



Shri Kushvinder Vohra
Chairman, CWC

Message

I am pleased to share some significant developments and initiatives that have taken place recently within the realm of water resource management and infrastructure in India.

Firstly, I would like to highlight the formation of the High Powered Review Board overseeing the Brahmaputra Board, which is chaired by the Union Minister of Water Resources. This board includes esteemed members such as Chief Ministers of Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura, as well as Union Ministers and members from various departments. The High Powered Review Board, established in 1982 and amended in 1992, convened its 12th meeting on 01.05.2023, in Guwahati. This meeting was a significant step in addressing the water-related challenges in the region and promoting collaborative efforts for sustainable development.

On 09.05.2023, a CWC team led by me engaged in productive discussions with officials from Jammu & Kashmir. These discussions aimed at

enhancing CWC's initiatives in the region, brief our ongoing activities, and exploring new avenues for cooperation in water resource management. It was heartening to see J&K express a keen interest in technical collaboration and capacity building support from CWC. As a result, plans are underway to establish a collaborative mechanism to address specific water-related concerns in the region.

Moving on, it's important to mention the uses of water by India as per Indus Waters Treaty 1960. India is utilizing its allocated water resources through various dams, including Bhakra on Sutlej, Ranjit Sagar on Ravi, and Pong and Pandoh on Beas.

A Central Water Commission report identified potential unutilized water flowing into Pakistan from Eastern rivers, leading to the consideration of the Second Ravi Beas Link Project, which aims to harness this water for irrigation. The project is currently in the Pre-Feasibility Report (PFR) stage, exploring the gravity-based system to utilize. We recently held discussions on this project during a meeting on 16.05.2023, marking a significant step toward realizing its potential benefits.

Lastly, I am proud to announce a new milestone in the enactment of the Dam Safety Act 2021.

A Memorandum of Understanding (MoU) was signed between the National Dam Safety Authority (NDSA) and MNIT Jaipur for the establishment of the "National Centre for Earthquake Safety of Dams." This important initiative, which took place on 22.05.2023 at MNIT, Jaipur, in the presence of the Hon'ble Minister of Jal Shakti, exemplifies our commitment to enhancing dam safety and earthquake preparedness.

In conclusion, these developments reflect our dedication towards responsible water resource management, infrastructure development, and collaborative efforts to address the unique challenges of each region. I am confident that our collective efforts will lead to more sustainable and equitable water resource management practices in India.

D. Vohra



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- Meeting Regarding Project
- Customized Training Program on 'Dam Safety Aspects-An Overview' under DRIP Phase II
- History- A Blueprint on Obra Dam

MEETINGS

The 12th Meeting of High Powered Review Board of Brahmaputra Board

The 12th High Powered Review Board of Brahmaputra Board was held on 01.05.2023 at Guwahati under the Chairmanship of Hon'ble Minister of Jal Shakti. The meeting was attended by Chairman, CWC & other officials along with various members and invitees from central government and state governments. During meeting, New Initiatives, Survey and Investigation & preparation of Detailed Project Report of Multipurpose Projects and preparation of Master Plans were discussed. Inauguration of Documentation of Brahmaputra Aamantran also was discussed.



First meeting of the Steering Committee for conduct of 7th Minor Irrigation (MI) census, 2nd census of Water Bodies and proposed census of Major and Medium irrigation projects under Centrally Sponsored Scheme 'Irrigation Census'

Chairman, CWC attended the first meeting of the Steering Committee for conduct of 7th Minor Irrigation (MI) census, 2nd census of Water Bodies and proposed census of Major and Medium irrigation projects under Centrally Sponsored Scheme 'Irrigation Census' held under the chairmanship of Secretary, DoWR, RD & GR on 03.05.2023 at Shram Shakti Bhawan.

During the meeting, Chairman CWC suggested that the storage capacity of water bodies may be taken when it is at the maximum level in order to assess the optimal capacity of water body. It was also suggested that it will be better if water spread information can be recorded along with time. Secretary agreed to the suggestion that water spread area may be kept as mandatory in the schedule for 2nd census of water bodies. On the conduct of census of major and medium irrigation projects, Chairman informed that CWC shall provide the instruction manual, tabulation plans and concepts and definitions.

Special Secretary (WR) pointed out that Information, Education and Communication (IEC) strategies may be worked out for effective communication of results of census to the common civilian in an easy-to-understand manner. She further suggested that the State Water Informatics Centre may also be involved during the conduct of census in States/UTs. Director, NIC informed that the village level data of the census shall be made available on Open Government Data platform in a week's time.

Secretary advised that the data of 1st census of water bodies may also be disseminated on Gati Shakti portal. He suggested that a letter may be written to Chief Secretaries of States referring to the salient features highlighted by the first census of water bodies, emphasizing the need for removal of encroachment of water bodies and revival of defunct water bodies in the State.

