



JALANSH



The Monthly Newsletter of Central Water Commission



Message

R. K. Jain
Chairman, CWC

This month has witnessed a great achievement for the country as the Union Cabinet, in its meeting held on 29.10.2020, has approved externally aided Dam Rehabilitation and Improvement Project (DRIP) Phase II and Phase III. The project will initially cover Nineteen States and three Central Agencies. The Budget Outlay is Rs. 10,211 crore with an implementation period of ten years. The Project will be implemented in two Phases of six years duration each with an overlap of two years. The first phase of the DRIP, which covered 223 dams in seven States, improved the safety and operational performance of these dams, along with institutional strengthening through a system wide management approach. The implementation of the project would be

supervised by CWC through a Project Directorate which has already been established.

The second Apex Council Meeting was held on 06.10.2020 through video conferencing, under the Chairmanship of Shri Gajendra Singh Shekhawat, Hon'ble Union Minister for Jai Shakti with Shri Y. S. Jagan Mohan Reddy, Hon'ble Chief Minister of Andhra Pradesh and Shri K. Chandrashekar Rao, Hon'ble Chief Minister of Telangana. Various decisions were taken in the meeting with regard to notification of jurisdiction of GRMB and KRMB, the Headquarters of KRMB, disputes related to Waters of Godavari & Krishna, appraisal process for the new Projects etc.

The 14th Meeting of the Investment Clearance Committee constituted for making recommendations regarding Investment Clearance in respect of major & medium irrigation, flood control and multipurpose projects was held on 22.10.2020 under the Chairmanship of Secretary (DoWR, RD&GR) through Video Conferencing. Flood Control projects of Himachal Pradesh & Manipur and Kosi Mechi Link Project of Bihar were considered and accepted by the Committee.

Keeping in view the latest trends in water sector, revision of the National Water Policy (2012) was envisaged by Ministry of Jal Shakti and a Drafting Committee was

accordingly constituted in 2019 under the Chairmanship of Dr. Mihir Shah, Former Member, Planning Commission. A consultation meeting with drafting committee was held on 09.10.2020 wherein views of CWC were presented.

National Water Academy (NWA) has initiated various training programmes through distance learning mode. A collaboration has been developed with International Commission on Irrigation and Drainage (ICID) and first joint on-line International Certificate Course on "Micro Irrigation Systems" has been launched by NWA, CWC along with other industrial partners. The course was started on 07.10.2020. A Webinar series on "Interstate River Water Disputes in India" has been conceptualized by NWA, Pune for proper understanding of the water disputes, processes involved in resolution of different types of disputes and to build capacities of all stakeholders to effectively contribute in resolving water conflict in their working capacities. The webinar series commenced on 19.10.2020.

Shri R. C. Jha, former Chairman, CWC left for heavenly abode on 24.10.2020. On behalf of CWC, I express heartfelt condolences on his untimely demise and pray the almighty to grant eternal peace to the noble soul.

R. K. Jain

NATIONAL
WATER AWARDS

जल शक्ति विभाग
जल संचालन, नदी विकास और संग्रह विभाग
भारत सरकार
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
GOVERNMENT OF INDIA

3rd National Water Awards 2020

Invitation for Applications

Last Date Of Submission 10th February 2021

For Application & More Details, Log on to mygov.in or cgwb.gov.in

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- Obituary
- History-Bhakra Dedication Day

Cabinet Approval for externally aided DRIP Phase II and Phase III

The Union Cabinet has approved externally aided DRIP Phase II and Phase III in its meeting held on 29.10.2020. The project will initially cover Nineteen (19) States and three (3) Central Agencies. The Budget Outlay is Rs 10,211 crore for an implementation period of ten (10) years. The scheme will be implemented in two Phases, each of six (6) years duration, with two (2) years' overlap. The programme will fund physical rehabilitation of key dams as well as capacity building of dam operators in order to ensure availability of trained and skilled manpower for better operation of dams.

India ranks third globally after China and the United States of America with 5334 large dams in operation. In addition, about 411 dams are under construction at present. There are also several thousand small dams. These dams are vital for ensuring the water security of the Country. Indian dams and reservoirs play an important role in the economic and agricultural growth of our country by storing approximately 300 billion cubic meter of water annually. These dams present a major responsibility in terms of asset management and safety. Due to deferred maintenance and other safety issues, these dams may develop associated risks of failure. The consequences of dam failure can be catastrophic in terms of loss of human life and property and damage to ecology.

The first phase of the DRIP programme, which covered 223 dams in 7 states, improved the safety and operational performance of these dams, along with institutional strengthening through a system wide management approach.

In order to carry forward the momentum gained through ongoing DRIP and expand it vertically and horizontally, a new Scheme, DRIP Phase II co-financed by World Bank (WB) and Asian Infrastructure Investment Bank (AIIB) with US\$250 million each covering large dams in 19 states of the country has been launched. This Scheme is especially focused on mitigating the risks of dam failure and ensuring safety of people, maintaining riverine ecology and protecting property located downstream of these selected dams through structural as well as non-structural measures like physical rehabilitation, preparation of Operation and Maintenance Manuals, Emergency Action Plans, Early Warning System and various other measures.

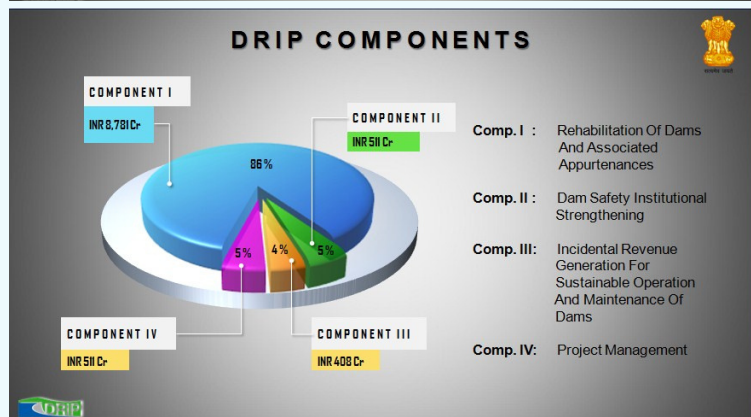
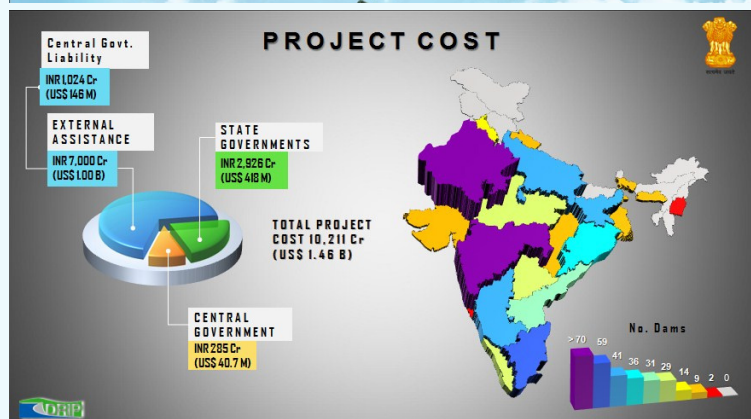
Life of these selected reservoirs will be extended further by addressing health and safety concerns of these selected dams. In turn, these assets will provide planned benefits efficiently for longer period to public at large in terms of various direct benefits like irrigation, drinking water, hydel power, flood control etc. In addition to physical rehabilitation, as mentioned before, equal emphasis has been given for capacity building of dam owners in order to ensure availability of trained and skilled manpower for better operation of dams during all the seasons in a year. Customized training programmes for various technical and managerial aspects will assist dam owners to create a pool of knowledge to deal with the matters of dam safety confidently and scientifically.

