

# **GOVERNMENT OF INDIA**

Ministry of Jal Shakti

# DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

**OUTPUT-OUTCOME MONITORING FRAMEWORK DOCUMENT: 2021-22** 

**DEMAND NO. 61** 

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION (Schemes with financial outlays Rs. 500 crore or more)

# Ministry of Jal Shakti

Demand No. 61

#### Department of Water Resources, River Development and Ganga Rejuvenation

FINANCIAL OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2020-21</b>			DUTCOMES 2021-22	
2021-22	Output	Indicators	Target 2021-22	Outcome	Indicators	Target 2021-22
850.01	1. Preventing direct discharge of sewage into Ganga and	1.1. Cumulative Sewage Treament Capacity Installed (in MLD)	28	1. Treatment of sewage before discharge into Ganga for improved water quality and to achieve prescribed	<ul> <li>1.1. Volume of sewage treated before being discharged into Ganga (in MLD)</li> <li>1.2. Average B.O.D content (≤ mg/l)</li> </ul>	Target not amenable.
	treatment of sewage.	1.2. Cumulative Sewage Treament Capacity Opertational (in MLD)	28	bathing standards by 2022.	1.3. Average D.O. content (≥ mg/l)	5

#### 1. National River Conservation Plan – Namami Gange (CS)

#### 2. National Ganga Plan and Ghat Works – Namami Gange (CS)

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2021-22				OUTCOMES 2021-22			
2021-22	0	utput	Indicators	Target 2021-22	Οι	utcome	Indicators	Target 2021-22
600.01	a. Natio	nal Ganga Pla	n					
		ion nent through tion of direct	1.1. Change in % of non- complying Grossly Polluting Industries.	100%	to achie	ed water quality we prescribed standards by	1.1. Average B.O.D content (≤ mg/l)	3
	indust Ganga	arge of crial waste in a and oring of	1.2. Number of additional Manual water quality monitoring stations installed.	0	2022.		1.2. Average D.O. content (≥ mg/l)	5

FINANCIAL OUTLAY (Rs. In Cr.)	(	OUTPUTS 2021-22		OUTCOMES 2021-22				
2021-22	Output	Indicators	Target 2021-22	Outcome	Indicators	Target 2021-22		
	water quality.	1.3. Cumulative number of Manual water quality monitoring stations installed.	97					
		1.4. Number of additional Real Time water quality monitoring stations installed	40 <sup>83</sup>					
		1.5. Cumulative number of Real Time water quality monitoring stations installed.	76					
	2. Preventing direct discharge of sewage into Ganga	2.1. Cumulative Sewage Treatment Capacity installed (in MLD)	280	2. Improved water quality to achieve prescribed bathing standards by	2.1. Volume of sewage treated before being discharged into Ganga.	Target not amenable		
	and treatment of sewage.	2.2. Cumulative Sewage Treament Capacity Operational (in MLD)	280	2022.	(in MLD)			
	3. Maintaining cleanliness on river	3.1. No. of ghats newly constructed.	7	3. Increasing social outreach for public	3.1.% change in footfalls at the Ghat and	Target not amenable		
	edges and better infrastructure for social and cultural activities.	3.2. No. of ghats modernized/ rennovated.	0	participation and encouraging healthy and hygenic practices.	crematoria.			
	4. Better infrastructure for	4.1. No. of crematoria newly constructed	2	]				

<sup>&</sup>lt;sup>83</sup> 40 new RTWQMS to be installed, 36 existing RTWQMS

FINANCIAL OUTLAY (Rs. In Cr.)	(	<b>DUTPUTS 2021-22</b>		OUTCOMES 2021-22				
2021-22	Output	Indicators	Target 2021-22		Outcome	Indicators	Target 2021-22	
	cremation rituals, preventing unburnt bodies disposed into river Ganga	4.2. No. of crematoria modernized/ rennovated	0					
	5. IEC Activities	5.1. IEC activities during Ganga Swachhta Pakhwada, Swachhta Hi Sewa and Vriksharopan Abhiyaan etc.), events during local festivals & ocassions, exhibitions during events related to Water & Waste-water management & other events of public importance. (Done- Yes/No)	Yes	4.	Awareness and behaviour change through IEC activities.	4.1.% recall of the campaign and its attributes from perception survey.	Target not amenable.	
	6. Planning and management for Aquatic species conservation and maintenance of Ecosystem services	6.1. No. of ecological surveys to be carried out in all (8) the trubutaries of Ganga basin.	2	5.	Usage of species distribution information in development of scientific and outreach materials in digital and print media.	5.1. No. of beneficiaries provided with scientific and outreach materials.	1,000	
	in the Ganga river basin for a clean Ganga.	6.2. No. of trainings conducted for various staeholders (Forest Departments,	15	6.	Establishment of Spearhead teams of states at select tributaries in the Ganga	6.1. Time devoted to conservation activities by trained manpower carrying forward in	1,000	

FINANCIAL OUTLAY (Rs. In Cr.)	(	OUTPUTS 2021-22		OUTCOMES 2021-22				
2021-22	Output	Indicators	Target 2021-22		Outcome	Indicators	Target 2021-22	
		veterinarians, local community etc.) carrying out biodiversity and river habitat monitoring, and rescue operations.			basin.	their respective states. (in persondays)		
		6.3. No. of awareness and sensitization workshops carried out in Ganga basin.	100	7.	Generating awarenss and mobilizing local communities and other stakeholders towards river and biodiversity conservation.	7.1.No. of stakeholders sensitized and mobilized.	1000	
		6.4 No. of training programs conducted for livelihood development.	20	8.	Adoption of sustainable livelihood practices by the local communities and other stakeholders.	8.1. No. of beneficiaries trained and practicing sustainable livelihood activities.	500	
		6.5 No. of Ganga Praharis enrolled in the cadre.	100	9.	Ganga Praharis involved in conservation activities.	9.1. Time devoted by Ganga Praharis to conduct conservation activities. (in persondays)	1,000	
		6.6 No. of Carp fingerlings ranched in selected stretches Ganga in UP, Bihar and West Bengal.	8,00,000	10.	Improved fish biodiversity of river Ganga. Increased awareness about conservation of fish	10.1.Improved catch per unit hour of effort.	Target not amenable	

FINANCIAL OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22				
2021-22	Output	Indicators	Target 2021-22	Outcome	Indicators	Target 2021-22		
		6.7 No. of Mahaseer (keystone species) brooders developed.	50	biodiversity among fisherman communities.	10.2. Increase in Mahaseer population (by experimental fishing or surveying the fishermen) (in kgs)	Target not amenable <sup>84</sup>		
		6.8 No. of adult Hilsa ranched in Farraka stream.	7,000		10.3. Increased availability of Hilsa upstream of Farraka upto Allahabad (Yes/No)	Yes		
		6.9 No. of site- specific awareness cum trainings conducted for the fishers.	50		10.4.No. of fishermen trained.	1,500		
	7. Increasing area afforested area.	7.1 Additional Area Covered under afforestation (in ha.) <sup>85</sup>	5,000	11. Improvement in quality and quantity of precipitation, which	11.1.% survival of the plants.	Target not amenable <sup>86</sup>		
		7.2 Cumulative afforested area being maintained (period of 5 years) (in ha)	26,764	would contribute to the objective of improving the wholesomeness of the river and aviral dhara.				
	b. Ghat works and	Beautification of river Fronts						
	1. Maintaining cleanliness on rive		2	1. Increasing social outreach for public	1.1. Increased footfall at the Ghat and	Target not amenable.		
	edges and better	1.2. No. of Crematoria to	4	participation and	crematoria.			

