
YEAR END REVIEW

2020



Ministry of Jal Shakti

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Year End Review: Department of Water Resources, River Development & Ganga
Rejuvenation, Ministry of Jal Shakti

National Mission for Clean Ganga completes 22 projects & sanctions 17 new projects
amounting to Rs. 557.83 crores

Namami Gange included under Prime Minister's Awards for Excellence for Public
Administration Scheme for recognizing efforts of district level officials

Dam Rehabilitation and Improvement Project (DRIP) Phase II and Phase III approved with
Budget Outlay of Rs. 10, 211 Cr.

National Water Mission launched special campaign – “Catch the Rain” for improving water
conservation across the nation

A. NATIONAL MISSION FOR CLEAN GANGA:

The NMCG has completed 22 projects and sanctioned 17 new projects related to Sewerage Infrastructure, Ghat and Crematoria, Pollution Abatement, Afforestation, Biodiversity etc. in 2020 at a total cost of Rs. 557.83 crores. Prime Minister Shri Narendra Modi inaugurated the 43 MLD Beur STP (Rs.78 crores) and 37 MLD Karmalichak STP (Rs.73 crores) in Patna on 15th September, 2020. Apart from this, the Prime Minister also laid the foundation stone for River Front Development Scheme under Namami Gange in Muzaffarpur. Three Ghats, namely, East Akhara Ghat, Sidhi Ghat and Chandwara Ghat of Muzaffarpur city will be developed under this scheme.

Prime Minister also dedicated to the nation various STP projects of Uttarakhand on 29th September, 2020 namely 68 MLD STP at Jagjeetpur, Haridwar; Upgradation of 27 MLD STP at Jagjeetpur, Haridwar & 18 MLD STP at Sarai, Haridwar; 26 MLD STP at Lakkadghat, Rishikesh; 7.5 MLD STP at Chandreshwar Nagar and 5 MLD at Chorpani in Muni Ki Reti & 1 MLD and 0.01 MLD STP at Badrinath. All major projects have been completed in Uttarakhand (120.5 MLD capacity created in Haridwar, Rishikesh and Muni-ki-Reti). Infamous Chandreshwar Nagar Naala at Muni-ki-Reti tapped and it no longer drains into the Ganga.

For the first time, Namami Gange has been included under the Prime Minister's Awards for Excellence for Public Administration Scheme for recognizing the efforts of district level officials. Under this award category, one award shall be given to a district out of the 57 notified DGCs under the Mission. NMCG has released/achieved an amount of Rs. 1,452.40 crores from January, 2020 to November, 2020 for implementation of infrastructure projects, beautifications of Ghats, forestry interventions etc. to the State Programme Management Groups, Central Public Sector Undertakings and State Forest Departments.

The Second National Ganga River Basin Project (Ganga – II) was approved by the World Bank Board on 25th June 2020 for US\$ 400 million (Rs. 3023.10 crores). The Department of Economic Affairs, Government of India and the World Bank signed the loan agreement on July 7, 2020. The Loan would be for a period of 5 years up to December 2026. Ganga Quest 2020, a competitive knowledge-building platform to assess the knowledge and awareness of the youth, school children and the general public towards issues related with environment, river conservation and bio-diversity etc. was organized from 22nd April 2020 (World Earth Day). The contest ended on 30th May, 2020 and the winners were announced on 5th June, 2020 (World Environment Day). A Digital Initiative, the Quiz received an overwhelming response with participation of more than 11.5 lakh individuals from all over country and NRIs and others from abroad, in spite of the lockdown due to the COVID-19 pandemic. The bilingual nature of the quiz helped it reach out to students in remote areas, where people are more comfortable in Hindi.

Ganga Utsav 2020, a three days cultural and educational festival, was organized by NMCG from 2nd to 4th November, 2020 to celebrate the glory of holy river Ganga. This Utsav included variety of events including storytelling, folklores, dialogues with eminent personalities, quizzes, displaying traditional art forms, dance & music performance by renowned artists, photo galleries, exhibitions and much more.

Organic farming has been taken up for more than 50,000 hectares of land in 7 districts in Uttarakhand and on 35,780 hectare land area in Uttar Pradesh in 11 districts. 13 districts along Ganga in Bihar have also embarked upon organic farming. On 13th March, 2020, Flag-In Ganga Ceremony was held for the Ganga Aamantran Abhiyan. The 34 days long river rafting expedition from Devprayag to Gangasagar is the biggest social outreach program through adventure sports for rejuvenation of Ganga connecting with lakhs of people in route.

A MoU was signed between NMCG, Indorama Charitable Trust and SMCG-Uttarakhand on 24th February 2020, an important CSR initiative under which Indorama Charitable trust would be investing about 26 crores for construction, renovation of bathing ghats and crematoria with all the basic public amenities in order to provide the devotees a fulfilling experience and Ganga Darshan at Gangotri and Badrinath.