DDG, MI (Stat) Wing apprised that in the forthcoming census, geo tagging of MI structures shall also be done and the

entire census will be done in the digital mode. Secretary appreciated that the forthcoming censuses are planned in completely digital mode. He emphasized that efforts should be made to expedite the completion of census work in laggard States by means of special reviews. The result of States which can complete the census work well in time may be brought out within 02 years. Chairman, CWC attended the first meeting of the Steering Committee for conduct of 7th Minor Irrigation (MI) census, 2nd census of Water Bodies and proposed census of Major and Medium irrigation projects under Centrally Sponsored Scheme 'Irrigation Census' held under the chairmanship of Secretary, DoWR, RD & GR on 03.05.2023 at Shram Shakti Bhawan.

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Third Meeting of Technical Advisory Group of Ken Betwa Link Project Authority

Shri Goverdhan Prasad, Director, Hydrology(C) attended meeting of Technical Advisory Group of Ken Betwa Link Project Authority (TAG-KBLPA) held on 04.05.2023 at Sewa Bhawan under the Chairmanship of Shri D.P. Bhargava,

former Director, (Technical), NHPC. In the meeting, modifications in the tender documents of proposed Daudhan Dam on the basis of the decisions taken in the 2nd meeting of the TAG were discussed.

Interaction with officers of I&FC, JKSPDC, Govt of J&K

Shri Kushvinder Vohra, Chairman, CWC & Ex-officio Secretary to Govt. of India, along with the team of officers from CWC held an interaction with officers of I&FC, JKSPDC, Government of J&K on 09.05.2023 at Srinagar. The Government of J&K delegation was led by Shri Shaleen Kabra, Principal Secretary, Jal Shakti Department, Govt of J&K. The discussions focused on strengthening the existing activities of CWC in J&K, as well as exploring the possibility of new areas towards enhancing the cooperation in water resources.

CWC gave a brief presentation of activities being carried out by CWC in J&K, such as the institutional setup of CWC in J&K, activities like Hydro-meteorological observations & Flood Forecasting, Project Monitoring of PMKSY-AIBP, PMKSY-HKKP, PMKSY-CADWM and FMBAP Projects, Project Appraisal of irrigation & Flood control Projects, Dam Safety & Design Support, Survey & Investigation and preparation of DPRs of various projects. The UT of J&K was also sensitized



about carrying out the pre-monsoon inspections of Baglihar HEP. Chairman, CWC informed about the new areas, which CWC has recently ventured into, such as Extended Hydrological Prediction, Integrated Operation of Reservoirs, Inundation Mapping etc.

UT of J&K presented various activities being carried out by them in both the regions i.e Jammu & Kashmir. Status of irrigation development by way of Major, Medium and Minor irrigation projects under PMKSY-AIBP, PMKSY-HKKP and other sources, Flood protection works under FMBAP

including River management activities of border area (RMABA), overall water requirement for irrigation and water availability, etc were discussed.

Govt of J&K requested CWC for providing guidance to the UT by way of forging technical collaboration between CWC and Govt. of J&K, especially in the areas of Hydrology, Flood Forecasting, Design, Capacity building of officers of GoJK, identifying the measures to fulfil gap between Irrigation potential created and Irrigation potential utilized, assistance in the studies being conducted by JTRFP and other technical

aspects.

Chairman, CWC mentioned that necessary steps shall be taken towards formulation of suggested collaborative mechanism in order to better understand the issues through regular interaction between CWC and Government of Jammu & Kashmir, capacity building in various areas pertaining to Jammu & Kashmir, providing guidance to UT of J&K in the areas CWC has expertise, and jointly working on specific areas of concerns pointed out by Jammu & Kashmir.

DRIP-II & NDSA

Shri Sanjay Kumar Sibal, Member(D&R), CWC attended the meeting to discuss various issues related to Dam Rehabilitation and Improvement Project (DRIP), Phase-II and implementation of the Dam Safety Act and National Dam Safety Authority (NDSA) on 09.05.2023 at Shram Shakti Bhawan, New Delhi under the chairmanship of Secretary, DoWR, RD & GR. The officials from Ministry, CWC and World Bank also participated in the meeting.

The relevant points discussed in the meeting includes: Progress of Creation of National Level Data Base of all the specified dams, Status of MNIT Jaipur proposal for Setting up of Centre for Seismic Safety Evaluation of Dams, Preparation of Dam Safety Regulations as per DSA, 2021, Constitution of Sub-Committees of the NCDS, Creation of 5 posts of Members for NDSA, Status of Inspection of Dams (Pre-monsoon inspection of 2023) and follow-up actions after completion of one annual cycle of inspections for categories of dams for which NDSA is functioning as Dam

Safety Organization (DSO) and other State-owned Dams, Safety of non-specified dams, Implementation of DHARMA, Second Meeting of the National Committee on Dam Safety (NCDS), issues related to DRIP- II scheme including status of procurement of E&M Consultant, establishment of Centre of Excellence; Capacity building of State and Central Govt officials.

Moreover on 12.05.2023, he took a meeting with SDSOs of 11 states of Maharashtra, Madhya Pradesh, Odisha, Rajasthan, Gujarat, Chhattisgarh, Karnataka, Andhra Pradesh, Tamil Nadu, Telangana, Uttar Pradesh (having more than 100 Specified Dams) on the virtual platform. The concerned Regional Directors of NDSA, Member (Technical), Member (Regulations) and Member (Disaster and Resilience) also attended the meeting. The meeting was held to assess the status/progress on various issues under Dam Safety Act (DSA), 2021 as discussed during the meeting held on 11.04.2023.