<sup>&</sup>lt;sup>84</sup> Since the brooder development will take 2-3 years, the outcomes shall only be measures post breeding raising fingerling and ranching. <sup>85</sup> carried out by MoEF&CC through National & State CAMPA fund.

<sup>&</sup>lt;sup>86</sup> An intermediate outcome. A mid-term evaluation is planned for the period FY 16-20 and will be conducted in FY 21-22.

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2021-22			OUTCOMES 2021-22		
2021-22	Output	Indicators	Target 2021-22	Outcome	Indicators	Target 2021-22
	infrastructure for social and cultural activities	be newly constructed.		encouraging healthy and hygenic practices.		

#### 3. Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) (CSS)

FINANCIAL OUTLAY (Rs. In Cr.)		OUTPUTS 2021-22			C	OUTCOMES 2021-22	
2021-22	Output	Indicators	Target 2021-22		Outcome	Indicators	Target 2021-22
5,588.49	a. Accelerated I	rrigation Benefits Programme (	(AIBP)				
HKKP Budgetary Resources [Includes debt servicing of Rs. 3600.00 Cr.]	1. Expedited Implementati on of AIBP works for 40 projects (including phases).	1.1.No. of AIBP projects targeted for completion by March 2022.	10		Creation of additional irrigation potential	<ul> <li>1.1. Total additional Irrigation Potential Created (in lakh Ha) through PMKSY - AIBP</li> <li>1.2.% of Irrigation Potential Utilized through infrastructure created through PMKSY -AIBP</li> </ul>	3.5
		1.2. No. of AIBP projects likely to be completed (Cumulative)	54	i i	Resulting in increase in yield of crops & income of farmers; replenishment of	2.1 Increase in crop yield attributable to increased irrigation from PMKSY - AIBP	Target not amenable

<sup>&</sup>lt;sup>87</sup> on completion of CADWM, agriculture extension works etc.

FINANCIAL OUTLAY (Rs. In Cr.)			<b>OUTPUTS 2021-22</b>			(	OUTCOMES 2021-22	
2021-22		Output	Indicators	Target 2021-22		Outcome	Indicators	Target 2021-22
						ground water and increased water availability for other uses.	2.2 Increase in groundwater levels attributable to PMKSY -AIBP	Target not amenable
	b.	Har Khet Ko						
	i.	Command Are	ea Development & Water Mana	agement (C	CAD	WM)		
	1.	CADWM works in the identified prioritised	<ul><li>1.1. Additional Culturable</li><li>Command Area (ha)</li><li>covered (in lakh ha)<sup>88</sup></li></ul>	2	1.	Reduce the gap between Irirgation potential created and utilized	1.1. Utilisation of irrigation potential in additional culturable command area (in lakh ha.)	2
		projects	1.2. Additional no. of Water User's Associations created	400	2. Strengthen participatory irrigation management     2.1	2.1 Command area (in lakh ha) covered for participatory irrigation management through the Water User Associations formed.	2	
			<ul> <li>1.3. No. of assets handed over to the Water User's Associations<sup>89</sup> (Additional)</li> </ul>	300				
	ii.	Surface Minor	· Irrigation (SMI) & Repair, Re	enovation a	and			
	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	1.	Creation of additional irrigation potential	1.1. Additional irrigation potential created (in lakh ha)	0.5
	iii.	Ground Wate	r	1	I		1	I
	1.	Creation of	1.1.No. of wells constructed	2,512	1.	Development of	1.1. Creation of additional	3,768

 <sup>&</sup>lt;sup>88</sup> CAD works in balance Culturable Command Area (CCA) of 2.00 lakh ha
 <sup>89</sup> 2900 Assets that have been handed over to no. of WUAs and Cumulative WUAs created till date is 9391.

FINANCIAL OUTLAY (Rs. In Cr.)			<b>OUTPUTS 2021-22</b>			(	DUTCOMES 2021-22	
2021-22		Output	Indicators	Target 2021-22		Outcome	Indicators	Target 2021-22
		Ground water abstraction	with pumps, Pipes/ in safe <sup>90</sup> blocks/districts:			additional Irrigation potential.	command area (in ha)	
		structures: Gujarat	Gujarat		2.	Irrigation facility to farmers.	2.1. Numbers of farmers benefitted	3,655
	2.	Creation of Ground water abstraction	2.1. No. of wells constructed with pumps, pipes in safe <sup>91</sup> blocks/districts:	519	3.	Development of additional Irrigation potential.	3.1. Creation of additional command area (in ha)	1,957
		structures: Arunachal Pradesh- Phase-II	Arunachal Pradesh Phase –II.		4.	Irrigation facility to farmers.	4.1. Numbers of farmers benefitted	3,633
	3.	Creation of Ground water abstraction	3.1. No. of wells constructed with pumps, pipes in safe <sup>91</sup> blocks/districts:	262	5.	Development of additional Irrigation potential.	5.1. Creation of additional command area (in ha)	667
		structures: Nagaland	Nagaland		6.	Irrigation facility to farmers.	6.1. Numbers of farmers benefitted	264
	4.	Creation of Ground water abstraction	4.1.No. of wells constructed with pumps, pipes in safe <sup>91</sup> blocks/districts:	550	7.	Development of additional Irrigation potential.	7.1. Creation of additional command area (in ha)	2057
		structures: Manipur	Manipur		8.	Irrigation facility to farmers.	8.1. Numbers of farmers benefitted	1,445
	5.	Creation of Ground water abstraction	5.1. No. of wells constructed with pumps, pipes in safe <sup>91</sup> blocks/districts:	209	9.	Development of additional Irrigation potential.	9.1. Creation of additional command area (in ha)	553
		structures: Mizoram	Mizoram		10.	Irrigation facility to farmers.	10.1.Numbers of farmers benefitted	411

<sup>90</sup> After the implementation of scheme Stage of GW development should not exeed 70%.