B. Pradhan Mantri Krishi Sinchai Yojana (PMKSY)-Accelerated Irrigation Benefit Programme (AIBP):

The Government of India on 27.7.2016 approved funding of the 99 prioritized irrigation projects (and 7 phases) with an estimated balance cost of Rs. 77,595 crore (Central share- Rs. 31,342 crore; State share- Rs. 46,253 crore) for completion in phases. The works include both the AIBP and CAD works. Funding arrangement for both Central Assistance (CA) and State Share made through NABARD under Long Term Irrigation Fund (LTIF). Targeted Irrigation Potential to be created under the scheme is 34.63 Lakh ha. An expenditure of Rs. 46,702 crore has been reported to be incurred by the concerned State Governments on these projects since 2016-17.

The Financial Progress under PMKSY-AIBP is as follows:

(Rs. in crore)

Funds Released	2016-17 to 2019-20	2020-21 (so far)	Total	Funds Released in 2020
Central Assistance	11,489	1,083	12,572	1,083
State Share	22,710	1,053	23,763	1,736
Total	34,199	2,136	36,335	2,819

Physical Progress: Against the target of 34.63 Lakh ha., Irrigation Potential of about 21.33 Lakh ha. has been created through AIBP works of the prioritized projects during 2016-17 to 2019-20. The potential created during 2020-21 shall be available only after the end of cropping season.

Project Completed under PMKSY-AIBP: AIBP works of 44 prioritized projects out of identified 99 projects (and 7 phases) were reported to be completed till date. Out of this, 10 projects have been reported to be completed during 2020.

A slew of Innovative measures have been taken to improve implementation and maximize benefits, such as:

- The arrangement of funds for Central share/Assistance (CA) made through NABARD as per year-wise requirements which would be paid back in 15 years' time. Further, the State Governments may also borrow funds from NABARD for the State Share, if required.
- In respect of State Share, interest subvention shall be provided by the Central Government so that overall interest rate for State Share comes to about 6% so as to make it attractive for the States and encourage them to raise requisite State share for early completion of projects.
- The progress of the projects in physical as well as financial terms is monitored through the field units of Central Water Commission. Third party monitoring through PMU-PMKSY is also being carried out.
- Online Management Information System (MIS) has been developed for monitoring of the projects. A nodal officer for each of the 99 priority projects has been identified who updates the physical and financial progress of the project regularly in the MIS.

- GIS based Application has been developed for geo-tagging of project components. Remote Sensing Techniques have been used for digitization of the canal network of the projects. Further, the Cropped Area estimation in the command of 99 priority projects is being carried out annually through remote sensing.
- To resolve the issue of Land Acquisition (LA) and increase water conveyance efficiency, use of Underground Pipeline (UGPL) has been actively promoted. Guidelines for Planning and Design of Piped Irrigation Network were released by this Ministry in July'2017. By adopting UGPL, LA in 6200 ha. and 4920 ha. has been avoided by the States of Odisha and Maharashtra respectively. Cost saving thereof is Rs. 1500 crore approx.
- Pari-passu implementation of Command area development works in the commands of these projects is envisaged to ensure that the Irrigation Potential Created could be utilized by the farmers. New Guidelines bringing focus on Participatory Irrigation Management (PIM) have been brought out. Further, transfer of control and management of irrigation system to the Water Users' Association (WUA) has been made necessary condition for the acceptance of CADWM completion.

Special Package for Maharashtra: A Special Package approved on 18.07.2018 which provides Central Assistance to complete 83 Surface Minor Irrigation (SMI) projects and 8 Major / Medium Irrigation Projects in drought prone districts in Vidarbha and Marathwada and rest of Maharashtra in phases up to 2023-24. The overall balance cost of the said projects as on 1.4.2018 is estimated to be Rs.13651.61 crore. Total CA is estimated to be Rs. 3831.41 crore including reimbursement for expenditure during 2017-18. Balance potential of 3.77 Lakh Ha would be created on completion of these schemes. CA of Rs. 1163 crore has been released under the scheme so far out of which Rs. 363 crore has been released since January'2020. Under the scheme, 18 SMI projects have been reported to be completed by the State Government of Maharashtra so far out of which 9 projects have been reported to be completed since January'2020. Ultimate Irrigation Potential of these 18 projects is 11,693 ha. Overall irrigation potential of 86,160 ha. has been reported to be created through all these projects during 2018-19 and 2019-20. Further potential created during 2020-21 shall be available only after the end of cropping season.

Polavaram Irrigation Project: Polavaram Irrigation Project was declared as National Project under Section 90 of AP Reorganization Act, 2014, which came into force on 1st March 2014. The project with 2454 m of earth-cum-rockfill dam and 1128.4 m long spillway aims at irrigating 2.91 lakh ha in East Godavari, Visakhapatnam, West Godavari and Krishna districts besides several other benefits envisaged by it. Central Government is funding 100% of the remaining cost of the irrigation component of the project, as on 01.04.2014. Government of Andhra Pradesh is executing the irrigation component of the project on behalf of Government of India. The approved cost of the Project is Rs. 55,548.87 Cr (at 2017-18 price level). After declaration as National Project, a sum of Rs.8614.16 Cr. has been released for execution of Polavaram Irrigation Project so far, out of which Rs.1850 Cr has been released since January'2020. In addition, Rs. 2234 crore has been sanctioned for

release to the project during 2020-21 which shall be released by NABARD shortly. An expenditure of Rs. 17,327 crore has been incurred for the project works up to 31.03.2020.