In view of the size of India's dam portfolio and challenges in operating and maintaining these existing assets, Government of India is making all out efforts to ensure the availability of a pool of dam safety professionals across the country. The provision for partnerships with premier Academic Institutions like IISc, Bengaluru and IITs and capacity building of five (5) Central Agencies along with the dam owners will strengthen "Atma Nirbhar Bharat". It will ensure long term sustainability of required knowledge and human resources to assist our dam owners. India will also position herself as a knowledge leader on dam safety, particularly in South and South East Asia.

The programme will enable States and the dam owners to extend these safety protocols and activities beyond the selected dams to all other dams

Meeting by Secretary, DoWR, RD&GR for follow up action regarding meeting taken by Hon'ble Home Minister on flood situation

Secretary, DoWR, RD&GR chaired a meeting on 21.10.2020 to discuss follow up actions on the decisions taken in the review meeting taken by Hon'ble Home Minister. Meeting was attended by all stakeholders involved in the activity. During the meeting it was decided that the 3-day flood advisories can be extended to 5-day from the ensuing flood season



within their jurisdiction and overall enhancing the culture of dam safety in the country. This programme complements the provisions in the Dam Safety Bill 2019, by ensuring capacity building of the dam owners as well as the proposed regulators and creating necessary protocols for dam safety. It is likely to generate employment opportunities equivalent to approximately 10,00,000 person days for unskilled workers and 2,50,000 person days for working professionals.

This program will enhance water security in the Country and support sustainable development.

as well as pending development of Decision Support System, the Integrated Reservoir Operation for flood management can be operationalised regionally with meetings of Flood Crisis Management Teams (FCMT) constituted for that purpose in times of flood crisis.

DPR of Kharswati Project

A MOU for taking up the Survey & Investigation and preparation of DPR of 31 Nos. irrigation schemes was signed between CWC and Water Resources Department, Govt. of Jharkhand on 29.08.2017. Out of 31 projects, 20 projects have been entrusted to Brahmaputra & Barak Basin Organization (B&BBO), CWC, Shillong while 11 projects to Planning Circle, CWC, Faridabad under Yamuna Basin Organization (YBO), CWC, New Delhi. 10% of accepted estimated cost of the said work was released in Dec, 2017. Accordingly, works for preparation of Pre-Feasibility Report (PFR) was started thereafter from January, 2018. Feasibility Reports of all the schemes were submitted in June, 2018 to WRD, Govt. of Jharkhand.

The Kharswati Irrigation scheme is one of the important schemes located in tribal area of Ghatshila Block in East Singhbhum district of Jharkhand. After detailed survey and investigation, DPR of this Irrigation Scheme has been prepared by Planning Circle, CWC, Faridabad and same has been submitted to WRD, Govt. of Jharkhand on 26.10.2020. The scheme is having GCA of 2150 ha and CCA of 1350 ha. The annual irrigation of the project has been worked out as 2025 ha at 150% irrigation intensity. The B. C. ratio of Kharswati Irrigation Scheme works out is 1.22. Other benefits



from the project are supply of drinking water to 10000 villagers, pisciculture, development of animal husbandry and tourism in the command.

2nd meeting of Apex Council – AP Reorganisation Act 2014

The Andhra Pradesh Reorganisation Act (APRA), 2014 bifurcated the State of Andhra Pradesh into Telangana and the residuary Andhra Pradesh State. Along with other administrative matters, the Act provides for provisions for management and development of water resources in the successor States viz. constitution of Apex Council, Godavari River Management Board (GRMB) & Krishna River Management Board (KRMB), declaration of Polavaram Irrigation Project as a national project etc.

The Apex Council is headed by Minister of Water Resources (now Ministry of Jal Shakti), Government of India and the respective Chief Ministers of successor States are Members of the Apex Council. Apex Council is mandated to supervise the functioning of the GRMB and KRMB, plan/approve new projects based on the waters of river Krishna & Godavari and settle the disputes related to sharing of aforementioned river waters.

The second Apex Council Meeting was held on 06.10.2020 through video conferencing under the Chairmanship of Shri Gajendra Singh Shekhawat, Hon'ble Union Minister for Jal Shakti with Shri Y. S. Jagan Mohan Reddy, Hon'ble Chief Minister of Andhra Pradesh and Shri K. Chandrashekar Rao, Hon'ble Chief Minister of Telangana. Senior officers from DoWR, RD&GR, GRMB, KRMB and CWC attended the meeting. The summary of decisions taken is as follows:

- The jurisdiction of GRMB and KRMB shall be notified by the Government of India. The Hon'ble CM of Telangana expressed his disagreement on this. Hon'ble Union Minister clarified that it is the Central Government's prerogative for such notification as per the APRA-2014 and thus the same will be notified as per the express mandate of the APRA-2014.

- For considering the request of Telangana for a tribunal under section-3 of the ISWRD Act of 1956, Telangana has to withdraw the case it has filed in the Supreme Court on the subject. After receiving such assurance,

3rd Meeting of the Negotiation Committee regarding Tilaiya - Dhadhar Diversion Scheme

Govt. of Bihar submitted a complaint dated 04.01.2018 to the Central Govt. under Section 3 of Inter-State River Water Disputes (ISWRD) Act, 1956 raising a dispute on Tilaiya Dhadhar Diversion Scheme. As per Section 4(1) of ISWRD Act, 1956, DoWR, RD & GR vide letter dated 6.01.2020 a Negotiation Committee was constituted to resolve the issue of Tilaiya Dhadhar Diversion Scheme under the Chairmanship of Chairman, CWC.

The 1st, 2nd and 3rd meeting of Negotiation Committee were held on 13.02.2020, 23.06.2020 and 01.10.2020 respectively. Representative from Govt. of Bihar, Govt. of Jharkhand, Govt. of West Bengal, Officers from DoWR, RD & GR and CWC, DVRRC and DVC participated in the aforesaid meetings.

The Negotiation Committee made sincere attempts to resolve the issue amicably between the Party States. The final report of the Negotiation



Ministry of Jal Shakti, GoI will seek legal opinion on whether a new Tribunal has to be appointed or new Terms of Reference can be issued to KWDI-II to hear the matter. Hon'ble CM of Telangana agreed to withdraw the case in Supreme Court.

- Both the States shall submit the DPRs of new projects to the Boards immediately for appraisal and subsequent approval by Apex Council. Hon'ble Union Minister assured that the appraisal would be done in the shortest possible time. Both Hon'ble Chief Ministers agreed to submit the DPRs.

- As agreed by both the States, the Headquarters of KRMB will be shifted to Andhra Pradesh.

- Both the States agreed for setting up of a Godavari Tribunal for adjudicating on the sharing of the waters of Godavari between AP and Telangana. Hon'ble Union Minister requested both the States to send their proposal for the same. He assured that the Ministry will take a positive decision in this regard. Hon'ble CM of Telangana stated that he would send the request immediately for constituting a Tribunal.



Committee was submitted to the Additional Secretary, DoWR, RD & GR, MoJS vide letter dated 12.10.2020.

14th Meeting of Investment Clearance Committee

The 14th Meeting of the Investment Clearance Committee constituted for making recommendations regarding Investment Clearance in respect of major & medium irrigation, flood control and multipurpose projects was held on 22.10.2020 under the Chairmanship of Secretary (DoWR, RD&GR) through Video Conferencing. The meeting was attended by officers from DoWR, RD & GR, NITI Aayog, CWC, Govt. of Bihar, Govt. of Manipur and Govt. of Himachal Pradesh. From CWC, Chairman, CWC, Member (WP&P), Member (RM), Member (D&R), Chief Engineer(PAO), Chief Engineer (IMO), Chief Engineer Designs (N&W) participated in the meeting.