FINANCIAL OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		(	OUTCOMES 2021-22	
2021-22	Output	Indicators	Target 2021-22	Outcome	Indicators	Target 2021-22
	c. Irrigation	Census -Standalone componen	t			
	1. Conducting census of water bodies in convergence	1.1. No. of states where field work for 6 <sup>th</sup> MI Census and first Census of Water Bodies has been completed <sup>91</sup>	14	<ol> <li>Informed planning and policy formulation in Minor Irrigation Sector.</li> </ol>	1.1.No. of downloads of census reports - 6th MI Census as well as Water Bodies	Target not amenable. 92
	with of 6th MI Census	1.2. No. of states/UTs completing data processing activities including data entry and validation (which are likely to finish the field work for 6th MI Census	14		<ul> <li>1.2. No. of data requests received from institutions and organizations (private and public) - 6th MI Census as well as Water Bodies Census</li> </ul>	Target not amenable. <sup>9</sup> <sup>2</sup>
		and Census of Water Bodies in FY: 2021-22.)			1.3. No. of citations / references for the census report created - 6th MI Census as well as Water Bodies Census	Target not amenable. <sup>9</sup>
	d. Special Pa	ackage for Irrigation projects in	Maharasl	ntra		
	1. Expeditious implementati on of Major	1.1.No. of Major & Medium Irrigation (MMI) projects completed by March' 22.	5	1. Creation and utilization of additional irrigation	1.1. Additional irrigation potential created (in Lakh Ha.).	1.5
	& Medium			potential in the	1.2. Irrigation Potential utilised <sup>93</sup>	100%94

 <sup>&</sup>lt;sup>91</sup> 7 states have completed the field work, 12 states likely to complete by Dec 2020. Data entry and validation to be completed for these 19 states by the end of FY 20-21. Rest 14 states to complete the field work, data entry and validation by Dec '21.
 <sup>92</sup> The 6th MI Census & Census of Water Bodies has been launched in 2018-19. The report of the Census is likely to be published in 2021-2022 due to delay in completion of field work which

may be attributed to ongoing pandemic. The targets would, therefore, be operational only after the census reports have been published.

FINANCIAL OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		(	DUTCOMES 2021-22	
2021-22	Output	Indicators	Target 2021-22	Outcome	Indicators	Target 2021-22
	Irrigation (MMI) and Surface			command of the projects under special package		
	Minor Irrigation (SMI) Project	1.2. No. of Surface Minor Irrigation (SMI) projects completed by March' 22.	65	2. Resulting in increase in yield of crops & income of farmers; replenishment of ground water and	2.1. Increase in crop yield attributable to increased irrigation from Special Package for Irrigation projects in Maharashtra	Targets not amenable.
				increased water availability for other uses.	2.2. Increase in groundwater levels attributable to Special Package for Irrigation projects in Maharashtra	Targets not amenable.

<sup>&</sup>lt;sup>93</sup> IPU is dependent upon CADWM works, agriculture extension works etc. <sup>94</sup> on completion of CADWM, agricultural extension works, etc.

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

### Department of Water Resources, River Development and Ganga Rejuvenation

### Category-B (Schemes with financial outlay less than Rs. 500 Cr.)

1.	Flood Management &	& Border Areas Programme	(FMBAP) (Centrally Si	ponsored Scheme)
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FINANCIAL OUTLAY- (Rs. In Cr.)	UTLAY- OUTPUTS 2021-22			OUTCOMES 2021-22				
2021-22	Output	Indicators	Target 2021-22		Outcome	Indicators	Target 2021-22	
342.99	<ol> <li>Execution of river management, anti- erosion, Flood Control, Restoration of Damage Flood Management Works and anti-sea erosion works in critical areas.</li> </ol>	1.1. Total no. of ongoing flood management works completed <sup>1</sup>	15	1.	Reduction in damage due to floods, river erosion in selected river catchments.	<ul><li>1.1. Total population benefited under the intervention</li><li>1.2. Total area protected due to new construction works (in Lakh ha)</li></ul>	Target not amenable. Target not amenable.	
	2. Expedite the finalisation of DPR of Pancheswer Multipurpose project (PMP) by both India and Nepal, related pre-	2.1. Finalization of DPR of Pancheswer Multipurpose project by both India and Nepal (Yes/No)	Yes	2.	Water management, reduction in damage due to floods, river erosion in selected river catchments	<ul><li>2.1 The Pancheswar Multipurpose project, when constructed and becomes operational would provide following benefits:</li><li>Power: 5040 MW (2520</li></ul>	Target not amenable. <sup>2</sup>	

<sup>&</sup>lt;sup>1</sup> for taking up new projects, a Committee under NITI Aayog has been constituted to finalise the contours of Scheme for post March, 2021 period. <sup>2</sup> Since the project is in DPR/ Investigation stage, there is no measurable outcome.

FINANCIAL OUTLAY- (Rs. In Cr.)	OU	TPUTS 2021-22		OUTCOMES 2021-22			
2021-22	Output	Indicators	Target 2021-22	Outcome	Indicators	Target 2021-22	
	construction activities of PMP and preparation of DPR of Sapta Kosi High Dam & Sun- Kosi dievrsion			and related pre- construction activities and generation of power.	MW to India and 2520 MW to Nepal) Irrigation: 0.43 million Ha (0.26 Mha to India + 0.17 Mha to Nepal)		
	scheme etc as well as other flood management works in border area projects	2.2. Action taken for preparation of DPR of Sapta Kosi High Dam and Sub-Kosi diversion scheme (Yes/No)	Yes		2.2 The Sapta Kosi High Dam, when constructed and becomes operational would provide following benefits: Power (in MW) Irrigation (in million Ha)	Target not amenable. <sup>2</sup>	
		2.3. Maintenance of embankments in river Kosi & Gandak in Nepal portion. (Yes/No)	Yes		<ul><li>2.3 Total population benefited by the maintenance of embankments in river Kosi &amp; Gandak in Nepal portion.</li></ul>	Target not amenable. <sup>2</sup>	

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

FINANCIAL OUTLAY (Rs. In Cr.)	OUTPUTS 2021-22				OUTCOMES 2021-22				
2021-22	Output	Output Indicators Targ 2021 22		Outcome		Indicators	<b>Targets</b> 2021-22		
97.00	1. Operation and	1.1.Replacement of old gates of Farakka Barrage - No.	24		Increasing upland supply through feeder canal	1.1. Feeder Canal facilitates smooth movement of vessels	Yes		

FINANCIAL OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22				
2021-22	Output	Indicators	Targets 2021- 22	Outcome	Indicators	Targets 2021-22		
	maintenan ce of Farakka Barrage & associated structures	of old Crest gates replaced. 1.2. Replacement of old gates of Farakka Barrage - No. of old under sluice gates replaced. 1.3. Replacement of old gates of Farakka Barrage - No. of old fish lock gates of Farakka Barrage replaced.	6	thereby Improving the regime and navigability in the Bhagirathi Hoogly river system & Preservation of Kolkata Port.Successful Implementation of India- Bangladesh Ganges river water sharing treaty of 1996.	in Hooghly –Bhagirathi River System. (Yes / No)			
		<ul> <li>1.4. Length of the river where River/Canal Bank Protection/anti erosion works are undertaken in the original jurisdiction of Farakka Barrage<sup>3</sup> (in meters)</li> <li>1.5. Automation of Gate operating system of Farakka Barrage (Percentage progress)</li> </ul>	360 0% <sup>4</sup>		1.2. 2500 cusecs of water supplied to the NTPC Thermal Power Plant from Feeder Canal (Yes / No)	Yes		

<sup>&</sup>lt;sup>3</sup> This is proposed length of work. However, actual length will be decided with the approval of 116<sup>th</sup> TAC of FBP later <sup>4</sup> As per recommendation of TAC-FBP, it has been decided that the replacement of all old gates shall be completed first and then automation work may be taken up by FBP