Issues related to 'Problem of Siltation in DVC reservoirs and their Operation

Shri Sanjay Kumar Sibal, Member(D&R),CWC attended the meeting under the Chairmanship of Union Home Secretary regarding the Issue related to "Problem of siltation in DVC

reservoirs and their operation" raised in the 25th meeting of the Eastern Zonal Council (held at Kolkata on 17.12.2022) on 12.05.2023 in North Block.

Discussion on the Court Case Matter of Mullaperiyar Dam

A meeting under the chairmanship of Secretary DoWR, RD & GR was held to discuss the court case matter of Mullaperiyar dam in Hon'ble Supreme Court at Shram Shakti Bhawan, New Delhi on 16.05.2023. The meeting was

attended by Shri Sanjay Kumar Sibal, Member (D&R), CWC & Chairman, NDSA, and Shri Vijai Saran, Chief Engineer (DSO), CWC & Chairman, Supervisory Committee on Mullaperiyar dam and other officers of DoWR, RD & GR and CWC.

Second Ravi-Beas Link project

Government of India approved a scheme of National Projects for implementation during XI Plan with a view to expedite completion of identified National Projects for the benefit of the people. National projects are provided financial assistance for cost of irrigation & drinking water component in the form of central grant.

2nd Ravi Beas Link Project is at Pre-Feasibility Report (PFR)



stage. Feasibility is being explored to harness water flowing across border (about 0.58 MAF) in non-monsoon period under gravity by link between Ravi and Beas/Sutlej.

Shri Kushvinder Vohra, Chairman, CWC and Ex-Officio Secretary to Govt of India took another meeting on 16.05.2023 in CWC (HQ), New Delhi to discuss progress of Pre-Feasibility Report (PFR) of Second Ravi Beas Link Project on various options discussed during the last meeting held on 16.03.2023.

The meeting was attended by Member, (WP&P), CWC, officers of WRD, Govt. of Punjab (GoP), Officers from Central

Water Commission and other concerned organizations. During the meeting, detailed discussions were held on the revised PFR submitted by WRD, Govt. of Punjab.

During the meeting, Chairman, CWC pointed out various changes required to be made in PFR and directed Officials from WRD, Govt. of Punjab to submit modified PFR within a week duly excluding non-admissible cost of the drinking water & wells components of groundwater recharge and to provide brief details including land acquisition, R&R, benefits etc. of all various options mentioned in the PFR.

Issue of Less Availability of Water from Nohar Feeder and Baruwali Distributaries to Rajasthan

Shri Kushvinder Vohra, Chairman, Central Water Commission & Ex-officio Secretary, Govt. of India took a meeting on 17.05.2023 through video conference/virtual mode with the Water Resources/Irrigation Department authorities of the States of Rajasthan & Haryana and BBMB to review the progress made on the decisions taken during the earlier meeting held on 15.03.2023 regarding the issue of less availability of water from Nohar Feeder and Baruwali Distributary to Rajasthan.

Based on the deliberations held during the meeting, the following decisions were taken:

- WRD, Rajasthan shall finalize the PFR in consultation with I&WRD, Haryana and share the same with CWC. Preparation for taking up DPR shall be continued simultaneously.
- The ongoing discharge measurement exercise shall be continued.



- BBMB shall take up the process of rectification of the Gauge-Discharge Tables in light of the results of the measurements taken so far.
- BBMB shall inform the Govt. of Punjab about the issue and findings of the ongoing discharge measurements.

Discussion on Dam Safety Programme with World Bank Team

A meeting cum discussion was held under the Chairmanship of Shri Sanjay Kumar Sibal, Member (D&R) CWC & Chairman NDSA with World Bank team on 17.05.2023 and 26.05.2023. During the meeting, discussion was held on the seven draft regulations prepared as per section 54(2) of the Dam Safety Act-2021 along with the issues related to effective implementation of various provisions of Dam Safety Act, 2021.



Discussion on various issues related to inspection of dams and furnishing of data regarding specified dams in compliance of Dam Safety Act, 2021

Shri Sanjay Kumar Sibal, Member (D&R), CWC attended the meeting to discuss various issues related to inspection of dams and furnishing of data of specified dams in compliance of Dam Safety Act, 2021 in respect of selected States namely Gujarat, Rajasthan, Maharashtra, Madhya Pradesh and Chhattisgarh on 18.05.2023 in Shram Shakti Bhawan, New Delhi under the chairmanship of Secretary, DoWR, RD & GR.

The agenda points discussed in the meeting are as follows:-

1. Pre-monsoon inspection of all the specified dams in compliance of Dam Safety Act, 2021.
2. Status of furnishing of data regarding specified dams in order to create a National Level Database of all the specified Dams.
3. Other issues relating to implementation of provisions of Dam Safety Act, 2021.

