs for the Tuichang H.E.Project,	Done	4. Preparation of bankable Detailed Project Reports	4.1 Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Tuichang	Target not amenable.

		Mizoram (Not Done/Done)		(DPR) of the project is the first step for development and execution of water resources Projects. Based upon DPR, State or any other agency may undertake execution of project.	H.E.Project, Mizoram	
		1.5 Submission of Feasibility Report and Investigation works for preparation of Buroi Medium Irrigation Project, Assam (Not Done/Done)	Done	5. Preparation of bankable Detailed Project Reports (DPR) of the project is the first step for development and execution of water resources Projects.	5.1 Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Buroi Medium Irrigation Project, Assam CCA envisaged – 8,830 Ha	Target not amenable.

		1.6 Submission of Feasibility Report and Investigation works for preparation of Medium Irrigation Project in Mebo Area, Arunachal Pradesh (Not Done/Done)	Done	6. Preparation of bankable Detailed Project Reports (DPR) of the project is the first step for development and execution of water resources Projects.	6.1 Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Medium Irrigation Project in Mebo Area, Arunachal Pradesh.	Target not amenable.
		1.7 Investigation works for the Drass-Suru Link HE Project in UT of Ladakh (Not Done/Done)	Done	7. Preparation of bankable Detailed Project Reports (DPR) of the project is the first step for development and execution of water resources Projects.	7.1 Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Drass-Suru Link HE Project.	Target not amenable.
		1.8 Investigation works for preparation of DPR for Irrigation Schemes for irrigation structures on two locations in the Adhwara Group	Done	8. Preparation of bankable Detailed Project Reports (DPR) of the project is the first step for	8.1 Preparation of bankable Detailed Project Reports (DPR)	Target Not Amenable

		of Rivers in Sitamarhi District (Not Done/Done)		development and execution of water resources Projects.		
		1.9 Investigation works for preparation of DPRs for the Damring Irrigation Project, Meghalaya (Not Done/Done)	Done	9. Preparation of bankable Detailed Project Reports (DPR) of the project is the first step for development and execution of water resources Projects. Based upon DPR, State or any other agency may undertake execution of project.	9.1 Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Damring Irrigation Project, Meghalaya. CCA envisaged – 7990 Ha	Target not amenable.
	2. Seismological observations in Sankosh Basin	2.1 Continuation of Seismological observations (Not Done/Done)	Done	10. Seismological observations to be made in Sankosh Basin for Optimum design of Sankosh Multipurpose project.	10.1 Continuation of Seismological Observations at 6 locations (4 in Bhutan and 2 in India) in the vicinity of Sankosh Multipurpose Project	Done

c) RBM- Brahmaputra Board component:						
	1. Completion of ongoing / new anti-erosion, drainage development works	1.1. No. of locations where bank protection work shall be executed	6	1. Increased protection against flood & erosion, reduced drainage congestion and reclamation of agricultural land a better infrastructure/environment for working, Improve indigenous water management practices and improvement of environmental condition of some historically important places near river	1.1. Area of land secured from floods and erosion of river Umngi in Balat Village in Meghalaya. (in ha)	300
					1.2. No. of people of Balat Village in Meghalaya secured from floods and erosion of river Umngi.	3250
					1.3. Protection of no. of Villages in Dholla Hatighuli area in Tinsukia District of Assam	11
					1.4. Protection of an area in DhollaHatighuli in Tinsukia District of Assam (in ha.)	2400

					1.5. Protect large Agricultural land, Sisumara BoP at Kalair-Alga Indo-Bangla Border (IBB) Link Road and Indo-Bangla Border fencing in South Salmara Mankachar district, Assam.(Done/Not Done)	Done
					1.6 Area of land protected Bhogdebri area on the Right Bank of River Mansai in Cooch Behar district in West Bengal. (in ha)	128
					1.7. No. of beneficiaries in Bhogdebri area on the Right Bank of River Mansai in Cooch Behar district in West Bengal.	2000

					1.8. Protection of no. of Villages in Lipu, Liru Village, Likabali township including BRO hq Likabali Army Division in Arunachal Pradesh;	2 Nos. of Villages 1 (one) No. township
					1.9. No. of beneficiaries in Protection in Lipu, Liru Village, Likabali township including BRO hq Likabali Army Division in Arunachal Pradesh;	3154
					1.10. Protection of no. of Villages in Remi River from Mirem Village to Oyan Village through Remi, Miglung, Mangnang, Baro Mile and Sile, East Siang	7