Total 4 projects as per the details below were considered and accepted by the Committee.

Sl. No.	Project Name	Cost (Rs. Crore) & Price Level	State	Category
1	Swan River Flood Management Project downstream of Santokgarh bridge up to HP-Punjab boundary, District Una	46.80 (2013-14)	Himachal Pradesh	Flood
2	Critical Flood control and anti-erosion works along rivers in Manipur river basin	460.426 (2017)	Manipur	Flood
3	An Integrated Approach to Flood Management & control on rivers/streams and drainages in Loktak sub-basin of Manipur	62.14 (2017)	Manipur	Flood
4	Kosi Mechi Link Project, Bihar	4900 (2015-16)	Bihar	Irrigation

CWC-CPR Coordination Meeting

CWC-Centre for Policy Research (CPR) Coordination Meeting was held on 26.10.2020 under the Chairmanship of Chairman, CWC. Meeting was attended by Member(WP&P), CWC; Chief Engineer (IMO), CWC; Director(ISM-1) Dte., CWC; Shri A. B. Pandya, Secretary General, International Commission on Irrigation & Drainage (ICID) and Dr. Srinivas Chokkakula, MoJS Research Chair.

During the meeting, CWC shared detailed inputs on the changes to be incorporated in the draft report on "Contours of Cooperation" prepared by CPR.

Panel discussion on "Strengthening Multi-sector Coordination for Emergency Preparedness and Response - WASH Sector"

Nature responds to some of the most pressing challenges faced by humans today. It provides us with oxygen, purifies the water we drink, ensures fertile soil and produces the variety of foods; we require staying healthy and resisting disease. However, humans have pushed nature beyond limit by not managing their waste properly and polluting the entire ecosystem and its biodiversity.

Among all, water is a very essential and vital resource for all living organisms on the earth. Clean and pollution free water is the prime and essential requirement of any civilization. Water pollution is one of the severe challenges which is being faced by the many countries in the current scenario. In India, at present there are many Acts, laws and policies that have been framed by government to tackle & control the pollution of surface water through many ways.

Central and State Governments are already taking many steps in the areas of conservation, preservation and prevention of pollution of water. Also many schemes have been running in parallel to address the issues of water stressed blocks and districts of the country. Many governments

11th Meeting of the Governing Body of the National Institute of Disaster Management (NIDM)

Member(RM), CWC is one of the representatives of the Governing Body of the NIDM representing Chairman, CWC. This is an annual meeting which is held every year to discuss the governance of NIDM and decisions for smooth running of the Organisations are taken and acted accordingly by NIDM. 11th Meeting for the same was held on 15.10.2020 and was attended by Member(RM), CWC and Director (FFM), CWC.

and educational institutions are also involved in this area. Central Water Commission (CWC) over the years has developed expertise and capabilities in areas of water resources management in the country through its monitoring network covering river basins spreads all over India and carrying out monitoring activities- like river gauging / discharge / sediment and water quality. CWC has a HO network since 1948, comprising of around 1600 hydrological observation sites currently.

CWC is engaged in the water quality monitoring as an essential component of the integrated hydrological observations and river water samples are collected at the water quality sites distributed all over the river basins in the country since 1963. Initially, CWC started the water quality monitoring with the limited purpose of classification of water for irrigation and other related uses. Later on, realizing the growing threat of vast pollution loads being discharged into the rivers, it was considered necessary to monitor the water quality parameters also.

Shri R. K. Sinha, Member(RM), CWC during his address highlighted above activities of CWC in the panel discussion held on 06.10.2020.

DRIP

Meeting to discuss issues related to on-going works at Krishna Raja Sagar (KRS) Dam

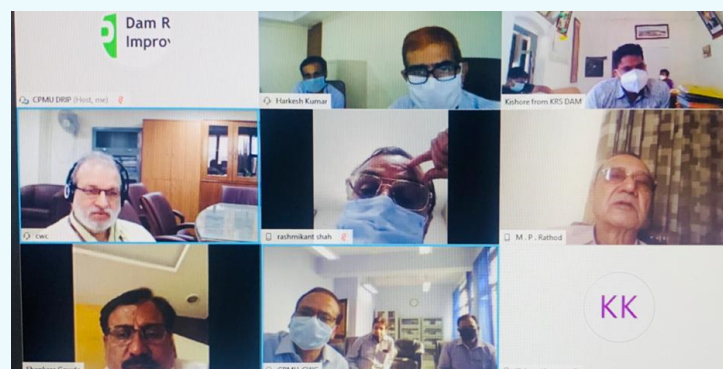
A virtual meeting was held on 05.10.2020 to discuss the issues related to approval of design and drawings for on-going KRS gates replacement Work. The meeting was attended by the officials of CWC, Karnataka WRD and Contractor.

Tripartite Pipeline Review Meeting held on 07.10.2020

A virtual Tripartite Pipeline Review Meeting, organised by DEA, Ministry of Finance was held on 07.10.2020 to review the preparedness of States for participation in new DRIP Phase II & Phase III. The meeting was attended by officials of DEA, World Bank and CWC.

Meeting with KPCL regarding preparedness for DRIP Phase-II and Phase-III held on 08.10.2020.

A virtual meeting was held on 08.10.2020 with Karnataka Power Corporation Limited (KPCL) to review the preparedness in respect of participation in the new DRIP Phase II & Phase III. CPMU apprised the KPCL about the Readiness Criteria of DEA and World Bank for joining new Scheme. Managing Director, KPCL assured that all remaining preparatory activities shall be expedited. The meeting was attended by KPCL delegation led by Shri V Ponnuraj, Managing Director, KPCL and officials of World Bank and CWC.



Virtual launch of South-Asia Flash Flood Guidance Services by Secretary, MoES

Ministry of Earth Sciences and India Meteorological Department launched the South Asia Flash Flood Guidance Services on 23.10.2020 virtually through Video Conference. The launch was attended by various dignitaries from World Meteorological Organisation (WMO), Chairman, CWC, Member(RM), CWC & Deputy Director (HM), FFM Directorate, CWC, South

Asian Regional Association member countries of WMO such as Nepal, Bhutan, Bangladesh and Sri Lanka represented by the representatives of National Hydrological Services. Chairman, CWC while speaking on the occasion lauded the service provided by IMD in its pre-launch version and requested IMD to share the digital data for use in hydrological models.

2nd Steering Committee Meeting for Common Alerting Protocol (CAP) Project

National Disaster Management Authority has developed a system of CAP for alerting general population affected by various Disasters. CWC, being the nodal agency for issue of Flood Forecast is represented by Chairman, CWC in the Steering Committee. Chairman, CWC has delegated Member(RM), CWC to attend the Steering Committee meetings. Department of Telecommunication along with Centre for Development of Telematics (C-DOT) is developing the system. A pilot project for Tamil Nadu has already been developed for issue of CAP alert. The 2nd Steering

Committee meeting was held on 13.10.2020 wherein discussion took place about the way forward for covering the entire country. The Committee also deliberated on the Technical and Financial Proposal of C-DOT for the PAN India expansion of CAP project. The meeting was attended by Member(RM), CWC; Director and Deputy Director of FFM Directorate, CWC. Deputy Director(HM), FFM Dte. is the nodal contact person for the project representing CWC.