MoU Signing Ceremony between the National Dam Safety Authority (NDSA) and MNIT Jaipur

Memorandum of Understanding (MoU) signing ceremony between the National Dam Safety Authority (NDSA) and MNIT Jaipur for "Establishing National Centre for Earthquake Safety of Dams" has been held on 22.05.2023 at MNIT, Jaipur in the august presence of the Hon'ble Minister of Jal Shakti.

Shri Kushvinder Vohra, Chairman, Central Water Commission & Ex-officio Secretary, Govt. of India and Chairman NDSA along with other officials of MNIT, NDSA & CWC also participated.

In his address, Shri Kushvinder Vohra mentioned that the enactment of the Dam Safety Act, of 2021 has established a legal framework in the country for maintaining large Dams. He said that earlier a MoU for establishing CoE at IIT Roorkee has been signed wherein IITR will be working in the field of Reservoir sedimentation management, Construction Material Testing, Hydraulics and seismic analysis of Dams. Deliberations with other institutes like IISc, Bangalore and NITs are in progress for establishing the Centre of Excellence there. The M. Tech program on Dam Safety has been started in two institutes at IIT Roorkee and IISc Bangalore from the academic year 2021-22. Chairman, CWC encouraged the



participation of students for the said M.Tech program. Under MoU with MNIT, Jaipur, non-recurring grant of Rs. 30.00 Crores (Rupees Thirty Crores) shall be provided in five tranches. MoU shall be valid for five years from the date of signing; and can be extended thereafter as per the mutually agreed terms and conditions. The Centre of Excellence will primarily focus on the earthquake safety of dams. The envisaged Centre of Excellence would be focusing on Institutional Capacity Building, Capacity Development, Technology Demonstration, Standards Development; and International Collaboration.

Discussions with Mr. Tagetaki, Hon'ble Minister for Agriculture, Horticulture, Vet. & fisheries, Arunachal Pradesh regarding Flood Management Schemes in Arunachal Pradesh

A discussion was held on 23.05.2023 by CWC officials with Mr. Tagetaki, Hon'ble Minister for Agriculture, Horticulture, Vet & fisheries, Arunachal Pradesh. In this discussion various aspects were discussed related to Flood Management Schemes in Arunachal Pradesh. The present status of appraisal of flood management scheme of Arunachal Pradesh was reviewed.



Meeting with ICID Officials regarding 25th ICID Congress

A meeting of the Organizing Committee for the 25th Congress and 74th IEC of ICID was held under the chairmanship of Shri Kushvinder Vohra, Chairman CWC/INCID on 23.05.2023. The meeting was attended by Officials from CWC, INCID, ICID, NWDA, WAPCOS, and the

Govt of Andhra Pradesh. The Committee discussed various crucial issues pertaining to Venue finalization, Schedule, Committees for the event, Exhibition, Sponsorship arrangement, payment gateways etc.

Meeting Regarding Project

Renukaji Dam Project

Meeting was held between officials of CWC, GSI, HPPCL and Member of Panel of Geological Experts of Renukaji Dam Project under the Chairmanship of Sh. Sanjay Kumar Sibal, Member (D&R), CWC on 12.05.2023 through virtual mode to review the progress of Geological/Geotechnical/Geophysical investigation works at Renukaji Dam site and related studies pertaining to Renukaji Dam Project.



Lakhwar Multipurpose Project

Meeting was held between officials of CWC, CSMRS & UJVNL and members of GGEs (Group of Geological Experts) under the Chairmanship of Shri Sanjay Kumar Sibal, Member (D&R), CWC on 11.05.2023 through video conference. In the

Ratle HE Project

Shri Sanjay Kumar Sibal, Member(D&R),CWC attended 2nd Meeting of Consultancy Monitoring Committee to monitor "2D and 3D Numerical Hydraulic Model Studies for Reservoir

Kishau Multipurpose Project

Kishau Multipurpose Project is at DPR Stage. Kishau Multipurpose Project has been identified as a National Project in Feb' 2008. The project is a storage scheme located on river Tons (tributary of river Yamuna) in Dehradun district of Uttarakhand & Sirmour district of Himachal Pradesh. The project envisages construction of 236 m high gravity dam with live storage capacity of 1324 MCM. The project will provide irrigation benefit to 0.97 Lakh Ha of area. The project will also provide 617 MCM of water for drinking/industrial purpose. The project will also generate 660 MW of power. A meeting to review various issues including the issue of

meeting, progress of Geological/ Geophysical investigation works at Lakhwar Dam site and related studies pertaining to Lakhwar Multipurpose Project had been reviewed.

Sedimentation of Ratle HE Project (J&K)" held on 23.05.2023 under the chairmanship of Chairman, CWC.

funding of power components of Kishau Multipurpose Project, Uttarakhand/Himachal Pradesh was held under the chairmanship of Secretary DoWR, RD& GR in his chamber on 31.05.2023.

The meeting was attended by Chairman CWC alongwith senior officers from DoWR, RD& GR, Central Electricity Authority, Upper Yamuna River Board (UYRB) and Central Water Commission.

During the meeting, a brief presentation was made by Member Secretary, UYRB on various issues related to Kishau Multipurpose Project.