FINANCIAL OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22				
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22		
175.00	1. Infrastructure Augmentation for collection of necessary data points under Water Resources Information System.	<ul> <li>1.1. Hydro-meteorological data collection – Cumulative no. of hydro-meteorological observation sites where R&amp;M has been done</li> <li>1.2. Collection of water quality data - Cumulative no. of Water Quality Monitoring Sites where R&amp;M has been done</li> <li>1.3. Collection of water quality data - Cumulative no. of Water Quality labs where R&amp;M has been done</li> <li>1.4. Cumulative no. of sites and states for which coastal management information system operationalized</li> <li>1.5. Cummulative number of reservoirs monitored for live (real time) storage</li> </ul>	1753 658 25 8 128	1. Increased coverage of WRIS	1.1. No. of downloads of the data generated from the web portal.	Targets not amenabl e.		
	2. Increase in coverage area and lead time	2.1. Flood Forecasting using rainfall based hydrodynamic flood forecasting models-	328	2. Minimizing loss of life and property due to floods	2.1. No. of forecasts generated from 328 forecasting stations for timely evacuation of people, livestock	8,000 <sup>5</sup>		

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

<sup>&</sup>lt;sup>5</sup> However, the exact number of forecasts would depend upon the monsoon conditions in 2021-22

FINANCIAL OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	under flood forecasting activity	Cumulative no. of Flood Forecasting stations where R&M has been done					
		2.2. Flood Forecasting using rainfall based hydrodynamic flood forecasting models- Cumulative no. of Flood Forecasting stations added	0				
		2.3. Real-time data acquisition system installation – Cumulative no. of stations where R&M has been done	968	3. Aquisition of data on real time basis	3.1. Acquisition of data from all 1093 Hydrological Observation Sites on real time basis (Done/Not Done)	Done	
		2.4. Real-time data acquisition system installation – Cumulative no. of additional stations where installations will be done	125	4. Predict extent of submergence at various levels of floods.	4.1. Area of the river basin where inundation forecasts services are provided. (in km2)	50,000	
		2.5. Cumulative no. of stations enabled with Inundation forecast using CWC- Google Collaboration.	60				

FINANCIAL OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>				OUTCOMES 2021-22			
2021-22		Output	Indicators	Targets 2021-22		Outcome	Indicators	Targets 2021-22	
290.00	1.	Preparation of aquifer maps and management plans to ensure sustainability of ground water resources.	1.1. Total area (in lakh sq. km) for which aquifer map and management plan has been prepared	4.5	1.	Improved data/information and knowledge base for sustainable management of ground water resources.	1.1.No. of block assessment units for which the report is shared with the states.	Targets not amenable.	
	2.	Status of ground water level and quality and assessment	2.1. Frequency of monitoring of ground water levels through the monitoring network of CGWB (No. of times to be done in a year and the information is updated and shared with state Government departments and shared through India-WRIS web portal.)	4	2.	Sharing groundwater monitoring reports containing updated information of ground water scenario in the country with state departments.	2.1. No. of downloads of the reports/maps from the various web portals.	Targets not amenable.	
			2.2. Frequency of monitoring of ground water	1			2.2. No. of states/UTs where the reports/maps	32	

## 4. Ground Water Management and Regulation<sup>6</sup> (GWM &R) - (Central Sector Scheme)

<sup>&</sup>lt;sup>6</sup> Under the proposed GWM&R Scheme for the period 2020-25, Springshed Mapping and Rejuvenation of vulnerable springs has been included under the Aquifer Mapping Component and a target of 11 Springshed has been proposed for the year 2021-22.

FINANCIAL OUTLAY (Rs. In Cr.)	(	OUTPUTS 2021-22		OUTCOMES 2021-22				
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22		
		quality through the monitoring network of CGWB (No. of times to be done in a year)			generated have been disseminated.			
		2.3. Dynamic Ground Water Resource Assessment of the country for the year 2020 <sup>7</sup>	0					
		2.4. Number of outreach programmes conducted for dissemination of data/information and knowledge base for sustainable management of ground water and sensitisation of stakeholders.	400		2.3. No. of people trained/reached out to in awareness campaigns.	Targets not amenable.		

<sup>&</sup>lt;sup>7</sup> This is conducted every three years, the last assessment was done in FY 20-21.

FINANCIAL OUTLAY (Rs. In Cr.)	OU	TPUTS 2021-22		OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	3. Regulation of ground water for sustainable management of ground water resources.	3.1. Number of NOC issued.	Targets not amenable.	3. Judicious use of ground water resources.	3.1. Number of annual compliance reports submitted. <sup>8</sup>	Targets not amenable.	

#### 5. National Hydrology Project (NHP) - (Central Sector Scheme)

FINANCIA L OUTLAY (Rs. In Cr.)		OUTPUTS 2021-22		OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
200.00	a) National W	ater 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.	2,000	<ol> <li>Making available enhanced Water Resources information for better water resources planning and informed</li> </ol>	1.1. User base of online database – No. of users including professionals, researchers, decision makers.	Targets not amenable <sup>9</sup>	

<sup>&</sup>lt;sup>8</sup> 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. <sup>9</sup> Target for the no. of users cannot be predicted.

FINANCIA L OUTLAY (Rs. In Cr.)			<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22			
2021-22	Output		Indicators	Targets 2021-22		Outcome	Indicators	Targets 2021-22
			1.2. No. of existing modules of India WRIS to be enhanced.		decision making for exteme events.			
	2.	Centralize Hydro-met data base	2.1. No. of realtime hydromet systems installed.	3,000	2.	Strengthing of Network	2.1. No of State with strengthened hydromet monitoring systems	5 <sup>10</sup>
	3.	Extended Hydrological Prerdiction system development in selected basins.	3.1. No. of basins for which the basic framework has been completed.	3	3.	Developing/Improv ing short term and longterm stream forecast at basin scale to optimise reservois operation.	3.1. No. of reservoirs with optimised reservoirs operations within the basins.	0 <sup>11</sup>
	4.	Development of tool for sediment transport modelling and management of sediment in selected basins of the country.	4.1. No. of basins for which mathematical model has been developed.	2	4.	Improved understanding of the river morphology and the extent of sediment erosion by the rivers and siltation.	4.1. No. of policies formed/implemente d for silt management in a collaborative manner by Central and State Organisations.	0 <sup>12</sup>

 <sup>&</sup>lt;sup>10</sup> RTDAS Contracts for 5 more States shall be awarded (1000 stations)
 <sup>11</sup> The use of the tool on completion in 2023 would be the responsibility of the basin states.
 <sup>12</sup> Since the development of tool would be completed post 2021-22, policy formulation would only be possible in 2023-24 after detailed review and consultations with the various stakeholders.