Flood Situation in the Country

Regular Flood Forecasting Activity commenced on 01.05.2020 in Brahmaputra and Barak basins. During the period from 1st May to 31st October 2020, 11290 flood forecasts (8180 Level and 3110 Inflow) were issued out of which 10826 (8075 Level and 2751 Inflow) forecasts were within limit of accuracy with a percentage accuracy of 95.89%. 183 nos. of Orange Bulletin (for severe flood situation) and 113 number of Red Bulletin for Extreme Flood Situation were issued in the month of October from Central Flood Control Room.

Summary of Flood Situation during 01.05.2020 to 31.10.2020

Extreme Flood Situation

Seven FF station observed Extreme Flood Situation.

Sl. No.	State	District	River	Station
1.	Assam	Sivasagar	Dikhow	Sivasagar
2.	Bihar	Gopalganj	Gandak	Dumariaghat
3.		Muzzafarpur	Gandak	Rewaghat
4.		Samastipur	Burhi Gandak	Rosera
5.	Odisha	Balasore	Subamarekha	Mathani Road Bridge
6.	Andhra Pradesh	East Godavari	Godavari	Chinturu
7.	Karnataka	Gulbarga	Bhima	Deongaon Bridge

36 Flood Monitoring Stations observed Extreme Flood Situation.

Severe Flood Situation for FF Stations

88 FF Stations observed Severe Flood Situation in the States of Arunachal Pradesh, Assam, Bihar, Odisha, Uttar Pradesh, West Bengal, Jharkhand, Madhya Pradesh, Maharashtra, Rajasthan, Uttarakhand, Andhra Pradesh, Telangana, Kerala, Chhattisgarh and Gujarat.

Above Normal Flood Situation

33 FF Stations in Assam, Bihar, Uttar Pradesh, Gujarat, Rajasthan, Andhra Pradesh, Jharkhand, Odisha, Telangana, Uttarakhand, Karnataka and West Bengal observed Above Normal Flood Situation.

Fifth Consultation meeting regarding revision of National Water Policy

In view of the latest issues in water sector, revision of the NWP (2012) has been envisaged by Ministry of Jal Shakti and a Drafting Committee was constituted by Ministry of Jal Shakti, Government of India in 2019 under the chairmanship of Dr. Mihir Shah, Former Member, Planning Commission.

The Drafting Committee submitted the first draft of National Water Policy on 17.08.2020. It was decided in the eighth meeting of Drafting Committee of National Water Policy to have consultations from different Organisations within Ministry of Jal Shakti and from other Ministries. Consequently, five consultation meetings were held with the

Organisations of the Ministry of Jal Shakti and other Ministries.

The Fifth Consultation meeting was held on 09.10.2020 in which Central Water Commission, National Mission for Clean Ganga, Inland Waterways Authority of India and Commissioners from Ministry of Jal Shakti presented their views/ comments on the first draft of National Water Policy. Shri R. K. Jain, Chairman, CWC and Dr. R. K. Gupta, Member(D&R), CWC presented the views of CWC on the draft NWP (2020). Shri S. K. Halder, Member(WP&P), CWC and Shri R. K. Sinha, Member (RM), CWC were also present during the consultation meeting.

National Webinar on "Enhancement of Irrigation Water Use Efficiency for Future Food Security"

A National Webinar on "Enhancement of Irrigation Water Use Efficiency for Future Food Security" was jointly organized by Indian Water Resources Society (IWRS) and Department of Water Resources Development &

Management, IIT Roorkee on 14.10.2020. Full programme can be accessed from following link:

<https://www.facebook.com/IITRoorkee.ICC/videos/1575004572699765/>

Reservoirs having Inflow above threshold limit

86 reservoirs received inflows above their threshold limit in West Bengal, Chhattisgarh, Andhra Pradesh, Bihar, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Tamil Nadu, Telangana, Rajasthan, Uttar Pradesh and Uttarakhand.



Preparatory Activities for 7th India Water Week (IWW)

Conceptualized and organized for the first time in 2012, the India Water Week is a regular forum where the Ministry of Jal Shakti, Government of India discusses, talks, strategizes with eminent stakeholders through seminars, exhibitions and sessions to build public awareness, to get support to implement key strategies for conservation, preservation and optimum use of available water.

So far the event was hosted for six times, the last being in 2019. Action has already been initiated for the hosting the 7th IWW in year 2021. An Organizing Committee under the Chairmanship of Secretary, DoWR, RD&GR and a Scientific Committee under the Chairmanship of Chairman, CWC have been constituted. The first meeting of Scientific Committee was held on 23.09.2020 wherein discussions were held for finalising the theme and sub-themes, tentative event Planner, Schedule, Partnership with International Organisations etc. Scientific Committee also discussed about BRICS Water Forum and BRICS Water Ministers' Conference being

proposed in year 2021 along with 7th IWW.

Subsequently, the 1st Meeting of Organising Committee was held under the Chairmanship of Shri U. P. Singh, Secretary, DoWR, RD&GR, Ministry of Jal Shakti on 28.10.2020 through video conference. Recommendations of the Scientific Committee were placed before the Organising Committee for consideration and taking appropriate decisions. Some of the decisions taken in the meeting are summarized as under.

- Theme for 7th IWW- Water Security for Sustainable Development with equity
- Venue- Vigyan Bhawan, New Delhi
- Exhibition Venue - Indira Gandhi National Centre for Arts (IGNCA), New Delhi
- Duration- 16-20th November, 2021 (Tuesday to Saturday)

Meeting of Working Group For Preparation of Standardization Strategic Road Map of Water Resources Division Council (WRDC)

The CMDD(E&NE) Directorate, CWC is involved in development of Strategic Road Map of Water Resources Division Council (WRDC) of BIS. It is a document which would reflect its vision of national standardization in its area of work and provide a broad standardization roadmap with a five-year perspective.

In this regard, a meeting was attended by Shri Vivek Tripathi, Director (CMDD), CWC on 06.10.2020 through Video Conferencing. The Working Groups undertook works related to identifying the broad subject areas of priority to be taken up for standardization work for Five Years and to define strategies to be adopted by Sectional Committees and Division Council. Along with this, the working Group took into account of the projects which are already identified under Standards National Action Plan (SNAP) & National Priorities and Standardization Gaps.

Ayodhya Barrage

The Ayodhya Barrage is proposed on River Saryu (Ghaghara) at Ayodhya in Uttar Pradesh. The bed elevation of the river at proposed barrage axis is about 85m. The barrage site is very close to Ayodhya G&D site of Central Water Commission where a long-term discharge data of the river is available. Ghaghara is a perennial trans-boundary river originating on the Tibetan plateau near Lake Mansarovar at an elevation of about 3962 m above MSL. The river traverses through Nepal and joins the Sharda River at Brahmaghat in India. The river is also known as Karnali in Nepal. The river traverses a distance of about 1080 km before joining river Ganga at Revelganj in Bihar.

Water availability study for the barrage has been carried out by CWC and sent to the Project Authority.

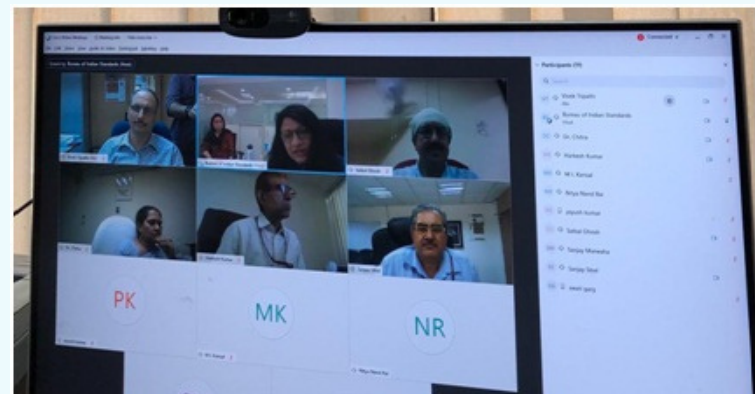
Reservoir Monitoring

CWC is monitoring live storage status of 123 reservoirs of the country on weekly basis and is issuing weekly bulletin on every Thursday. Out of these reservoirs, 43 reservoirs have hydropower benefit with installed capacity of more than 60 MW. The total live storage capacity of these 123 reservoirs is 171.091 BCM which is about 66.36% of the live storage capacity of 257.812 BCM which is estimated to have been created in the country.