Situational report of dam incidents/failure

The Bi-weekly situational report on dam incident/failure provided by the field offices of CWC is being compiled and submitted to the office of Hon'ble Minister of Jal Shakti. In

the month of May 2023, no incident related to damages to any dam in the country was reported by the regional offices of CWC.

TRAININGS/WORKSHOPS/PRESENTATIONS

Customized Training Program on 'Dam Safety Aspects-An Overview' under DRIP Phase II

As part of capacity building under DRIP-2, customized training program on 'Dam Safety Aspects-An Overview' for officers of Gujarat WRD, was held at NWA Pune during 17-26 May 2023. About 25 officers of Gujarat WRD participated in the program. The program was inaugurated by Shri D.S. Chaskar, Chief Engineer, NWA.

The training program comprised of structured classroom lectures on various topics related to dam safety such as overview of Dam Safety Act and DRIP, aspects related to Dam Instrumentation, Risk Assessment and Hazard Classification; Dam Safety Inspection and Investigation protocols; Design Flood Review; Reservoir Sedimentation; Dam Break Analysis and Inundation Mapping; Emergency Action plan; Operation and Maintenance of Dams; dam safety issues and remedial measures, H-M rehabilitation etc.

The course structure contained various case studies to showcase participants about the good practices implemented under DRIP-1 concerning the dam



rehabilitation works. The lectures were given by officials from CWC along with CSMRS, CWPRS, NGRI, NIRM, various State Govt officials, and private agencies such as Planys, Encardiorite and Parsons Ltd etc.

The officers were taken to Temghar dam, Maharashtra for field visit and on-site demonstration was given regarding filling up of Safety Inspection format. The program received overwhelming response, in terms of content coverage and diversity of topics.

Training to 40 officials from Uttar Pradesh on Dam Break Modelling

Shri Ankit Kumar, Deputy Director, FE&SA Directorate provided training to 40 officials from Uttar Pradesh on Dam Break Modeling and Reservoir Routing from 17th-19th May, 2023 at Lucknow, Uttar Pradesh.



Visit/Inspection of Projects/Sites by CWC Officials



Ghungshi Barrage (Medium) Irrigation Project

The Ghungshi Barrage (Medium) Irrigation Project has been constructed on the river Purna, a tributary of Tapi river, in Akola district of Maharashtra. The project has been included under Special Package for "completion of irrigation projects to address distress in Vidarbha and Marathwada and other chronically drought prone areas of Rest of Maharashtra" during 2017-18. The project has been planned to provide irrigation to an area of 6343 ha ICA (6660 ha UIP). Central Assistance of ₹22.808 crore has been released to the project.

Shri Karan Raghuvanshi, Deputy Director, MCO, CWC, Nagpur visited the project on 08.05.2023 for monitoring the physical and financial progress of the project components included under Special Package for Maharashtra scheme.



Officials of Water Resources Department accompanied during the visit.

OTHER ACTIVITIES

Financial Progress of Schemes as on 31.05.2023

(Amount rounded-off in ₹ Crore & Specific to CWC's component)

Sl. No.	Scheme/Component Name	BE(2023-24)	Expenditure	Expenditure (in %)
1	Development of Water Resources information System (DWRIS)	162.130	15.0796	9.30%
2	Investigation of Water Resources Development Schemes (IWRD)	20.000	1.209	0.60%
3	Flood Management & Border Areas Programme (FMBAP)	20.310	1.8662	9.19%
4	Direction & Administration (D&A)-Major Works and OE (SAP)	11.000	0.00	0.00%
5	National Hydrology Project (NHP)	31.58	0.00	0.00%

Flood Situation in the country -May 2023

Regular Flood Forecasting Activity commenced on 01.05.2023 in Brahmaputra and Barak and Jhelum basins. During the period from 1st May to 31st May 2023, 11 level flood forecasts were issued, and all the forecasts were within limit with a 100% percent accuracy. No Red Bulletin (for Extreme flood situation) and Orange Bulletin (for severe flood situation) were issued till 31st May 2023 from Central Flood Control Room.

Summary of Flood Situation during 01.05.2023 to 31.05.2023

Extreme Flood Situation

No FF station observed Extreme Flood Situation.

No flood monitoring station observed Extreme flood situation.

Severe Flood Situation for FF Stations

No FF Stations observed Severe Flood Situation.