C. Dam Rehabilitation and Improvement Project (DRIP) Phase II and Phase III:

India ranks third globally after China and USA with 5334 large dams in operation. About 411 dams are under construction. In addition, there are several thousand smaller dams. These dams are vital for ensuring the water security of the Country. The Union Cabinet approved externally aided DRIP Phase II and Phase III in its meeting held on October 29, 2020. The nineteen (19) States and three (3) Central Agencies are involved. The Budget Outlay is Rs. 10, 211 Cr. Duration of Scheme is ten (10) years, to be implemented in two phases, each of six (6) years duration with two (2) years overlap.

D. Central Water Commission:

Compendium on Sedimentation of Reservoirs in India 2020 (4th Edition) has been prepared with data of 369 reservoirs. The work of sedimentation assessment studies of 23 reservoirs through satellite remote sensing technique was initiated through Maharashtra Engineering Research Institute (MERI), Nashik in April 2019. The studies have been completed in September, 2020. CWC has also conducted Sedimentation Assessment Studies of 8 reservoirs using remote sensing technologies in-house.

These in-house studies have been conducted using Microwave data (instead of optical data). The advantage of using microwave data is that the images are not affected by cloud cover, and we get images of the reservoirs near FRL during monsoon season as well (which is relatively difficult with optical imageries as when the reservoir is full, most of the time it is monsoon season and it is cloudy). The morphological studies of 4 rivers namely Brahmaputra, Subansiri, Pagladiya and Yamuna through remote sensing technology have been completed.

The Advisory Committee of DoWR, RD & GR considers the techno-economic viability of Medium and Major Irrigation, Multipurpose and Flood Control Project proposals. During the year 2020, 16 medium/major Irrigation, Multipurpose and Flood Control Project proposals have been accepted. The monitoring of 477 glacial lakes & water bodies having size greater than 50 ha in the Indian Himalayan region using satellite remote sensing has been completed for the year 2020. This activity is carried out every year monthly from June to October.

During the year 2020, 3 new Flood Forecasting Stations (1 Level and 2 Inflow) has been added in the States of Rajasthan, Telangana and Andhra Pradesh. During the period from 1st May to 30th November 2020, 11691 flood forecasts (8243 Level and 3448 Inflow) were issued, out of which 11178 (8132 Level and 3046 Inflow) forecasts were within limit of accuracy with a percentage accuracy of 95.61%. This is the highest number of forecasts issued on record.

Daily Flood Situation Reports and Special Advisories were also issued during extreme flood situations. 757 Red and 1121 Orange Bulletins were also issued and updated on hourly and 3-hourly basis respectively. All flood information were updated in FF Website, Twitter and Facebook Pages of Flood Forecasting of CWC

Some new initiatives include 3-day advisory forecast are being increased to 7-day from 2021 using IMD Rainfall Forecast and Hydrological Data; Advance forecast for a week for 10 identified reservoirs for proper reservoir regulation and to avoid downstream flooding.

CWC Activities under National Hydrology Project (NHP)

Achievements include Finalization of Hydro-meteorological Network of various states; Finalization of specifications of Hydro-meteorological and survey equipments; Finalization of reports on various modeling software's available worldwide; Development and up gradation of old eSWIS into WIMS; Finalization of Real Time Data Acquisitions System (RTDAS) tender for all NE states except Assam; Finalization of RTDAS tender for NCA; Award of consultancy for Extended Hydrological Prediction (Multi-week forecast) for three river basins namely; Yamuna, Narmada and Cauvery; Award of consultancy for Sedimentation study in 7 river basins; Purchase of 14 numbers of ADCP as an effort for modernization of discharge observations; Modernization of training facilities in NWA Pune & Modernization of Water Quality Monitoring activity by providing state of art equipments. Initiatives include Stream flow forecasting including inundation forecast for Ganga Basin; Integrated Reservoir Operation particular for flood control and using cluster approach in Ganga Basin; Reservoir Sedimentation Studies using Hydrographic survey for 32 reservoirs; Study the issue of floods and siltation in river Ganga due to Farakka Barrage in the State of Bihar.

Coastal Management Information System (CMIS):

Implementation of Coastal Management Information System (CMIS) in the States of Tamil Nadu, Kerala and UT of Puducherry has been awarded to IIT Madras, Chennai and a tripartite MoU has been signed among CWC, IIT, Madras and respective States/UTs (Kerala, Tamil Nadu and Puducherry) for establishment of one coastal data collection site in each States/UT. Establishment of three no. of coastal data collection sites has completed under this project. The Two-year MoU signed for this project is now extended for another one year and MoU has been signed with respective states and expert agency in Jan/Feb 2020.