FINANCIA L OUTLAY (Rs. In Cr.)		OUTPUTS 2021-22				OUTCOMES 2021-22			
2021-22		Output	Indicators	Targets 2021-22		Outcome	Indicators	Targets 2021-22	
	5.	Institutional Strengthing	5.1. No of additional Data Centre set up	6	5.	Enhanced capacity building for WaterResources	5.1. No. of Water Resources Professionals	300	
			5.2. No of Trainings conducted	30		Professional	trained		
	6.	Setting up of indundation Forecast	6.1. No. of basins to be covered for Indundation mapping based upon flood	2	6.	Enhanced responsiveness to flood forecasting <sup>13</sup>	6.1. Enhancement in lead time for flood forecasting. (in hours) <sup>14</sup>	72	
			forecast with additional lead time.				6.2. River basin area under monitoring for floods. (in lakh sq. km)	8	

<sup>&</sup>lt;sup>13</sup> Apart from water levels in the rivers, on completion of the sytem 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 <sup>14</sup> The baseline is - upto 24 hours.

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>				OUTCOMES 2021-22	
2021-22	Output	Indicators	Targets 2021-22	Out	come	Indicators	Targets 2021-22
20.00	1. Construction and Renovation of buildings	1.1. No. of new buildings constructed for CWC.	2	enviror comple works.	Savings on	1.1. Increased satisfaction level of employees.	Target not amenable.
		1.2 No. of buildings renovated for CWC.	2	monthl comple works.	y rent on etion of	1.2. Savings made on rent upon construction of	Target not amenable.
		1.3 No. of new buildings constructed for CGWB.	3	works.		office building. (Savings on payment of monthly rental based on market rates) (in Rs)	
		1.4 No. of buildings renovated for CGWB	0				
	2. Renovation of approx 12 Rooms in the Department.	2.1 No. of rooms renovated in the Department (CGO Block-11 and Shram Shakti Bhawan of the Department.)	0				
	3. Implementat ion of e- Office in all Subordinate Offices under the Department.	<ul> <li>3.1 Implementation of e- Office in all Subordinate Offices under the Department. (Processing 100% files). (Yes/No)</li> </ul>	Yes	files on	nentation of	2.1. Percentage of employees working in the Subordinate Offices using e-office application.	100%

### 6. Infrastructure Develpoment (ID) - (Central Sector Scheme)

FINANCIA L OUTLAY (Rs. In Cr.)	OUTPUTS 2021-22			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	4. Implementat ion of e- HRMS in six organization s under the Department.	4.1 No. of organisations where e-HRMS has been implemented.	Targets not amenable.	3. Better monitoring of Human Resources.	3.1. Percentage of employees working in organisations enrolled under e-HRMS using online APAR, Online Leave Management System, Digitized service books etc.	Target not amenable.	

### 7. Atal Bhujal Yojana - (Central Sector Scheme)

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
330.00	1. Improved ground water monitoring	1.1. Additional no. of monitoring wells.	2,000	1. Improved awareness about the local ground water	1.1. Number of Gram panchayats having communities with	1670	
	and dissemination of data	1.2. No. of block-wise ground water reports published.	100	scenario among the community	improved awareness		

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22				
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22		
	2. Community led Water Security Plans (Prepared / Updated	2.1. No. of Water Security Plans finalized and approved	1670	2. Comprehensive plans to ensure sustainable development of available water.	2.1. Number of Gram Panchayats with approved water security plans	1670		
	3. Public financing of Water Security Plans through convergence of ongoing/ new schemes	3.1. No. of interventions (as per approved water security plan) implemented through convergence.	615	<ol> <li>Optimal use of available funds for facilitating sustainable water management</li> </ol>	3.1. Number of Gram Panchayats ensuring convergence of activities under ongoing schemes	615		
	4. Drip/sprinkler	4.1. Increase in area under Drip / Sprinkler Irrigation.	Targets not amenable.	4. Improved water us efficiency in agriculture	e $4.1.$ Volume of water conserved $\frac{15}{15}$ .	Targets not amenable		
					4.2. No. of farmers using drip/sprinkler irrigation.	5,000		
	5. Crop diversificatio n	5.1. Increase in area with diversified crops (in ha.)	Targets not amenable.		4.3. No. of farmers undertaking crop diversification.	5,000		

 $<sup>\</sup>frac{1}{15}$  In the absence of data capture mechanisms, numbers from emperical calculations to be used.

FINANCIA L OUTLAY (Rs. In Cr.)	OUTPUTS 2021-22			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	6. Blocks with feeder separation for agricultural purposes.	6.1. No. of blocks with 100% separation of power feeders for agricultural and non- agricultural purposes.	5		4.4. No. of blocks with 100% separation of accounting of power consumption for agricultural and non- agricultural purposes.	5	

#### 8. Research & Development and National Water Mission (NWM) - (Central Sector Scheme)

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22		
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
29.50 (R & D :	A) Research & ]	Development (R & D):				
21.50 NWM : 8.00)	.501.Increasing1./M :research &00)developme	1.1. No. of research/technical reports published <sup>17</sup>	195	1. Improved indigenously developed	1.1. No. of people trained by Capacity building sessions and at the additional facilities	Target not amenable.
	nt base	1.2. No. of research papers published	305	technology use, increased officer	and research infrastructure	

<sup>&</sup>lt;sup>16</sup> Projections are based on state-level plans, this may vary dynamically during implementation. <sup>17</sup> 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.

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
		1.3. Trainings and workshops conducted	40	capacities and wider research base	created.		
				utilization	1.2. No. of high impact (based on citiations) technical report & research.	Target not amenable.	
	B) National Wa	ter Mission (NWM)					
	1. Preparation of State Specific Action Plans for Water Sector	1.1.No. of State Specific Action Plans prepared	16	1. Preparation of State Water Budget	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.	10	
		1.2. No. of States/ UTs from which first Stage (draft status) Report has been received	14	-			
		1.3. No. of states and UTs which have prepared and submitted the final report on SSAP.	10				
	2. Human Resource Developme nt and	2.1. No. of Workshops/ Webinars/ seminars/ talks etc. conducted	80	2. Capacity building of various stakeholders for water conservation/water	2.1.No. of beneficiaries who attended the Workshops/ Webinars/ seminars/ talks etc. and benefited.	5,00,000	

FINANCIA L OUTLAY (Rs. In Cr.)		OUTPUTS 2021-22		OUTCOMES 2021-22				
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22		
	Capacity Building	2.2. No. of Human Resource Development and Capacity Building Training Programmes conducted	16	use efficiency.	2.2 No. of people trained.	1,000		
	3. Studies on Water Use Efficiency (WUE) and recommen dations 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.	14	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.	5		
	4. Studies on Water Use Efficiency (WUE) and recommen dations to increase WUE in Industrial Sector.	4.1. No. final report prepared and submitted on benchmarkingstudy 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/Organ isations where recommendations, provided in the report on baseline study, have been forwarded for implementation.	12		

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
100.00	1. Sewerage system to prevent untreated sewage entering the rivers	1.1. Length of sewer network laid (in km)	100	<ol> <li>Prevention of raw sewage from entering the water bodies, land, etc, and thus reducing water pollution and environmental degradation</li> </ol>	<ul><li>1.1. Volume of raw sewage intercepted/channelized and diverted to STP for treatment (mld)</li><li>2.1. Volume of sewage inflow to</li></ul>	Target not amenable.	
		1.2. Sewage treatment capacity created (mld)	155	2. Reduction in organic pollution load	2.1. Volume of sewage inflow to STPs and the treatment efficiency (kg/day)	23250	
		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. Communic ations 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	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		rivers.		