Above Normal Flood Situation

3 FF Stations in Assam, and Jammu and Kashmir observed Above Normal Flood Situation.

Reservoirs having Inflow above threshold limit

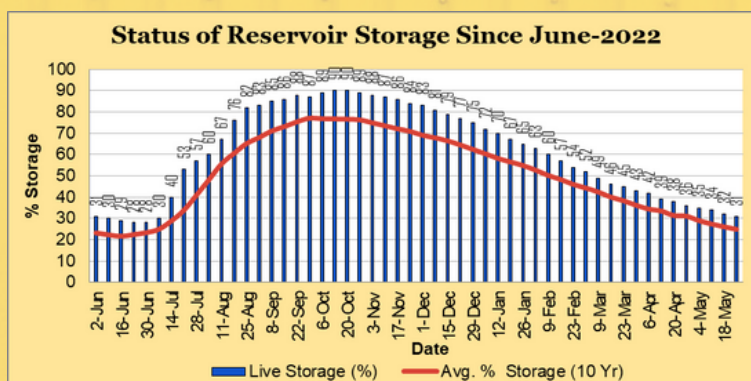
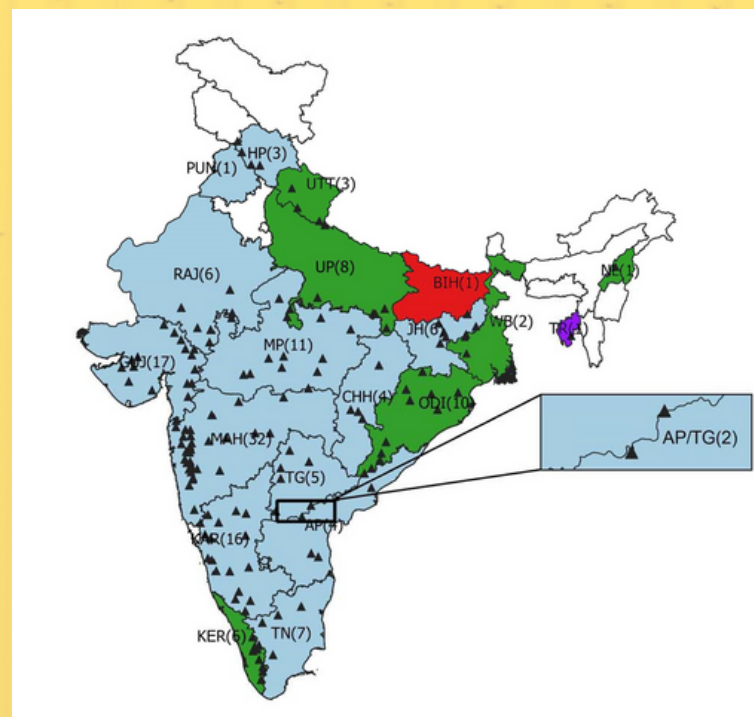
No reservoir received inflows above their threshold limit.



Reservoir Monitoring

CWC is monitoring live storage status of 146 reservoirs of the country on weekly basis and is issuing weekly bulletin on every Thursday. Out of these reservoirs, 18 reservoirs are of hydro-electric projects having total live storage capacity of 34.960 BCM. The total live storage capacity of these 146 reservoirs is 178.185 BCM which is about 69.11% 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 25.05.2023, the total live storage available in these reservoirs is 54.577 BCM which is 31% of total live storage capacity of these reservoirs. However, last year the total live storage available in these reservoirs for the corresponding period was 57.221 BCM and the average of last 10 years live storage was 44.343 BCM. Thus, the live storage available in 146 reservoirs as per the bulletin dated 25.05.2023 is 95% of the live storage of corresponding period of last year and 123% of storage of average of last ten years.



- ▲ 146 RESERVOIRS UNDER CWC MONITORING
- STORAGE MORE THAN AVG. OF LAST 10 YEARS
- STORAGE BETWEEN 80% to 100% OF AVERAGE OF LAST 10 YEARS
- STORAGE BETWEEN 60% to 79% OF AVERAGE OF LAST 10 YEARS
- STORAGE BETWEEN 40% to 59% OF AVERAGE OF LAST 10 YEARS
- STORAGE LESS THAN 40% OF AVERAGE OF LAST 10 YEARS

Map Indicating State-wise Storage Position as on 25.05.2023

Water Sector-News

- Still waiting for Mahadayi waters, farmers' outfit enters poll battle (The Indian Express, 02.05.2023)
- Nine months after it developed cracks, work to repair Karam dam yet to begin (Times of India, 08.05.2023)
- Central teams to inspect water sources in 150 stressed districts (Millennium Post, 09.05.2023)
- India, Israel eye stronger water, agri & defence ties (The Times of India, 10.05.2023)
- Rejuvenation of waterbodies key to improving water resilience, says study (The Hindu, 12.05.2023)

- 12 crore rural tap water connections provided so far : Govt data (Millennium Post, 17.05.2023)
- Indus Waters Treaty : Centre advises J&K to scale up efforts for 'better utilisation' (The Hindu, 27.05.2023)
- Srinagar Ranks Top in the Country in Implementation of JJM Among 135 Har Ghar Jal Certified Districts (Kashmir Age, 28.05.2023)
- Climate crisis not only urban but also rural, developmental (Hindustan Times, 29.05.2023)
- Joint survey on river erosion to be undertaken at Farraka Barrage (The Hindu, 30.05.2023)

Gallery



आजादी का अमृत महोत्सव के तहत सरदार सरोवर डैम के कमांड एरिया में जल उपयोग दक्षता में सुधार के लिए अंडर ग्राउंड पाइप लाइन के लाभों पर Water User Associations के लिए जन जागरूकता कार्यक्रम दिनांक 27.04.2023 को MTBO, CWC गांधीनगर तथा सरदार सरोवर नर्मदा निगम लिमिटेड एवं अनार्दे फाउन्डेशन के सहयोग से चानश्मा जिला पाटन, गुजरात में संपन्न हुआ।



Discussions regarding Ram Ganga Basin Plan were held among CWC, GIZ team, SMCG & CGWB at Lucknow.