Implementation of Coastal Management Information System (CMIS) at 2 sites, one each in Maharashtra (northern region) and Gujarat (southern region) has been awarded to CWPRS, Pune and a tripartite MoU has been signed among CWC, CWPRS and respective States (Gujarat and Maharashtra). Establishment of two no. of coastal data collection sites (Satpati-Maharashtra, NanidantiMotidanti-Gujarat) is in progress under this project.

Implementation of CMIS at 3 sites, 2 in Goa and 1 in Southern Maharashtra, work has been awarded to NIO, Goa and a tripartite MoU has been signed among CWC, NIO and respective

States (Goa and Maharashtra). Establishment of three no. of coastal data collection sites (Tarkhali-Maharashtra, Benaulium-Goa, Baga-Goa) is in progress under this project.

Monitoring of Reservoir: Number of reservoirs under the monitoring of Central Water Commission increased from 120 Nos to 123 Nos in January 2020 and from 123 Nos it increased to 128 Nos in November 2020. Weekly Bulletins of Live Storage Status of the Country were issued even during the COVID 19 Pandemic Lockdown without fail. Simultaneously, Weekly Bulletins of Live Storage Status of the Country were also issued for Crop Weather Watch Group Meeting of Ministry of Agriculture and Farmers' Welfare every Friday even during the COVID 19 Pandemic situation.

Inter State Matters:

Pennaiyar/Ponniyar River Water Dispute: The Negotiation Committee constituted under the Chairmanship of Chairman, CWC to resolve dispute on use, distribution and control of the Inter-State River Pennaiyar and its tributaries w.r.t complaint of Govt. of Tamil Nadu under Section 3 of ISRWD Act, 1956 submitted its final report in 30.11.2020. In this regard, the Committee held two meetings on 24.02.2020 and 07.07.2020.

Tilaiya-Dhadhar Negotiation Committee: The Negotiation Committee constituted under the chairmanship of Chairman, CWC to resolve dispute on Tilaiya-Dhadhar Diversion Scheme w.r.t complaint of State of Bihar under Section 3 of ISRWD Act, 1956 submitted its final report in October 2020. In this regard, the Committee held three meetings on 13.2.2020, 23.06.2020 and 1.10.2020.

E. ATAL BHUJAL YOJANA (ATAL JAL)

Atal Bhujal Yojana (Atal Jal) is a Central Sector Scheme of Government of India with an outlay of Rs 6000 crores, with focus on community participation and demand side interventions for sustainable ground water management in identified water stressed areas of seven States in the country viz. Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The scheme, partly funded by the World Bank, was launched by the Hon'ble Prime Minister on 25.12.2019 and is being implemented from 1.04.2020 for a period of 5 years.

This unique scheme aims at increasing the capacity of States to manage their ground water resources and for ensuring their long-term sustainability with active participation of the local communities through a mix of top-down and bottom-up approaches. It also envisages convergence of various ongoing schemes for implementation of interventions for improving ground water availability with emphasis on demand management and also to inculcate behavioural changes in the community to ensure optimal use of available water resources.

The launch of Atal Bhujal Yojana heralds a change in the Government policy for ground water management by emphasising the importance of community participation in planning, execution, and monitoring of scheme activities; convergence of ongoing schemes

for implementing interventions aimed at improving ground water availability; focus on demand side management through improving water use efficiency and incentivizing participating States for awareness creation among the masses on the importance of ground water.

Atal Bhujal Yojana also envisages improving the capacity of States for ground water governance through strengthening of institutions dealing with ground water management, improving ground water monitoring networks, creation of awareness among the public on the importance and criticality of ground water resources and building the capacity of the grass root level stakeholders to plan and utilize the available resources in a judicious manner. It also addresses the gender perspective by making it mandatory to include women in all activities of the scheme.

Atal Bhujal Yojana is expected to improve ground water conditions in the target areas and to contribute significantly to ensure ground water sustainability for interventions planned under the Jal Jeevan Mission (JJM). It is also expected to contribute to the Hon'ble Prime Minister's goal of doubling farmers' income and to result in optimal use of ground water by the stakeholders in the long-run.

Work done under the Scheme is as follows:

- i. National Inter-departmental Steering Committee has been constituted & National Programme Management Unit (NPMU) has been established.
- ii. Program Guidelines have been issued
- iii. Third Party Government Verification Agency (TPGVA) is in place and is going ahead with preparations for the 1st round of verification of achievements of the States in respect of DLI#1 (Disclosure & Dissemination of ground water related information) for disbursement of incentives.
- iv. Preparation of web-based MIS to monitor progress of the scheme has advanced.
- v. Preparation of National & State Fiduciary Manuals are in advanced stages of finalization/approval.
- vi. Establishment of institutional mechanism for implementation of scheme is in progress in the participating States.
- vii. MoA has been signed with all seven States.
- viii. Release of funds to the tune of Rs. 24.05 crore under Institutional Strengthening and Capacity Building Component to four States viz. Gujarat, Haryana, Karnataka and Uttar Pradesh. Proposals for release of funds for Maharashtra & M.P are under approval, whereas proposals are awaited from Rajasthan.

ix. States are going ahead with preparatory activities for ground level implementation of the scheme.