## 9. National River Conservation Plan (other than Ganga basin) - (Centrally Sponsored Scheme)

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22					
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22				
199.00	a) Investigation of Water Resources Development Schemes – National Water Development Agency (NWDA):									
	1. Priority links / Detaile d Project Reports (DPRs) comple tion	<ul> <li>1.1. Ken-Betwa link project post DPR activities, formation of special purpose vehicleand preparatory work for construction.<sup>18</sup> (Done/NotDone)</li> </ul>	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. <sup>19</sup>	<ul> <li>1.1. Ken-Betwa Phase-I&amp;II Project (On Completion)</li> <li>CCA( in ha.) MP: 653368 UP: 251064 Total: 904432</li> <li>Drinking Water Supply Total :228.9MCM for 62.94 Lakh population of UP and MP</li> <li>Power Generation : Hydro: 103MW Solar: 27MW Total power generation: 130 MW</li> </ul>	Target not amenable. <sup>20</sup>				
		1.2. Damanganga-Pinjal link project: Obtaining clearances, efforts to build consensus among party States for signing of MoU (Done/Not Done)	Done		<ul><li>1.2. Damanganga-Pinjal link (On Completion)</li><li>Drinking Water Supply - 579 MCM for Mumbai City (excluding Pinjal component)</li></ul>	Target not amenable.				

#### **10. River Basin Management (RBM) - (Central Sector Scheme)**

<sup>&</sup>lt;sup>18</sup> 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. <sup>19</sup> 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. <sup>20</sup> On implementation, the project will provide the benefits as furnished in outcome indicators.

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22				
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22		
					Power Generation - 5 MW			
		1.3. Par-Tapi-Narmada link project: Completion of CEIA studies and obtaining clearances, efforts to build consensus among party States for signing of MoU (Not Done / Done)	Done		<ul> <li>1.3. Par-Tapi-Narmada Link Project (On Completion)</li> <li>Annual Irrigation: 2.32 Lakh ha in Drought Prone Areas in Gujarat</li> <li>Drinking Water Supply :76 MCM including Tribal Area</li> <li>Power Generation :21 MW</li> </ul>	Target not amenable.		
		1.4. Godavari- Cauvery link project: Consensus building amongst states for its implementation and initiating process for obtaining clearances etc (Not Done / Done)	Done		Power Generation :21 MW         1.4. Godavari-Cauvery (alternate) link         project         Benefits on completion         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		<ul> <li>1.5. Kosi - Mechi intra-state link project Benefits on completion</li> <li>Annual Irrigation: 214812 ha</li> <li>Hydro Power: Nil</li> <li>Drinking water: Nil</li> </ul>	Target not amenable.		
					Industrial water:Nil			

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22		
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
		1.6. Wainganga-Nalganga Link – Continued revision of DPR as per comments of Maharashtra continued. (Not Done/Done)	Done		<ul> <li>1.6. Wainganga-Nalganga Link(On Completion)</li> <li>CCA:3.71 Lakh ha.</li> <li>Drinking and Industrial Water Supply :429 MCM</li> </ul>	Target not amenable.
	2. Preparati on of Detailed Project Reports	2.1. Bedti Varada link project continued - Preparation and finalisation of DPR including alternates suggested by Govt. of Karnataka and circulation to states. (Done/Not Done)	Done		<ul> <li>2.1. Bedti Varada link project Benefits on completion (As per PFR)</li> <li>Irrigation: 60,200 ha</li> <li>Power Generation: 3.6MW</li> </ul>	Target not amenable.
		2.2. Damanganga (Ekdare) - Godavari intra-state link project - Preparation and finalisation of DPR. (Not Done/Done)	Done		2.2. Damanganga (Ekdare)-Godavari Valley link Project (On Completion) CCA: 16505 ha. Domestic Water Supply: 22 MCM	Target not amenable.
		2.3. Damanganga-Vaitarana- Godavari intra-state link project - Preparation and finalisation of DPR. (Not Done/Done)	Done		2.3. Damanganga-Vaitarna-Godavari Valley link Project (On Completion) CCA: 15484 ha. Drinking and Industrial Water Supply: 40MCM	Target not amenable.

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22		
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
		2.4. Cauvery - Vaigai - Gundar link project: Post DPR activities in consultation with State (Not Done / Done)	Done		<ul> <li>2.4. Cauvery - Vaigai - Gundar link project Benefits on completion (As per DPR)</li> <li>Annual Irrigation: 4.48 lakh ha</li> <li>Domestic &amp; Industrial water supply:218 MCM</li> </ul>	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		2.5. Mahanadi (Barmul)-Godavari (Dowlaiswaram) link Benefits on completion (As per FR) Annual Irrigation: 4.43 lakh ha Domestic & Industrial water supply:700 MCM	Target not amenable.
		<ul> <li>2.6. Manas-Sankosh-Teesta- Ganga link project: i) Attending the comments/views of party States and finalisation of FR. ii)Preparation of DPR will be taken up (iii)Negotiations with Govt of Bhutan for arriving consensus (Done/ Not Done)</li> </ul>	Done		<ul> <li>2.6 Manas-Sankosh- Teesta-Ganga Link (On Completion)</li> <li>CCA - 3.41 lakh ha. in Assam, West Bengal &amp; Bihar</li> <li>Quantity to be delivered at tail end: 31224 MCM</li> </ul>	Target not amenable.

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22		
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
		2.7. Parbati-Kuno-Sind link project (integration of PKC with ERCP) Preparation of DPR (Not Done/Done)	Done		<ul> <li>2.7 Parbati-Kuno-Sind link project (On completion) Annual Irrigation – 1.67 lakh ha.</li> <li>Domestic &amp; Industrial Water Supply – 691 MCM</li> </ul>	Target not amenable.
	3. Feasibilit y Reports (FRs)	3.1 Sone dam-Southern Tributaries of Ganga (STG) link project - Completion of FR and its circulation to states (Not Done / Done)	Done		<ul> <li>3.1. Sone dam-Southern Tributaries of Ganga (STG) link project Benefits on completion (As per PFR) Irrigation: 3,07,000 ha Power Generation: 95 MW Domestic &amp; Industrial water supply: 360 MCM</li> </ul>	Target not amenable.
		3.2 Kosi-Ghaghra link project - Completion of FR and its circulation to states (Not Done / Done)	Done		<ul> <li>3.2. Kosi-Ghaghra link Benefits on completion (As per PFR) Irrigation: 3.07 lakh ha (including 1.74 lakh ha in Nepal) Domestic &amp; Industrial water supply : 48 MCM Irrigation water use: 7291 MCM</li> </ul>	Target not amenable.