					District in Arunachal Pradesh	
					1.11. No. of beneficiaries in Protection in Remi River from Mirem Village to Oyan Village through Remi, Miglung, Mangnang, Baro Mile and Sile, East Siang District in Arunachal Pradesh	12600
					1.12. Protection of Amarpur area on right bank of original channel of river Dibang(Not Done/Done)	Done
		1.2 Establishment of North East Data Water Resources Data Centre – Roadmap (Not Done/Done)	Done		1.13.Single widow facility for water resources data of NER for preparation of Schemes / Projects and	Not Done ¹⁰

¹⁰ As the roadmap is being prepared this year establishment is not planned to be completed.

					scientific and research (Not Done)	
		1.3 Scientific dissemination and Improvement of Water Management Practices of indigenous people of NE – Replicate the practices of Apatani people in Pakke Valley	Done		1.14 Upgrade and popularise traditional practices of Apatani people in Zero Vally in Pakke Valley , Arunachal Pradesh(Not Done/Done)	Done
		1.4 Non-Conventional and Bio-Engineering Measures for Basin Management along South bank of river Brahmaputra in Majuli Island (Not Done/Done)	Done		1.15 Testing of a new sustainable measure of flood management(Not Done/Done)	Done
	2. Preparation of river basin Master Plans related to flood controls, bank erosion and improvement of	2.1 No. of Master Plans prepared/modified	3		1.16 Total 6158 ha area in 15 villages to be covered under land protection from flood &	0 ¹¹

¹¹ Basic data/preliminary reference for preparation of DPR for implementation of water resources projects will be available.

drainage as well as Irrigation Projects. Preparation of DPRs of Multipurpose projects.				erosion. Total estimated economic benefit from land protection from flood & erosion is Rs. 224.95 lakh. Total 10085ha irrigation potential will be created from the projects for which Master Plans have been prepared.	
	2.2 No. of DPR for MP Project	2		1.17 Draft to be ready for placing for Techno-economic clearance(Not Done/Done)	Done
	2.3 Execution of Amjur and Borbhag DDS	3		1.18 Area where drainage congestion is reduced in Barbhag area in Nalbari district of Assam on project completion – 6250 ha(Not Done/Done)	Done

		2.4 Continuation of upgradation & operation of NEHARI continued (Done/to be continued)	Done		1.19 Continuation of Running & Maintenance of Assets (Done/ to be continued)	Target not amenable. ¹²
		2.5 Continuation of R & M of assets created by Board (Done/to be continued)	Continued		1.20 Continuation of Running & Maintenance of Assets (Done/ to be continued)	Done
		2.6 % progress of construction work for the development of infrastructures of Board to carry out the work of protection of Majuli Island	100%		1.21 Creation of infrastructure at Majuli Island for monitoring the works executed and their up keeping(Not Done/Done)	Done
		2.7 Development of IT & GIS (Not Done/Done)	Done		1.22 Development of IT infrastructure	Target not amenable.
		2.8 Flood Management and erosion Control measures at Majuli Island- Continuing Scheme (Not	Done		1.23 (i) Area of land come under protection in the Vaishnavite Cultural Centre- Majuli Island. (in Ha)	31,921

¹²Applicable upon project completion.

		Done/Done)			1.23 (ii) No. of population come under protection in the Vaishnavite Cultural Centre-Majuli Island.	1,15,000
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8. Dam Rehabilitation and Improvement Project (DRIP) Phase-II (Central Sector Scheme)

Financial Outlay 2022-23	OUTPUTS 2022-23			OUTCOMES 2022-23		
	Output	Indicator(s)	Target	Outcome	Indicator(s)	Target
100.00	1. Activities agreed to meet the defined objectives of Schemes as defined under Outcome	1.1. Inspections by State specific Dam Safety Review Panel (Nos)	100	1. Improvement in the safety and operational performance of selected dams by physical rehabilitation	1.1. Contract(s) awarded (in Rs crore)	800
		1.2. Design Flood Reviews conducted (Nos)	120			
		1.3. Rehabilitation proposals in form of Project Screening Templates finalized (Nos)	50			
		1.4. Tender(s) published (in Rs crore)	1000			
		1.5. Dam specific Environment and Social Due Diligence finalized (Nos)	50			

		1.6. Dam specific Environment and Social Management Plan finalized (Nos)	50			
	2. Capacity building of DRIP officials of Water Resources	2.1. No. of customized training programs conducted	10	2. Capacity building of the partner agencies in various areas to strengthen their capability to efficiently handle all activities related to dam safety management	2.1. Planned improvement in capacity of Implementing Agencies in various areas including Design Flood Review, Procurement Management, Financial Management and Environment and Social Safeguards etc (Nos of officials trained)	300
		2.2. No of International Dam Safety Conference	1			