F. Central Ground Water Board:

National Aquifer Mapping and Management Program: NAQUIM studies for aquifer mapping and management plan formulation have been taken up by CGWB. During 2020 (1st January to 30th November 2020), Aquifer Maps and Management Plans for 1.67 Lakh sq km have been prepared covering various parts of the country. So far, under the Aquifer Mapping programme, an area of 13.50 lakh km² has been covered out of the total 24.8 lakh km² area identified for mapping in the country.

Several Training and outreach programs including Public Interaction programs (PIPs) and Mass Awareness Programme on Rainwater Harvesting have been conducted. As a part of the three-tiered training programme being implemented by Rajiv Gandhi National Ground Water Training and Research Institute (RGNGWTRI) a total of 63 trainings of various types (Tier I- 25, Tier II- 22 & Tier III- 16) were conducted during January to November 2020. Nearly 4641 participants included ground water professionals as well as users at grassroots level participated in the programmes.

Inauguration of new building of RGNGWTRI – The Union Minister of Jal Shakti Sh. Gajendra Singh Shekhawat inaugurated the new building of Rajiv Gandhi National Ground Water Training & Research Institute (RGNGWTRI) at Raipur on 25th Feb., 2020.

Artificial Recharge in Aspirational Districts: An innovative scheme on Aquifer Rejuvenation has been undertaken CGWB in which innovative artificial recharge techniques for aquifer rejuvenation has been carried out in Aspirational districts of the States of Maharashtra, Telangana and Andhra Pradesh. The work has been executed in three blocks- one each in Andhra Pradesh, Telangana and Maharashtra state. The interventions have resulted in improvement of ground water situation in the area.

Bridge Cum Bhandara: Bridge-cum-bhandara is a water conservation structure that serves the dual purpose of transportation as well as storage of water in the upstream side. Such structures have been constructed at five locations in parts of Maharashtra State.

Khamgaon Village-Osmanabad	Bridge cum Bhandara
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PMKSY-HKGP-GW

The PMKSY-HKGP-GW scheme aims to create additional irrigation command from ground water for Small and Marginal farmers. During Jan to Nov 2020, projects of Rs 1078.60 crore have been approved by Ministry of Jal Shakti. These projects, on completion will create additional command area of 83665 ha, in States of Tamil Nadu, Manipur, Mizoram, Telangana, West Bengal and Assam and expected to benefit nearly 1.48 lakh small and

marginal farmers. Further, Rs 103.38 crore has also been released during Jan to Dec 2020, to the States of Arunachal Pradesh, Mizoram, Manipur, Tripura, Tamil Nadu and Uttar Pradesh as Central Assistance.

G. National Water Informatics Centre:

Water Information Management System (WIMS): It is centralized web enabled data aggregating platform developed to capture both surface water and ground water resources data in automated manner through telemetric sensors and by manual data entry. Almost all central & State agencies are sharing their time series data on river level, discharge, reservoir level, ground water level, surface & ground water quality etc on the portal.

India-Water Resource Information System (India-WRIS): It is a web portal for visualization and dissemination of water resources related information. During the year, the system has been revamped by combining and improving upon the previous systems and adding several new modules. The system now contains spatial, non-spatial, time series and static hydro-meteorological data like rainfall, river water levels and discharge, ground water levels, water quality, soil moisture, climatic, geological and other geomorphological data on a standardized National GIS framework for utilization by users. There are 9 dynamic modules, 12 semi dynamic modules, 13 static modules and 11 utilities available for the users to access, download and visualize the information.

The two portals / System are constantly being upgraded by adding new layers to make the portals more robust, dynamic and enriched.

Data Dissemination: Apart from regular arrangements made with organizations under the Department of Water Resources RD & GR like Central Water Commission, Central Ground Water Board etc., arrangements have been made with Survey of India, Central Pollution Control Board and other departments of state governments for regular data sharing and further dissemination of information to public.

The data available in India-WRIS is shared through API with the Office of Principle Scientific Adviser to Government of India for development of mobile application for farmers of the country as a part of KisanMitr Project and Niti Aayog for development of National data and analytics platform.