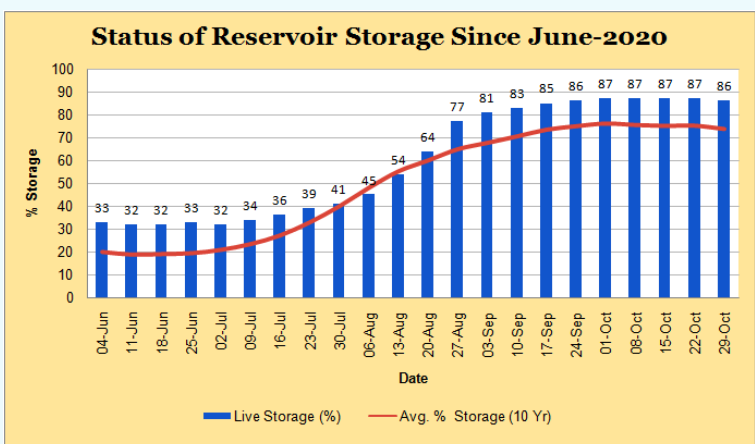
As per reservoir storage bulletin dated 29.10.2020, live storage available in these reservoirs is 147.714 BCM which is 86% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 153.535 BCM and the average of last 10 years live storage was 125.881 BCM. Thus, the live storage available in 123 reservoirs as per the bulletin dated 29.10.2020 is 96% of the live storage of corresponding period of last year and 117% of storage of average of last ten years.

Meeting through VC for acceptance of report of Committee constituted for formulation of strategy for flood management works in entire country and river management activities and works related to border areas (2020-23)

Meeting through VC was held under the Chairmanship of Vice-Chairman (NITI Aayog) on 19.10.2020 in NITI Aayog. From CWC, Member(RM), CWC; Chief Engineer(FMO), CWC and Director(FMP), CWC participated in the meeting. During the meeting, the report on "Committee constituted for



Shri N. N. Rai, Director Hydrology (South), visited the proposed Ayodhya Barrage Project site along with the Executive Engineer and other officials of Irrigation Department, Government of Uttar Pradesh on 31-10-2020 in connection to the hydrological studies for the proposed Barrage Project.



formulation of strategy for flood management works in entire country and river management activities and works related to border areas' was discussed & various suggestions were given by the participants for inclusion in the report of NITI Aayog.

67th Meeting of Standing Committee of Brahmaputra Board

The Standing Committee of Brahmaputra is constituted by Government of India with Chairman/Vice-Chairman as Chairman and Member(RM), Central Water Commission, Secretary Water Resources, Government of Assam, Financial Adviser, Brahmaputra Board as Member and General Manager, Brahmaputra Board as Member Convener to examine the Annual Action Plan / Budget Allocation, decide priority of works and exercise the financial power and delegate financial powers.

67th meeting of the Standing Committee of Brahmaputra Board was held on 16.10.2020 through video conferencing under the Chairmanship of the

IMCT Visit

Various Inter-Ministerial Central Teams (IMCT) have been constituted by Ministry of Home Affairs (MHA) for an on-the-spot assessment of the situation in the wake of the flood/landslide during Monsoon-2020. CWC Officers were nominated to represent DoWR, RD&GR, Ministry of Jal Shakti in these IMCTs.

They had meetings with District Officials and visited the affected districts for assessing the damage. Their visit details are summarized as under.

Sl. No.	State	Duration of Visit	Officer representing MoJS	Visited Districts
1	Sikkim	05th-09th October	Shri Shiva Prakash, Superintending Engineer, CWC, Gangtok	East Sikkim, West Sikkim, North Sikkim, South Sikkim
2	Telangana	22nd-23rd October	Shri M. Raghuram, Superintending Engineer, CWC, Hyderabad	Siddipet, Yadadri Bhuvanagiri, Hyderabad, Ranga Reddy



Chairman, Brahmaputra Board.

The following Agenda points were discussed during the meeting:

- Organising Brahmaputra Aamantran Abhiyan' - a River Rafting Expedition
- Implementation of eOffice in Brahmaputra Board
- Estimate for Good Water Management Practices in N.E. India for better Basin Management -A pilot Project under Regional Office at Itanagar
- Public Financial Management System (PFMS)
- Preparation of DPR for Mikirgaon Area Anti Erosion Project in River Brahmaputra



Shri G. L. Bansal, Director, CWC, Agra nominated as Member of Inter-Ministerial Central Team (IMCT) for Uttar Pradesh for assessment of loss in the wake of hailstorm during the month of March 2020. He has visited Chitrakoot and Mirzapur districts (Uttar Pradesh) from 12-16th October, 2020 along with other team members for assessment of loss in the wake of a hailstorm and attended a briefing meeting with Hon'ble Chief Minister of Uttar Pradesh on 16.10.2020 at Lucknow.



TreadTalks Webinar- Future Pathways for Federal Governance of India's Water Resources, Speaker- Dr. B. R. K. Pillai, Commissioner, Ministry of Jal Shakti

The CPR-CWC Dialogue Forum organised its 9th talk in their series of TREADTalks on 21.10.2020. It was titled, 'Future Pathways for Federal Governance of India's Water Resources' and delivered by Dr. B. Ravi Kumar Pillai, Commissioner (Command Area Development), DoWR, RD&GR, Ministry of Jal Shakti, Government of India. Addressing the impending need to shift towards a more strategic management of water resources, the talk engaged conceptually with the federal approach towards structural reforms in the sector, focusing on the management of deficits and surpluses for sustainable development of water resources.

In his talk, Dr. Pillai proposed structural reforms in the sector that rested on revamping the basic algorithm of planned development, creating area-based data systems, restructuring States' own institutions and integrated river basin evaluations. He emphasized that this would enable public policy practitioners to pursue a coherent federal response to future challenges of water governance. The ensuing discussions involved a detailed look at the ways in which these reforms could be operationalised



amongst prevailing challenges for federal water governance. Above talk can be accessed from following link:

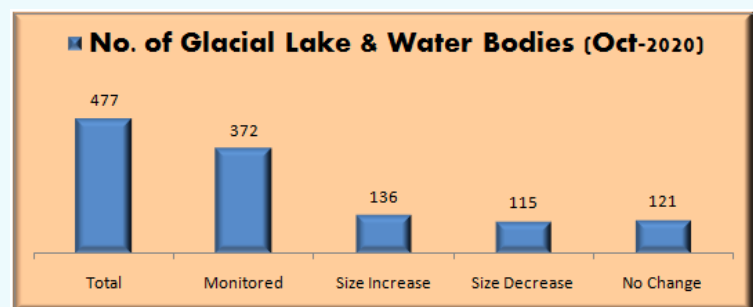
https://www.youtube.com/watch?v=tYxny_BWT3I

The TREADTalks series is a part of a collaborative effort of Centre for Policy Research and Central Water Commission, New Delhi.