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
		3.3 Gandak- Ganga link project - Completion of FR and its circulation to states (Not Done / Done)	Done		<ul> <li>3.3 Gandak-Ganga link project Benefits on completion (As per PFR) Irrigation: 40.40 lakh ha (including 2.41 lakh ha in Nepal) Power Generation: - 3245 MW Domestic &amp; Industrial water supply: 700 MCM</li> </ul>	Target not amenable.	
	b) Invest	igation of Water Resources Develo	pment Schen	nes – Central Water	Commission:		
	<ol> <li>DPR preparati on of Projects after detailed Survey and Investiga tions and studies on hydrologi cal, Irriigatio n Planning environm</li> </ol>	<ul> <li>1.1. Investigation works for preparation of DPRs for the Katakhal Irrigation Project, Assam - a.) Hydrological Observations</li> <li>b.) Diamond Core Drilling and Geotechnical Investigation works</li> <li>c.) Construction Material Survey</li> <li>d.) Collection of soil samples and tests in project areas/ locations</li> <li>e.) Design and Consultancy services</li> <li>f.) Seismological Studies</li> <li>g.) Foundation and Soil Survey</li> </ul>	Done	<ol> <li>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</li> </ol>	<ul> <li>1.1. Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Katakhal Irrigation project, Assam</li> <li>CCA envisaged – 22,400 Ha</li> </ul>	Target not amenable.	

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22		
	ent aspects, cropping pattern Crop water requirem ent etc. Ongoing Projects: (1.1) Katakhal	<ul> <li>h.) Environmental and Ecological Study</li> <li>i.) Property Survey</li> <li>j.) Preparation of cost estimate for various project components</li> <li>k.) Benefit and financial aspects, Preparation of Maps &amp; reports</li> <li>l.) Preparation and checking for DPR (Not Done/Done)</li> </ul>		execution of project.				
	Irrigation Project (1.2) Tlawng HEP (1.3) Barinium HEP,J& K	<ul> <li>1.2. Completion of preparation of DPR of Tlawng Hydro- electric Project, Mizoram</li> <li>a) Drifting work on Left and Right abutment of Project.</li> <li>b) Core-logging &amp; other investigation work by GSI.</li> <li>c)Completion of DPR (Not Done / Done)</li> </ul>	Done		<ul> <li>1.2. Preparation of bankable Detailed Project Reports (DPR) to be used for execution of Tlawng HEP, Mizoram Power Generation Capacity envisaged – 54MW</li> </ul>	Target not amenable.		

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
		<ul> <li>1.3 Investigation works for preparation of DPRs for the Barinium HEP, J&amp;K a.) Topographical Survey Using UAV</li> <li>b.) Exploratory drilling for Dam Area, Power House &amp; Water conductor tunnels</li> <li>c.) Drifting in Dam Abutments &amp; Power house</li> <li>d.) Construction Material Survey</li> <li>e.) Power Potential Studies</li> <li>f.) Detailed geological mapping</li> <li>g.) Preparation of Design Memorandums and Design Drawings based on Survey &amp;Investigations.</li> <li>h.) Quantity Estimation and Preparation of Cost Estimate.</li> <li>i.) Writing of various Chapters and volumes of DPR. (Not Done / Done)</li> </ul>	Done		<ul> <li>1.3 Field Survey &amp; Investigations and completion of writing of various chapters of DPR of Barinium HEP, J&amp;K.</li> <li>Power Generation Capacity envisaged – 240 (2 x 120) MW</li> </ul>	Target not amenable.	

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	2.Seismologi cal observations in Sankosh Basin	<ul> <li>2.1 Continuation of Seismological observations <ul> <li>a.) Obtaining Royal</li> <li>Government of Bhutan's</li> <li>concurrence for installation of</li> <li>new Seismological equipment</li> <li>at 4 locations in Bhutan and</li> <li>installation of new equipment</li> <li>in place of defunct</li> <li>equipment.</li> <li>b.) Establishment of one new</li> <li>Seismological station in India</li> <li>and installation of new</li> <li>equipment in place of defunct</li> <li>instruments at 1</li> <li>seismological station. (Not</li> <li>Done / Done)</li> </ul> </li> </ul>	Done	2. Seismological observations to be made in Sankosh Basin. Optimum design of Sankosh Multipurpose project.	2.1 Continuation of Seismological Observations at 6 locations (4 in Bhutan and 2 in India) in the vicinity of Sankosh Multipurpose Project (Not Done / Done)	Done	
	c) Brahn	naputra Board:	l			l	
	1. Completi on of ongoing / new anti- erosion, drainage	1.1.No. of locations where bank protection work shall be executed	6	1. Increased protection against flood &erosion, reduced drainage congestion and	<ul><li>1.1. Area of land secured from floods and erosion of river Umngi in Balat Village in Meghalaya. (in ha)</li></ul>	300	

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	develop ment works			reclamation of agricultural land a better infrastructure /environment for working, Improve indigenious water	1.2. No. of people of Balat Village in Meghalaya secured from floods and erosion of river Umngi.	3250	
				management practices and improvement of	1.3. Protection of no. of Villages in DhollaHatighuli area in Tinsukia District of Assam	11	
				environmenta l condition of some historically	1.4. Protection of an area in DhollaHatighuli in Tinsukia District of Assam (in ha.)	2400	
				important places near river	<ul> <li>1.5. Protect large Agricultural land, SisumaraBoP at Kalair-Alga Indo- Bangla Border (IBB) Link Road and Indo-Bangla Border fencing in South SalmaraMankachar district, Assam. (Done/Not Done)</li> </ul>	Done	

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>		OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
					1.6. Area of land protected in Bhajaner Charra, Nishiganj area in Cooch Behar District, West Bengal. (in ha)	115	
					1.7. No. of beneficiaries in Bhajaner Charra, Nishiganj area in Cooch Behar District, West Bengal.	2500	
		1.2 Establishment of North East Data Water Resources DataCentre – Roadmap (Not Done/Done)	Done		1.8. Single widow facility for water resources data of NER for preparation of Schemes / Projects and scientific and research (Done/Not Done)	Not Done <sup>21</sup>	
		<ul> <li>1.3 Scientific dissemination and Improvement of Water Management Practices of indigenous people of NE - Apatani people (Not Done/Done)</li> </ul>	Done		1.9 Upgrade and popularise traditional practices of Apatani people in Zero Vally, Arunachal Pradesh (Not Done/Done)	Done	
		1.4 Development of Kamalabari Ghat at Majuli to Improve the facilities for the people of Majuli and visitors to Majuli and protect the bank from erosion due to water of river Brahmaputra (Not	Done		1.10 Kamalabari Ghat area protected from erosion due river Brahmaputra (Not Done/Done)	Done	

 $\frac{1}{2^{2}}$  As the roadmap is being prepared this year establishment is not planned to be completed.