H. Progress under the scheme “Irrigation Census”:

Minor Irrigation Census conducted quinquennially in order to create a sound and reliable database on groundwater and surface water minor irrigation schemes in the country. The Minor Irrigation Census is conducted under the centrally sponsored scheme “Irrigation Census” with 100% central funding through which State Statistical Cells constituted under different States/UTs are also supported. The sixth Minor Irrigation Census with reference year 2017-18 is currently under implementation where in the Ministry has also launched the first Census of Water bodies covering all water bodies in the country, both rural and

urban. During 2020, the following progress under the scheme “Irrigation Census” has been achieved:

- i. After completing the preparatory work like drafting of schedules, instruction manual, Operational Guidelines, development of data entry and validation software, development of mobile App for capturing latitude, longitude and photograph of the water body, training of field personnel etc., the field work of 6th Minor Irrigation Census and first Census of Water bodies is progressing in the States/UTs. During 2020, sixteen States have completed the field work. The field work in remaining States/UTs is fast progressing.
- ii. The first installment of funds amounting to 40% of the cost of the census was released to all States/UTs for undertaking the planning of census, training of field personnel, procurement of mobile phones, payment of honorarium, printing of schedules etc. Revalidation of unspent balances were done as per requests received from State Governments.
- iii. The releases were also made to the state Statistical Cells for incurring expenditure on salaries, allowances etc.

I. Completion of balance works of North Koel Reservoir Project

The Department has taken up the long pending project for completion of balance works of North Koel Reservoir Project, Bihar and Jharkhand on North Koel river is situated in the most backward tribal area of Palamu and Garhwa districts of Jharkhand. The Union Cabinet has approved the proposal for balance works of North Koel Reservoir Project at an estimated cost of Rs 1622.27 crore during three financial years from the start of the project. Project will provide irrigation benefit to 111,521 hectares of land annually in drought prone areas of Aurangabad and Gaya districts of Bihar and Palamau and Garwa districts of Jharkhand. Project also has the provision for supply of 44 MCM water for drinking and industrial water supply.

The progress of work has been quickened since January, 2020 and Ten Gates of Mandal Dam have been fabricated and inspected, 10% works on Dam & Appurtenant has been completed, 80% Progress has been achieved at Mohammadganj Barrage while 70% Progress achieved at Left Main Canal (LMC). 5% works on Right Main Canal (Jharkhand Portion) has been completed

J. Flood Management and Border Areas Programme (FMBAP)

The existing Flood Management Programme (FMP) and River Management Activities and Works related to Border Areas" (RMBA) schemes of this Ministry has now merged into single scheme titled "Flood Management and Border Areas Programme" (FMBAP) for three year period from 2017-18 to 2019-20 and further extended upto March, 2021. Central Assistance of Rs. 171.1834 Cr. has been released to States/UTs Since January, 2020 to till date in current calendar year under this scheme.

K. India and Bangladesh Matters

India-Bangladesh Joint Committee Meeting on sharing of Ganges Waters at Farakka

The 73rd&74th meeting of India Bangladesh Joint Committee and Joint Inspection of the Joint Hydrological Observation site on river Ganga at Farakka as per the provisions of "Ganga / Ganges Water Sharing Treaty of 1996" was held at Farakka / Kolkata during 24th to 28th February, 2020.

L. Revision of National Water Policy (2012)

In order to meet the present challenges in water sector, revision of National Water Policy 2012 has been envisaged by the Department. A Drafting Committee has been constituted on 5th November, 2019 to revise the National Water Policy.

M. NATIONAL RIVER CONSERVATION DIRECTORATE

Cleaning of river is a continuous process and Government of India is supplementing the efforts of the State Governments in addressing the challenges of pollution of rivers by providing financial and technical assistance. Assistance is provided to State Governments for abatement of pollution in identified stretches of various rivers (excluding river Ganga and its tributaries) under the Centrally Sponsored Scheme of National River Conservation Plan (NRCP) on cost sharing basis between the Central & State Governments for taking up various pollution abatement works relating to interception & diversion of raw sewage, construction of sewerage systems, setting up of sewage treatment plants, low cost sanitation, river front/bathing ghat development, etc.

Achievements and initiatives under NRCP:

- Project for upgradation and rehabilitation work of river Rani Chu in Zone-I, Gangtok, Sikkim sanctioned for Rs.95.36 crore
- Project of "Assessment of ecological status of the select 6 Indian rivers (namely Cauvery, Godavari, Periyar, Mahanadi, Narmada & Barak River)" under National River Conservation Plan (NRCP) by Wildlife Institute of India (WII), Dehradun at an estimated cost of Rs. 24.56 crore.
- Central funds amounting to Rs.89.15 crore released to various State Governments including payment to Project Management Consultant for implementation of projects under NRCP.
- In order to broad base the activities under NRCP and amalgamate biodiversity conservation and stakeholder participation in the river conservation process, WII (Wildlife Institute of India) has been entrusted to carry out a biodiversity study for six rivers, Mahanadi, Narmada, Godavari, Periyar, Cauvery & Barak.

N. CADWM WING:

Government of India is implementing a scheme called Command Area Development & Water Management (CADWM) under Pradhan Mantri Krishi Sinchai Yojana (PMKSY). The scheme was launched with an aim to enhance physical access of water on farm and expand

cultivable area under assured irrigation. 99 prioritized Projects have been identified for expeditious completion adopting innovative funding through creation of 'Long Term Irrigation Fund' under NABARD. The targeted Culturable Command Area (CCA) of the presently 88 included projects is 45.08 lakh Ha. and estimated central assistance (CA) is Rs 8300 crore. During 2016-17 to 2020-21 (upto November, 2020), CA amounting to Rs 2677.702 crore was released to 74 projects while the CCA progress reported by States is 14.18 lakh ha. During 2020-21, CA amounting to Rs 133.45 crore has been released to 27 projects.