माही एवं तापी बेसिन संगठन केन्द्रीय जल आयोग गांधीनगर में तीन दिवसीय "जल विज्ञानीय प्रेक्षण तथा केन्द्रीय जल आयोग में उपयोग होने वाले मापन यंत्रों एवं उनके रखरखाव पर प्रशिक्षण कार्यक्रम"



Ms Debashree Mukherjee, Special Secretary, DoWR, RD&GR, MoJS visited National Water Academy, Central Water Commission on 22.05.2023 and reviewed the activities of NWA, followed by interactions with CWES Group A probationers who are currently undergoing their Induction Training Program.



The 1st Quarterly Dialogue between Central Government Departments and Rajasthan State Government Departments in Water Resources Sector on 30th May 2023 at Jaipur jointly with CGWB, Jaipur where in discussions were held on RRR of Water Bodies and National Aquifer Mapping and Management Studies by regional offices of CWC and CGWB respectively.

History- A Blueprint on Obra Dam

The entire power from the Rihand Power house has already been booked for various large and small industries and for electrification of railways, but there is still a keen demand for power. To meet it, engineers were on the lookout for another suitable site on the river for a dam downstream of Rihand to utilize the continuous tailrace waters from the Rihand turbines, for generation of more power. After preliminary investigation and survey, a suitable site was discovered during 1959 near Obra village where the construction of pick-up dam has been taken up.

Location

The Rihand runs through a narrow gorge 32 km (20 mile) downstream of Rihand Dam and 11 km (7 mile) above its confluence with the river Sone. This gorge presents three sites within 2.4 km (a mile and a half) of its length. The upper two sites have steeply rising abutments and are suitable for a dam in concrete or masonry or both. They have no saddles on the flanks for a spillway. The construction of masonry or concrete dam would be very costly, as 30 m (100 ft) of sand lie on the foundation rock. The third site, which has been selected, has a comparatively wider gorge, but it provides space for sitting an overflow spillway on its right flank. Here will rise the Obra Dam. The site, also approved by Dr. Armand Mayer, specialist on Soil Mechanics from France, commands all the materials and facilities for the proposed earth and rockfill dam.

Water for Power

The hydrology of the river at Obra is practically known and controlled because of water storage at the Rihand Dam. The catchment between these two dams is only 546 sq km (211 sq mile). The Rihand spillway has been designed to pass down a maximum flood of 13,336 cu m (471,000 cu ft) per sec. The rainfall run off from the intervening catchment will be 2,152 cu m (76,000 cu ft) per sec. Hence the spillway at Obra will be called upon to discharge about 15,574 cu m (550,000 cu ft) per sec. It has also been ascertained that even if the intervening catchment is hit by the worst known deluge, the total flood of 18,972 cu m (670,000 cu ft) per sec can be safely passed down the Obra spillway.

Power in Harness

The Obra Power House will naturally run hand in hand with the Rihand Power House. Such coordination yields benefits from the two plants. The estimated continuous power output is 105,000 kW from the Rihand Station and 33,000 kW from the Obra Station. On the basis of water availability data over the years 1902 to 1960, the two power stations together, would be able to produce 138,000 kW continuous power, except during dry spells when it might be cut by 50,000 kW.

Project Features

The Obra Project envisages an earth and rockfill dam 29 m (95.5 ft) high above river bed and 422 m (1,386 ft) long at its crest. It will be made up of a clay core with 2.4 m (8 ft) double filters on either side. A dyke, 185 m (608 ft) long, will run on the left flank. Seepage from the reservoir will be checked by an upstream impervious clay blanket of 244 m (800 ft). At the end of the blanket, along the dam line, sheet piles will be driven down to bed rock in two rows. Sand between them will be grouted with clay or cement slurry.

A concrete spillway will be built on the right flank with 11 bays of 12 m (40 ft). It can discharge up to 18,972 cu m (6.7 lakh cu ft) per sec without overtopping the Dam.