Glacial Lake Monitoring

Every year during June to October, CWC monitors the size of Glacial Lakes (GL) & Water Bodies (WB) that are larger than 50 ha in the Himalayan region using satellite data. These were digitised in the year 2009 and their current sizes are analyzed with respect to size in the year 2009. The number of GL & WB monitored vary due to availability of cloud-free data. Summary of their size variation in Oct-2020 has been highlighted in the adjacent charts. Full report can be accessed from the following URL:

<http://www.cwc.gov.in/sites/default/files/monitoring-glacial-lakes-water-bodies-himalayan-region-indian-river-bodies-oct-2020.pdf>



Data Corner-STATUS OF H. E. POTENTIAL DEVELOPMENT - BASINWISE

(In terms of Installed Capacity above 25 MW)

(as on 30.09.2020)

BASIN	Identified capacity as per assessment study		Capacity Under Operation		Capacity under construction		Capacity under operation + under construction		Capacity yet to be taken up under Construction	
	Total	Above 25 MW								
	(MW)	(MW)	(MW)	(%)	(MW)	(%)	(MW)	(%)	(MW)	(%)
Indus	33832	33028	14294.3	43.28	4735.5	14.34	19029.8	57.62	13998.2	42.38
Ganga	20711	20252	5317.2	26.26	1645.0	8.12	6962.2	34.38	13289.6	65.62
Central Indian Rivers	4152	3868	3147.5	81.37	400.0	10.34	3547.5	91.71	320.5	8.29
West Flowing Rivers	9430	8997	5631.7	62.60	100.0	1.11	5731.7	63.71	3265.3	36.29
East Flowing Rivers	14511	13775	8249.0	59.88	960.0	6.97	9209.0	66.85	4566.0	33.15
Brahmaputra Basin	66065	65400	4274.00	6.54	3553.0	5.43	7827.0	11.97	57573.0	88.03
All India	148701	145320	40913.6	28.15	11393.5	7.84	52307.1	35.99	93012.9	64.01

Note:-

1. Does not include pumped storage schemes

2. In some states the total of the capacity developed and balance capacity is different from the potential assessed. This is due to change in capacity of the schemes, addition/ deletion of the schemes and merger of two schemes into one etc.

3. In addition to above 9 PSS (4785.6 MW) are under operation, 3 PSS (1580 MW) are under construction and 1 PSS (1000 MW) is Concurred by CEA, 1 PSS (1200 MW) is under examination in CEA and 8 PSS (7530MW) are under S&I and 1 PSS of I.C. 660 MW is under Held up list.

Source:CEA

International Certificate Course on Micro Irrigation System




International Certificate Course on Micro Irrigation Systems

E-LEARNING




A collaboration has been developed with International Commission on Irrigation and Drainage (ICID) and first joint on-line International Certificate Course on "Micro Irrigation Systems" has been launched by National Water Academy, CWC with other Industrial Partners. The course was started on 07.10.2020 wherein 180 participants are undergoing training (Indian – 79 and International 101 numbers). The target beneficiaries are professionals working in the area of Agricultural Water Management (AWM) and students in the academic programs oriented towards broader aspects of AWM.

The course is designed with an inherent flexibility to suit the learning needs of prospective trainee through 3 main modules on MIS, namely:

- Agronomic Aspects
- Engineering Aspects

Virtual tour of under-construction building of CWC/GFCC at Patna

The Chairman, CWC along with Member(RM), CWC made a virtual tour of the office building of CWC/GFCC under construction at Adalatganj, Patna

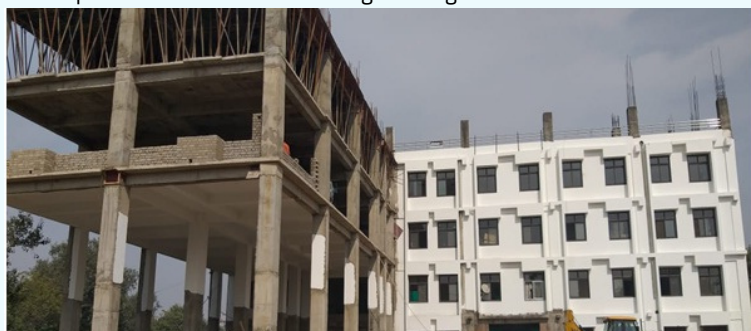


Management Aspects

Participants are undergoing intensive learning exercise through 35 online sessions comprising audio-video lectures, webinars, assignments, quizzes, hands-on activities and face-to-face online interactions with the course faculty to earn an international certificate that will add value to their professional credentials.

The course is being delivered through a Moodle platform - an open source learning management system designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environments. The online course include reading material, pre-recorded lectures, videos, presentations, interactions, discussions, webinars etc. is available at URL: <https://icid.moodlecourse.com/>

on 20.10.2020. The SE(C), LGBO made arrangements for the live view of all the portions of the office Building starting from front view.



Financial Progress of Various Schemes/Components pertaining to CWC- up to October 2020

(Rs Crore)

Sl. No.	Scheme/Component Name	BE 2020-21	Expenditure	Expenditure (in %)
1	Development of Water Resources information System (DWRIS)	140.00	57.239	40.885%
2	Investigation of Water Resources Development Schemes (IWRD)	12.00	4.493	37.44%
3	Flood Management & Border Areas Programme (FMBAP)	23.910	5.439	22.75%
4	Infrastructure Development (ID) Schemes	20.200	0.060	0.297%
5	National Hydrology Project	14.6225	2.7897	19.08%
6	Dam Rehabilitation and Improvement Project	18.46	9.02	48.86%

Training Programmes Organized by NWA, Pune

No.	Name of the Program	Duration	Target Group	Number of participants	Duration	Status
1	Training-cum-Workshop on Overview of Water Resources Sector in India through Distance Learning for Media Professionals	05-09 th October 2020	Mass Awareness Program for Media Professionals	35	1 Week	Completed
2	International Certificate Course on Micro Irrigation	Commenced from 07.10.2020	International Participants nominated by ICID & Nominates invited by NWA	180	3 Months	On-going
3	Purpose Oriented Training through Distance Learning on Flood Forecasting and MIKE Modelling	05-16 th October 2020	For its own Ministry/ Department.	100	2 Weeks	Completed
4	Mandatory Cadre Training Program for Junior Engineer, CWC (Batch-2)	05-30 th October 2020	For Junior Engineers of CWC	40	4 Weeks	Completed
5	Purpose Oriented Training through Distance Learning on E-Governance Tools	12-16 th October 2020	For its own Ministry/ Department.	120	1 Week	Completed
6	Mandatory Level 2 Training Program for Scientific Research Assistant (SRA) of CWC	19- 30 th October 2020	For its own Ministry/ Department.	16	2 Weeks	Completed
7	Mandatory Cadre training Programme for AD-II/SDE of CWC (Batch-2)	12 th October – 06 th November 2020	for AD-II/SDE of CWC	40	4 Weeks	On-going
8	Webinar 1 :Constitutional Provisions pertaining to Water Resources in India	19.10.2020	States, Central Organisations, including own Ministry etc	192	1 Day	Completed
9	Webinar 2 : Existing Central Laws & Enactment relating to Interstate River Water Disputes in India and Role of Central Water Commission (CWC)	26.10.2020	States, Central Organisations, including own Ministry etc	159	1 Day	Completed
10	Webinar3 : Overview of Existing and Proposed Water Legislation in India	29.10.2020	States, Central Organisations, including own Ministry etc	86	1 Day	Completed

NABL Accredited Water Quality Labs of CWC

Water quality is an important aspect of water resources assessment. CWC monitors water quality in rivers through its labs spread all over the country. These labs have various levels of facilities for testing the water samples. Level 1 labs are near to the observation site with elementary physical parameter testing. Higher level facilities are available at established labs where advanced equipments are available to determine physical, chemical and biological parameters including heavy metal/toxins. To assure the standard of the lab facilities, these labs are being accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL). During October, 2020 water quality lab of CWC at Jammu has received NABL accreditation in accordance with the standard ISO/IEC 17025:2005. Now, CWC has 13 NABL accredited Water Quality labs across India.