Central Soil and Materials Research Station (CSMRS):

The contributions of CSMRS in the field of Geotechnical Investigation of River Valley Projects are:

- Carried out Geotechnical Investigations for 34 Water Resources Projects.
- 24 Project Reports on Geotechnical Investigations were prepared.
- Publication of 12 Research Papers in National and International Journals/Conferences.
- Comments imparted on 29 Detailed Project Reports and their compliances.
- Organization of 3 virtual training courses in which 230 Engineers/trainees/students from various Organisations/Institutions/colleges participated.
- Involved in the 12 numbers of dam rehabilitation project under DRIP
- CSMRS Signed MoU with Norwegian Geotechnical Institute Oslo, Norway on cooperation in the field of geotechnical engineering and materials sciences.

CSMRS also Signed QA/QC MoU with THDC for PSP Tehri project (4×250 MW) Uttarakhand; THDC for VPHEP (4×111 MW) Uttarakhand; Uttarakhand Jal Vidyut Nigam Limited for Vyasi HE project (2×60 MW) Uttarakhand; Polavaram Project Authority for Polavaram Project, Andhra Pradesh; Bhaunrat Dam Project, Uttar Pradesh; Kanhar Irrigation Project, Uttar Pradesh; Garada Dam Project, Rajasthan and Kolongchhu HE Project, Bhutan.

The Geotechnical and construction materials survey investigations for the interlinking projects were carried out. Some of the projects include Damanganga (Ekdare)-Godavari Valley Link Canal, Nasik, Maharashtra; Damanganga (Vaitarna) - Godavari link canal Project, Nasik; Mahanadi-Godavari Link Canal Project, Odisha Portion; Wainganga-Nalganga Interlinking Project, NWDA, Maharashtra (Phase-II) and Sone Dam STG Link Canal Project, Bihar.

The contribution of CSMRS towards the realization of the Interlinking of rivers to utilize every single drop of water for country's development has been highly fruitful – not only in providing design parameters but also in reducing the project cost by suggesting changes in the alignment of the links based on the investigations.

P. Tungabhadra Board: Modernization of TB Right Bank Low Level Canal from K, 0.000 to km 70.000 which has been taken up during 2018-19 has been progressed to 83% from 30% during the year 2020. Modernization of TB Right Bank Low Level Canal from km 70.00 to Km 115.000 has been taken up from April, 2020 and is under progress (30% completed during the year 2020). Canal flow measurement with modern Accoustic Doppler Current Profiler (ADCP) has been implemented in the TB Board. This is propagating awareness among the farmer community about the over usage and misuse of canal water. Since this is a continuous process this is being continued during the year 2020 also.

Installation of Telemetry system has been commissioned and daily live flow data of TB Project canals is being displayed on the website tbbliveflow.com and TB Reservoir & other details are displayed on the website www.tbboard.gov.in for the information of member States, general public and farmer community. Being a continuous activity, this is continued during the year 2020 also.

Q. Krishna River Management Board: Two meetings of the Board were convened and resolved various issues of both the States regarding new projects taken up by both the States and in regulation of Krishna water supply from common projects of Srisailem and Nagarjuna Sagar. 3rd and 4th meetings of the Committee constituted by MoWR, RD&GR vide order date No.R-12011/7/2016-Pen. Riv. Dated 05.10.2018 to ensure supply of Krishan water to augment the drinking water supply to Chennai city were held on 05.02.2020 and 22.07.2020. During the water year 2019-20, a quantity of 10.0725 TMC water was released at Srisailem reservoir and the quantity realized at A.P. – T. N. border is 8.058 TMC.

During this water year 2020-21 up to 07.12.2020, a quantity of 4.885 TMC of water released at Srisailem and the quantity realized at A.P.-T.N. border is 3.884 TMC. Calibrations of various telemetry stations installed in Krishna basin were carried out. Reconciliation meetings were convened by KRMB with officials of both the State of Andhra Pradesh and Telangana to sort out the differences in figures of water utilizations.

R. SURFACE MINOR IRRIGATION (SMI) AND REPAIR, RENOVATION AND RESTORATION (RRR) OF WATER BODIES SCHEMES OF PMKSY-HKKP:

Under the Surface Minor Irrigation (SMI) scheme, since 12th plan onwards, 6213 schemes are ongoing with an estimated cost of ₹ 13449 crore. Central Assistance (CA) of Rs. 7299 crore has been released to states upto March, 2020. Further, 3397 schemes have been reported to be completed upto March, 2020. Target irrigation potential creation of these schemes is 10.529 L Ha and out of this, 6.852 L Ha is reported to be created till March,

2020. In the current financial year, ₹ 214.69 crore has been released to 13 SMI schemes from 7 States till date.

Under the Repair, Renovation and Restoration (RRR) of Water Bodies scheme, since 12th plan onwards, 2219 schemes are ongoing with an estimated cost of Rs. 1910 crore. Central Assistance (CA) of Rs. 433 crore has been released to states up to March, 2020. Further, 1465 water bodies have been reported to be completed up to March, 2020. Target irrigation potential restoration of these schemes is 1.888 L Ha and out of this, 1.319 L Ha is reported to be restored till March, 2020. In the current financial year, Rs. 34.53 crore has been released to one RRR of Water Bodies schemes of Odisha till date.