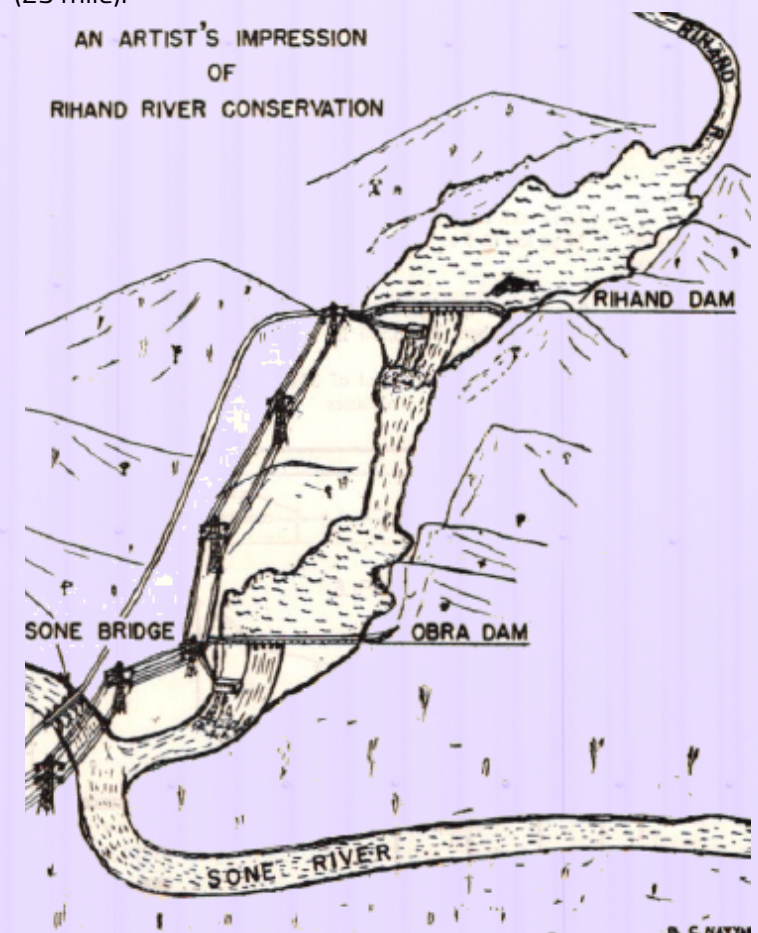
The Dam and spillway will have a 6 m (20 ft) wide roadway connecting Chopan with Singrauli Coal fields.

A Power Channel about 192 m (630 ft) long with a capacity of 583 cu m (20,600 cu ft) per sec on the right of the spillway shall lead water to the power house at its toe.

A power house with three generating units of 33,000 kW each will be constructed at the end of the power channel. The Kaplan type turbines will be fed by penstocks of 8 m (26 ft) diameter taking off from a masonry dam, at the end of the power channel.

Power Transmission

The Project will be connected to the Rihand Grid by 132 kV double-circuit transmission lines from the Obra Power House to the Robertsganj Sub-Station at a distance of 17 km (23 mile).



Materials

Good impervious soil is available close to the dam site. Abundant limestone from the spillway and the power channel excavations will come in handy for rockfill in the dam as well as for masonry and concrete.

Submergence

The normal reservoir level at Obra will fall in with the tail water level of the Rihand Power Station so that Obra will not affect the power output from Rihand. The normal capacity of Obra Reservoir will be 999 lakh cu m (81,000 acre ft) at which it will cover 14 sq km (5.5 sq mile).

The reservoir will submerge only a few huts in the villages of Obra, Jurra, Panari, Burban and Kumbhia. Compensation for lost property will be paid, and the displaced will be rehabilitated.

Planning and Progress

The Project is expected to be completed in the Third Five Year Plan. It is imperative that the entire earth and rockfill dam should be completed in one working season, from October 1963 to June 1964.

Preliminary designs, drawings and tender documents are ready and world-wide tender would be floated very shortly for the construction of the Dam. Power House and appurtenant works. Construction of approach road and colony has been started. Arrangements are underway for procurement of construction materials and equipment.



OBRA DAM Features at a Glance	
LOCATION	.. On Rihand River 32 km (20 mile) downstream of Rihand Dam near village Obra in Mirzapur District in Uttar Pradesh.
CATCHMENT AREA	..
Total Catchment of Rihand river at Obra	13,8000 sq km (5,359 sq mile)
Between Rihand Dam & Obra	546 sq km (211 sq mile)
DAM :	
Type	.. Earth and rockfill with concrete spillway
Length	
Main Dam	.. 422 m (1,386 ft)
Spillway	.. 159 m (520 ft)
Dyke	.. 185 m (608 ft)
Height above River Bed	.. 29 m (95.5 ft)
Surplusings Works	.. Eleven bays of 11 m (37 ft) high and 12 m (40 ft) wide fitted with Tainter Gates
RESERVOIR :	
Capacity	.. 1,369 lakh cu m (1,11,000 acre ft).
Waterspread	.. 14 sq km (5.5 sq mile)
POWER STATION :	
Installed Capacity	.. Three units of 33,000 kW each.
Turbines	.. Three numbers of 46,500 hp
COST :	.. Rs. 11.22 crore
BENEFITS :	.. Continuous power output of 33,000 kW Fishery, industries and recreation.

Cost of Power

The cost of the Project is estimated to be Rs. 11.22 crore. Power will be generated at 2.86 nP/kWh at the Station. The return on capital outlay, including interest charges during construction is expected to be 5.2 percent which is considered very profitable.

Benefits

The Project will yield 33,000 kW of continuous power, and a peak supply of 100,000 kW power in conjunction with the Rihand Station.

Indirectly, fish production, small and large scale industries, such as porcelain, fire-clay, cement and paper, and consequent rise in employment and people's income will be the fruits of Obra.

(Source: Bhagirath Volume-VIII June 1962)



Central Water Commission

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