Water Sector News


- Rains, flood damage crop in 1,17,391 hectare in AP (The Hans, 01.10.2020)
- Hydropower proliferation imperils biodiversity in HP (The Pioneer, 03.10.2020)
- Centre vows support on Balaji Reservoir (Deccan Chronicle, 04.10.2020)
- In a first, dolphin safaris launched at 6 places in Ganga across 3 states (The Times of India, 06.10.2020)
- Water levels of major rivers rising in Hailakandi district (Assam Tribune, 07.10.2020)
- Goa leads the way in supplying piped water to villagers (Navhind Times, 10.10.2020)
- Chennai all set to get full quota of Krishna water (The Hindu, 11.10.2020)
- Himayatsagar upstream full, Musi may flood (Deccan Chronicle, 13.10.2020)
- Water levels on rise in projects across TS (Telangana Today, 14.10.2020)
- TS rain damage Rs.5,000 crore (Deccan Chronicle, 16.10.2020)
- India 2nd worst-hit by floods after China : UN (Times of India, 17.10.2020)
- 'Lost' river that ran through Thar Desert 172,000 years ago found (Millennium Post, 22.10.2020)
- First-of-its-kind flash flood warning system for South Asian countries launched (The Pioneer, 24.10.2020)
- CWC to study sediment deposition in reservoirs (The Tribune, 25.10.2020)

Webinar on "Interstate River Water Disputes in India"

Webinar series on "Interstate River Water Disputes in India" has been conceptualized by NWA, Pune for understanding of water disputes and processes involved in the case of different types of disputes and to build capacities of all stakeholders to effectively contribute in resolving water conflict in their working capacities. The webinar series commenced on 19.10.2020. The detailed schedule of Webinar is given as below.

Date	Topic of Webinar/Video Link
19.10.2020	Constitutional Provisions pertaining to Water Resources in India https://youtu.be/mRiNmZ0RZuo
26.10.2020	Existing Central Laws & Enactment relating to Interstate River Water Disputes in India and Role of Central Water Commission (CWC) https://youtu.be/rIXpf3g2ErU
29.10.2020	Overview of Existing and Proposed Water Legislation in India https://youtu.be/ChO1_vwL98o
02.11.2020	National Water Policy
09.11.2020	Interstate River Water Dispute Tribunals
18.11.2020	International River Water Sharing Doctrine / Principles adaptable to Interstate River Water Disputes
23.11.2020	Interstate River Water Disputes in India – Challenges : Godavari Water Dispute – a case study
01.12.2020	Interstate River Water Disputes in India – Challenges Krishna Water Dispute – I – a case study
07.12.2020	Interstate River Water Disputes in India – Challenges Krishna Water Dispute – II – a case study
14.12.2020	Interstate River Water Disputes in India – Challenges Narmada Water Dispute – a case study
21.12.2020	Interstate River Water Disputes in India – Challenges Ravi & Beas Water Dispute – a case study
28.12.2020	Interstate River Water Disputes in India – Challenges Cauvery Water Dispute – a case study
04.01.2021	Interstate River Water Disputes in India – Challenges Vamsadhara Water Dispute – a case study
11.01.2021	Interstate River Water Disputes in India – Challenges Mahadayi Water Dispute – a case study
18.01.2021	Recourse to Stakeholders Framework for Understanding and Resolution of Interstate River Water Disputes
25.01.2021	Agreements for Sharing for Waters
01.02.2021	Interstate River Water Dispute and Water Governance – issues and challenges
08.02.2021	Challenges of Inter-States issues in Inter Linking of River Projects

Upcoming Event- National Online Quiz Competition on "Water"



GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
CENTRAL WATER COMMISSION

National Online Quiz Competition on "WATER"
National Water Academy, Pune

INTRODUCTION
National Water Academy is a "Center of Excellence" in training and capacity building of water resources professionals in India. NWA is undertaking mass awareness programs, throughout the nation on water related information/issues for all stakeholders.

PARTICIPATION
The Quiz will be held through Google forms, on 10th January 2021 at 10:00 Hrs. Link for the Quiz will be sent to the participants on their registered email IDs. Process for registration is given below. List of participating students will be displayed on NWA website on 08th Jan. 2021 at 16:00 Hrs.

Eligibility: VIIth and VIIIth Standard students.
Format: 30 multiple choice questions in 30 minutes. No negative marking.
Hints: "Know your Water" App on Google Play Store. Click the link shorturl.at/bhF34

CONTACT
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E-mail: nwa.mah@nic.in
Website: <http://nwa.mah.nic.in>

REGISTRATION
Click the link or scan QR code and fill the online google form.
<https://forms.gle/MWs7Ri32FuTKgn5a9>

E-Certificate of participation: to all the participants on their registered email IDs.

There is no Registration fee.
National Water Academy, Central Water Commission, Pune, 411024, Maharashtra

Publication: Flood Forecasting and Warning Network Appraisal Report-2019

Central Water Commission had started Flood Forecasting & Warning services in India in November 1958 by setting up one forecasting station at Old Delhi Bridge for the national capital on the river Yamuna. Its network of Flood Forecasting and Warning Stations gradually extended throughout the country covering almost all the major inter-state flood prone river basins. Every year, Flood Forecasting and Warning Network Appraisal Report is brought out to assess the performance of Flood Forecasts issued by CWC and other associated aspects.

During 2019, the flood forecasting services were expanded to 325 stations which comprised of 197 level and 128 inflow forecast stations in 20 major river basins. It covered 22 States besides Union Territories of NCT Delhi, Jammu and Kashmir and Daman & Diu. The flood forecasting activities of the Commission are being performed every year from May to December through its 29 field Divisions which issue flood forecasts and warnings to the civil authorities of the States as well as to other organizations of the Central & State Governments, as and when the river water level touches or is expected to cross the warning level at the level flood forecasting stations. During Flood Season 2019, level forecasts were issued for 145 stations out of 197 stations and inflow forecasts were issued for 75 reservoir/dam/barrages out of 128 inflow stations. The inflow forecasts are formulated whenever the inflow into the reservoirs exceeds the threshold value fixed by the respective project authorities for reservoir regulation as well as flood moderation.

During the year 2019 flood season, 4 Flood Forecast stations observed Extreme Flood situation. Severe Flood situation was witnessed in 98 Flood Forecasting Stations and 41 Flood forecast stations witnessed Above Normal Flood Situation. Out of the 128 reservoirs in the network, inflow forecasts were issued for 75 reservoirs. The major flood events this



year was the Extreme Floods in Brahmaputra in Assam, Kamala Balan in Bihar, and Godavari & Krishna in Maharashtra.

During the year 2019, 9754 forecasts were issued out of which 8451 forecasts (86.64%) were found to be within the limits of accuracy. The number of level forecasts issued during the year 2019 were 6004 out of which 5773 (96.15%) was within the limit of accuracy of ± 0.15 m. The number of inflow forecasts issued were 3750 out of which 2678 (71.41%) was within limits of accuracy of $\pm 20\%$. Daily Flood Situation Reports cum Advisories (DFSITREPCa) based on 5-day rainfall warning of IMD were issued on daily basis. Advisories about Extreme floods in Assam, Bihar and Maharashtra were issued in DFSITREPCa for taking up relief and rescue operations in advance which were well appreciated by the beneficiaries at both National and State Levels.