S. NATIONAL WATER MISSION:

National Water Mission has launched a campaign – “Catch the Rain” with a tagline “Catch the Rain – when it falls, where it falls” to nudge all stake-holders to create Rain Water Harvesting Structures (RWHS) suitable to the climatic conditions and sub-soil strata to catch the rains with the people’s active participation. Under this campaign drives to make water harvesting pits, rooftop RWHS, check dams, etc; removal of encroachments and desilting of tanks to increase their storage capacity; removal of obstructions in the channels which bring water to them from the catchment areas, etc; repairs to step-wells and using defunct bore-wells to put the water back to aquifers, etc are some of the activities suggested to be taken up.

To facilitate this, NWM has been propagating that Rain Centres should be setup in every district or GP headquarters, to give technical guidance to people on Rain Water Harvesting Structures. NWM has requested to States and District Magistrates (DM) to establish Rain centres in every district headquarters. These RCs can be developed in future as “Jal Shakti Kendras” acting as knowledge centres on water-linked topics like RWHS, restoration, desilting of water bodies, ground water recharging, water saving practices in agriculture, industry, drinking water etc. State Governments have started setting up rain centres in the districts. A number of districts in the country which include Dantewada, Chhattisgarh; Changlang, Arunachal Pradesh; Balia, Uttar Pradesh and South Andaman, A&N Islands have responded to our request and already started ‘Rain Centres’ in their districts.

NWM had requested the State Governments, Central Ministries/ Departments, AAI, Railway Board, Army, Airforce, Navy, Universities, IITs, IIMs, Central Armed Police Forces, Ordnance Factory Board, Sports Authority of India, Military Engineering Services, CPSEs, NYKS etc. to create rain water harvesting & artificial recharge structures and to support NWM in its catch the rain campaign.

Airport Authority of India (AAI) has affirmed that they have already implemented various measures to store/recharge the rainwater' to the aquifers at most of the Airports, thus contributing to "Catch the Rain" campaign of "National Water Mission". In addition, RWHS system is also being implemented at all the major airport projects of AAI. Many organizations have also responded to our request for supporting catch the rain campaign

and informed us about the details of activities undertaken under the campaign. The campaign is also endorsed by dignitaries like the Vice President of India; Vice Chairman, NITI Ayog; CEO, NITI Ayog; Senior Government Officials; water experts - Shri Sonam Wangchuck; Dr Anil Joshi etc and influencers like Shri Ravishankar ji, Shri Gopi Chand etc.

The campaign was initiated in February this year i.e well before the onset of ensuing monsoon and it has evoked a very good response. Corporate bodies like FICCI has also organized a series of 4 Webinars on “Catch the Rain” to promote the campaign within the industrial sector. A weekly dialogue series on “Catch the Rain” has also been started where Collectors/District Magistrates/Commissioners and water activist have been invited to share their commendable work in their districts to address the water issues. NWM has involved Nehru Yuva Kendra Sangthan (NYKS) for undertaking the ‘Catch the Rain’ awareness campaign to cover 623 districts in 31,150 villages.

SahiFasal Campaign

In India, 85-89% of water usage is for agricultural purposes and about 5% usage is for drinking and domestic purposes. Hence, even a small percentage saving of water in agricultural usage will have a significant impact in water availability for drinking and domestic purposes. ‘SahiFasal’ campaign was launched by National Water Mission on 14.11.2019 to nudge farmers in the water stressed areas to grow crops which are not water intensive, but use water very efficiently; and are economically remunerative; are healthy and nutritious; suited to the agro-climatic-hydro characteristics of the area; and are environmentally friendly. Creating awareness among farmers on appropriate crops, micro-irrigation, soil moisture conservation etc; weaning them away from water intensive crops like paddy, sugarcane etc. to crops like corn, maize etc which require less water; assisting policy makers to frame policies that make effective pricing of inputs (water and electricity); improve procurement and market for these alternate crops; create appropriate storage etc ultimately leading to increase in the income of farmers are the key elements of “SahiFasal”. Under SahiFasal, series of workshops are being organized in the water stressed areas of the country. Currently four workshops have been organized in Amritsar (Punjab) on 14.11.2019, New Delhi on 26-27.11.2019, Aurangabad (Maharashtra) on 13.01.2020 and Kurukshetra (Haryana) on 14.02.2020. Punjab/Haryana has taken steps for crop diversification.

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