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	<b>Targets</b> 2021-22		
		Done/Done)						
	2. Preparatio n of river basin Master Plans related to flood controls, bank	2.1.No. of Master Plans prepared/modified	6 <sup>22</sup>		<ul> <li>2.1 Total 6158 ha area in 15 villages to be covered under land protection from flood &amp; erosion. Total estimated economic benefit from land protection from flood &amp; erosion is Rs. 224.95 lakh. Total 10085ha irrigation potential will be created from the projects for which Master Plans have been prepared.</li> </ul>	0 <sup>23</sup>		
	erosion and	2.2. No. of DDSs DPR prepared/modified	1		2.2 Area de-congested in Dharmanagar district of Tripura. (in ha)	200		
	improve ment of drainage	2.3. No. of DPR for MP Project	1		2.3 Continuation of Running & Maintenance of Assets (Not Done/Done)	Done		
	as well as Irrigation Projects.	2.4. Continuation of upgradation &operation of NEHARI continued (Done/Not done)	Done		2.4 Area where drainage congestion is reduced in Barbhag area in Nalbari district of Assam on project	Target not amenable. <sup>24</sup>		
	Preparati on of DPR of Drainage	2.5. Continuation of R & M of assets created by Board (Done/Not Done)	Done		completion – 6250 ha.			
	Develop ment Schemes	2.6.% Physical progress - construction of sluice of Barbhag DDS	30%					

 <sup>&</sup>lt;sup>22</sup> Dareng, Umsohryngkew, Ganol, Umtrew, Umngi, Waikhyrwi
 <sup>23</sup> Basic data/preliminary reference for preparation of DPR for implementation of water resources projects will be available.
 <sup>24</sup> Applicable upon project completion.

FINANCIA L OUTLAY (Rs. In Cr.)	OUTPUTS 2021-22		OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
	Preparati on of DPRs of Multipur	2.7. Clearing of revised DPR and % physical progress - construction of works of sluice of Amjur DDS.	15%		2.5 Area where drainage congestion is reduced in Amjur area on project completion – 7200 ha.	Target not amenable. <sup>24</sup>
	pose projects.	2.8.% progress of construction work for development of infrastructures of Board to carry out the work of protection of Majuli Island.	30%			

## 11. Human Resources Development and Capacity Building (HRD&CB) - (Central Sector Scheme)

FINANCIA L OUTLAY (Rs. In Cr.)		<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22	
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
29.50	a) NERIV	VALM, Tezpur:				
	1. Capacity building, awareness activities and support	1.1. No. of national trainings conducted	55	<ol> <li>Increased awareness, upgradation of knowledge/skills of water resources professionals</li> </ol>	1.1. No. of personnel trained in ground water management	60
	to research &	1.2. No. of international trainings conducted	1			
	developme nt	1.3. No. of Seminars/Workshops/	6		1.2. No. of Publications	6

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
		Conference/Special Days organized					
		1.4. No. of outreach activities conducted like Media campaign covering advertisements, outdoor publicity, electronic media campaign, participation in exhibitions etc.	5		1.3. No. of personnel trained in sustainable water management	1950	
		1.5. No. of special campaign organized for tribal areas/children	6		1.4. No. of tribal people covered through awareness generation activities on methods/best practices for sustainable water	600	
		1.6. No. of students and officers certified in the M. Tech in Water Resources Management course under affiliation of ASTU.	9		management.		
	b) Central	Water Commission and Natio	nal Water Aca	demy (NWA), Pune:			
	1. Capacity building, awareness	1.1. No. of national trainings conducted-NWA	32	1. Increased awareness, upgradation of knowledge/skills of	1.1. No. of personnel trained in sustainable water management in NWA trainings.	800	
	activities and support to research	1.2. No. of national trainings conducted-CWC	10	water resources professionals	1.2. No. of personnel trained in sustainable water management in CWC trainings.	100	

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	& developme nt	1.3. No. of international trainings conducted	1		1.3. No. of tribal population covered through awareness generation activities on methods/best practices for sustainable water management	Targets not amenable	
		1.4. Personweeks of Training conducted	1750		1.4. No. of CWC Officers deputed in Workshop/Seminar/ Conferences organised by other National and International agencies	80	
		1.5. No. of special campaign organized for tribal areas/children	1		1.5. No. of deputed officers successfully completing and obtaining PG Diploma	4	
		1.6. No. of Workshop/Seminar/ Conferences organized by other National and International agencies where CWC officers participate for capacity building.	20		certificate through the one- year course at IIT, Roorkee.		
		1.7. No. of officers deputed for one-year PG Diploma course at IIT, Roorkee	4				

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	<ol> <li>Capacity building, awareness activities</li> </ol>	1.1. No. of national trainings conducted	130 <sup>25</sup>	upgradation of knowledge/skills of water resources	1.1. No. of personnel trained in sustainable ground water management through national and international trainings.	7,600 <sup>26</sup>	
	and support to research	1.2. No. of international trainings conducted	0		1.2. No. of publications	5	
	& developme nt	1.3. No. of reports generated from R&D studies in Ground Water Sector.	2				
	d) Trainin	g of DoWR, RD & GR:					
	1. Increased awareness, upgradatio n of knowledge and skills of water resources professiona ls as well as non- technical	1.1. No. of training programmes conducted. <sup>27</sup>	Targets not amenable.	1. Increased awareness, upgradation of knowledge and skills of water resources professionals as well as (non-technical) in the field of water resources planning, development and management, thereby contributing in the sustainable	1.1. No. of officers/officials/personnel trained in this area.	200	

<sup>&</sup>lt;sup>25</sup> Tier-I : 60, Tier-II : 20, Tier-III: 50, Total : 130 Proposed <sup>26</sup> Tier-I :1200, Tier-II : 400, Tier-III: 6000, Total :7600 Proposed

<sup>&</sup>lt;sup>27</sup> Organizing orientation training for officials who are newly posted. (ii) Conducting in-house/ on the job trainings at workplace.(iii) Deputing officials/ officers for thematic trainings (iv) Mandatory Training Programme at various level officers of CSS, CSSS, Central Staffing Scheme at ISTM and other Cadre Institutes (v) Deputing officers/ officials on Short term training like leadership development, Stress Management, Ethics and values at ASCI, IIM (C) and IIM, Ahmedabad etc. (vi) Advanced computer courses, e-office, e-Governance. Training on Water Sector at NIH, Roorkee, NWA, Pune and NERIWALM, Tejpur.

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	staff in the field of water resources planning, developme nt and manageme nt, thereby contributin g in the sustainable developme nt and conservatio n of water resources in India. e) IEC:			development and conservation of water resources in India.			
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	1. "Mass Awareness on the	1.1. No. of Workshops/Seminars conducted	7	1. Increased awareness, upgradation of	1.1. No. of beneficiaries.	Target not amenable.	
	issues related to Water Conservati on on pan- India	1.2. No. of advertisements released in print media	3	knowledge and skills in the field of water resources and conservation.			
		1.3. No. of Seminar/Conferencs/Spe cial Days organised	5				

FINANCIA L OUTLAY (Rs. In Cr.)	<b>OUTPUTS 2021-22</b>			OUTCOMES 2021-22			
2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
	basis"	1.4. No. of advertisements released in print media	5				
		1.5. No. of Radio Jingles/ Video Spots/TVCs etc. produced	5				
		1.6. No. of Exhibition/ Fair and competitions organized	5				
		1.7. No. of Events/Programmes organized for children.	2				
		1.8. No. of outdoor publicity activities conducted	6				
		1.9. No. of awareness activities conducted in tribal areas.	2				

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