Flood Forecasting and Warning Network Appraisal Report-2019 can be accessed from the following link.

<http://cwc.gov.in/sites/default/files/ffwnpr-2019.pdf>

Gallery



Discharge Observation at Ashti HO site on Wainganga River



Discharge Observation at Sangkalang Site, North Sikkim



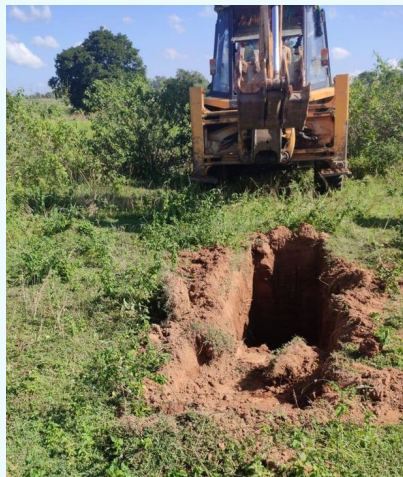
Rashtriya Ekta Divas pledge taken in NEID-II, CWC, Aizwal



CWC team on job in difficult terrain of Ladakh for connecting the sites with GTS bench mark.



The ADCP demonstrated at Baltara GDSQ Site on Kosi River



Soil samples are being collected for project under investigation in state of Jharkhand



Monitoring Visit of Surface Minor Irrigation (SMI) Schemes (Ludera Khul and Dhan Khul) in Jammu. Funding support for these is being provided by Govt. of India under PMKSY-HKPP Component.



Drilling work in progress for projects in Jharkhand under Survey and Investigation



Mompani, Lohit river, Arunachal Pradesh

Around the States

The Government of Jammu and Kashmir Union Territory has appointed Shri Ghanshyam Jha as Chairperson of the Jammu and Kashmir Water

Obituary

The officers and staff of the Central Water Commission have very fond memories of working with Shri R. C. Jha, former Chairman, CWC and were very much shocked to know about his untimely demise on 24.10.2020. A condolence meeting was held on 26.10.2020 at CWC-HQ to pay homage to the departed soul. A large number of officers and staff of CWC participated in the same.

It was remembered that Er. Jha joined Central Water Engineering Group – A Services on 19.07.1975 and headed various important organizations namely CWC, GFCC and NWDA. In the early part of his career, he excelled in Gates/Hydro-Mechanical Design. During 2001-2005, for a period of about 5 years he discharged his duties as Chief Engineer(PAO), CWC which is one of the most important organizations of CWC responsible for appraisal and clearance of various water resources projects in the country. He served as Member(River Management), CWC for more than three years during 12.02.2008 to 31.08.2011. He constantly emphasized on innovation and newer avenues. He gave important direction to CWC in collecting data related to coastal processes and under his leadership, ADB aided Sustainable Coastal Management and Investment Programme could be accorded requisite clearance.

His tenure as Chairman, CWC spanned for about 11 months up to July, 2012. A landmark milestone namely India-Water Resources Information

Resources Regulatory Authority. Shri Jha was the former Chairman of Central Water Commission and Ganga Flood Control Commission.



Shri R. C. Jha

(02-JUL-1952 TO 24-OCT-2020)

Former Chairman, CWC

(01-SEP-2011 to 31-JUL-2012)

System (WRIS) was unveiled by him during this period. He also worked as President of Indian Water Resources Society (IWRS). Even after retirement, he continued to contribute professionally to WAPCOS in the capacity of Independent Director and World Bank aided Dam Rehabilitation and Improvement Project (DRIP) of Govt. of India as a Hydro-mechanical Expert.

Er. Jha was an exceptionally soft-spoken and kind-hearted personality who helped many in need and was always available to employees at all

levels. He left an indelible mark in the organization in personal as well as professional capacity, whose imprints can be felt by one and all. His departure has left us all very sad and this Organization offers heart-felt condolences and deepest sympathy to the bereaved family. We pray to the Almighty to grant eternal peace to the noble soul and to give strength & courage to the bereaved family to bear the irreparable loss.

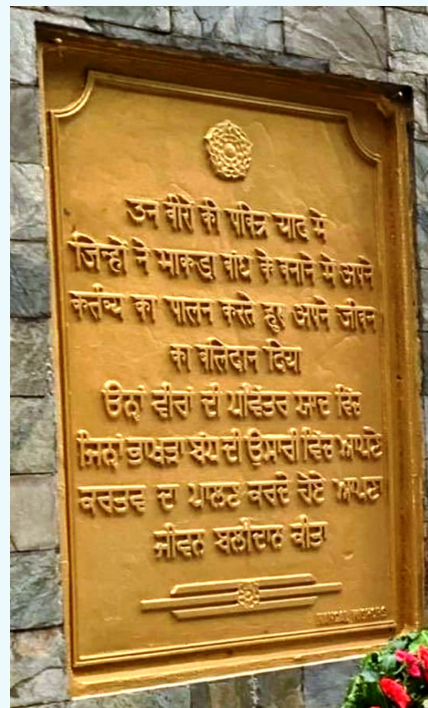
History- Bhakra Dedication Day 22.10.1963

The Bhakra Dam, one of the highest hydraulic structures of its kind in the world, had been completed after years of careful investigations, planning and execution. Fittingly, the scheme was formally inaugurated by the then Prime Minister Pt. Nehru on 23.10.1963 who was a source of constant inspiration and encouragement behind this stupendous national effort. Such a culmination was a matter of deep satisfaction not only to Punjab, where the project is located but to the country as a whole since the fruits of Bhakra, in one way or another were to be shared by all.

The Bhakra Dam has a premier place among the projects of India. Apart from its unprecedented size, cost and benefits, genesis, growth of project concept, the complex factors that surrounded its birth and the abnormal difficulties that arose and resolved during the course of execution, sets off Bhakra as a unique project in the annals of technology.

Although, broadly conceived early in the century, it was the partition of India that gave urgency and sharp reality to the hopes and possibilities for a high dam in the narrow gorge at Bhakra and a vast storage of the Sutlej behind it. Millions of Indians uprooted from West Pakistan, hardy and skilled agriculturists, suddenly found themselves deprived of their means of livelihood. While sufficient land was available, water was lacking for sound and productive agriculture. While thousands of displaced craftsmen were ready to undertake industries, adequate power was not available. Storage of the Sutlej waters offered an immediate, if not the only, solution for the vast human problem being faced by the new State of East Punjab and the newly independent India. The challenge was accepted and had been won.

The birth of the Bhakra Dam is therefore, inextricably associated with the birth of new India and it would be reasonable to hope that the successful completion of Bhakra is symbolic of aspiration and achievements of the country.



feat of engineering.

The investigations, the design and techniques of excavating and laying an inordinately deep foundation in the difficult soil of the Sutlej river bed have been, in many aspects, a positive contribution to present-day methods of dam construction. The bold decision to construct the immense structure and the entire project departmentally, in spite of the growing and intricate problems of personnel and Organisation, with practically all the initiative and responsibility in Indian hands is an exemplary attempt in the annals of project engineering in India. Credit, in no small degree, is also due to the willing and valuable contribution made by the foreign consultants and construction men who gave their unstinted best to this

On this day of celebration, we pay our homage to the makers of this project, from the smallest to the highest, named and unnamed, known and unknown, who have all contributed to this magnificent achievement of which any nation can just feel proud of.



Central Water Commission

An attached office of Dept. of Water Resources,
River Development and Ganga Rejuvenation,
Ministry of Jal Shakti, Govt. of India

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