



Shri Kushvinder Vohra
Chairman, CWC

Message

The month of March 2023 was undeniably a period of significant activity, marked by constructive discussions, knowledge sharing, and inclusive events. These endeavors underscored the commitment of all participants and organizations involved to address environmental challenges, strengthen water management, and foster sustainable development for a better future.

The Central Water Commission (CWC), a leading technical body in water resources, plays a vital role in setting standards for water resources development, management, and related fields. It actively engages in the Water Resources Division Council (WRDC) and Civil Engineering Division Council (CEDC) activities. The WRDC constituted by Bureau of Indian Standard (BIS), chaired by the Chairman, CWC advises on standards development aligned with national priorities and R&D needs. CWC also leads ISO Technical Committees, guiding standards with Indian participation. Under the leadership of Chairman, CWC, WRDC has formulated 465 standards through 17 Sectional

Committees, subject to periodic updates or changes as needed. The 21st WRDC meeting, under my chairmanship, took place on 06.03.2023 in virtual mode at CWC (HQ), New Delhi. It was decided to come out with new Sectional Committee for Rehabilitation and Retrofitting of Dams, Glacial Lake Outburst Floods (GLOF), Landslide Lake Outburst Floods (LLOF) and Urban Flooding. It was also approved to accept the Participating 'P' Membership of India in new ISO Committee Small Hydro Power Plants (ISO/TC339).

Gandhinagar, Gujarat, hosted the 2nd G20 Environment and Climate Sustainability Working Group (ECSWG) meeting from March 27-29, 2023. This global gathering focused on critical environmental issues such as land degradation, ecosystem restoration, and biodiversity enrichment. Attended by representatives from Nineteen G20 countries, 9 invitee countries, and 13 international organizations, the event surpassed 130 delegates. The opening address was delivered by Ms. Debashree Mukherjee, Special Secretary, Ministry of Jal Shakti.

The Ministry of Jal Shakti's pavilion featured 15 stalls showcasing various organizations' information and schemes, alongside one stall from the Government of Gujarat. The CWC's DRIP stall highlighted contributions to climate-resilient dams and communities, extending dam asset life, and the Dam Safety

Act. The program's alignment with UN Sustainable Development Goals Agenda 2023 was emphasized. Mahi & Tapi Basin Organisation (MTBO), CWC, Gandhinagar, led by Chief Engineer played a pivotal role in organizing the events and site visits. A press conference was held by me on the second day, March 28, 2023, to brief the media on meeting deliberations.

The Central Water Commission plays a crucial role in resolving interstate water issues through impartiality, technical expertise, and equitable resource allocation. This fosters cooperation, prevents conflicts, and promotes sustainable water management among states sharing river basins. In March 2023, CWC organized meetings on Nohar Feeder, Baruwali Distributaries, Mullaperiyar Dam, and Godavari basin water availability. CWC officers also provided technical expertise and valuable input to projects like Polavaram Irrigation, West Seti HEP, Somb Saraswati Barrage, Lakhwar MPP, Reoli Dugli HEP, and Renuka Dam Project, benefiting project authorities and stakeholders.

Erstwhile Ministry of Water Resources (now Ministry of Jal Shakti) had constituted a high level inter-disciplinary official body, the "National Committee on Seismic Design Parameters (NCSDP) for River Valley Projects" in 1991 (formerly known as Standing Committee) to recommend the site specific design seismic parameters for design of dams and other

appurtenant structures of the river valley projects. The site specific reports for determination of seismic parameters involve estimation of seismic parameters either using the deterministic seismic hazard analysis (DSHA) method or the probabilistic seismic hazard analysis (PSHA) method. In this connection, 37th meeting of NCSDP in the chairmanship of Member (D&R), CWC was held on 10.03.2023. Five Nos. of projects for finalization of site specific seismic design parameters and one micro earthquake study were considered.

A National Workshop on "On-Farm Water Management for Future Security" was held by CWC in collaboration with the Indian Water Resources Society (IWRS) and the Department of Water Resources Development & Management at IIT Roorkee. The workshop shed light on the

potential impacts of population growth, urbanization, and climate change on the future water, food, and energy security of the country, emphasizing the need for proactive measures.

The Central Water Commission used to oversee the real-time storage levels of 143 reservoirs nationwide on a weekly basis, issuing a bulletin every Thursday. Noteworthy is their expansion of monitoring efforts in March 2023, as three more reservoirs—Panshet (Tanajisagar), Bhama Ashked, and Darna Dam—were included, making the total number of monitored reservoirs as 146.

Our cultural values strongly uphold women's empowerment. Within our organization, we foster an environment of equality and support. This commitment is evident in our comprehensive policies,

mentoring initiatives, and efforts that foster leadership and professional growth. The energy surrounding International Women's Day on 08.03.2023, was truly invigorating.

As a part of the "International Women's Day- Women Empowerment" workshop, graced by presence of Ms Debashree Mukherjee, Special Secretary, DoWR, RD&GR, was conducted on 06.03.2023. During the event, accomplished women officials shared their CWC experiences, followed by a felicitation ceremony by the Chief Guest for women officials who have dedicated over 35 years of service to CWC. Additionally, prizes were awarded to the winners of the Drawing, Painting, and Rangoli Making competition held on 03.03.2023.

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The 21st meeting of Water Resources Division Council (WRDC) of BIS

The 21st meeting of Water Resources Division Council (WRDC) of BIS was held under the Chairmanship of Shri Kushvinder Vohra Chairman, CWC and Ex-Officio Secretary to Govt of India in capacity as Chairman, WRDC on 06.03.2023 in virtual mode at CWC (HQ), New Delhi.

The meeting was attended by various experts in the field of Water Resources as Members/ Ex-Officio Members of the Division Council. Central Water Commission is represented by Chief Engineers as Chairperson of the 06 Sectional Committees in WRDC besides other Directors as Members of the 17 Sectional Committees.

During the meeting, Chairman emphasized on the emerging areas for standardization such as Rehabilitation and Retrofitting of dams, Glacial Lake Outburst Floods (GLOF), Landslide Lake Outburst Floods (LLOF) and Urban flooding. It was decided to come out with new Sectional Committee for the above areas and carve out overlapping areas from existing Sectional Committees.



The proposal for inclusion of new subject areas was approved. It was also approved to accept the Participating 'P' Membership of India in new ISO Committee Small Hydro Power Plants (ISO/TC339).

Chairman also directed BIS Secretariat to review the activities of the Sectional Committees through a Search Committee to be finalized by Council.

Meeting for Assessment of Water Availability in Godavari Basin and its Sub Basins

A meeting regarding assessment of water availability in Godavari basin and its tributaries was held under the chairmanship of Member(D&R) on 09.03.2022. Concerned officers from Godavari River Management

board and HSO unit were present in the meeting. Chairman, GRMB has requested CWC to prepare a report on water availability of Godavari Basin as per GWDT award.

37th Meeting of the National Committee on Seismic Design Parameters (NCSDP)

The 37th meeting of National Committee on Seismic Design Parameters (NCSDP) was held on 10.03.2023 at CWC, New Delhi under the chairmanship of Shri S.K. Sibal, Member(D&R), CWC wherein 5 nos. of projects for finalization of site specific seismic design parameters and 1 micro earthquake study were

considered for approval of the committee. Two nos. projects (out of five) were cleared and 1 micro earthquake study was accepted in the meeting. Finalization of multiplying factors and (I/R) values and review of the NCSDP guideline were also discussed in the meeting.

पानीयं परमं लोके जीवानां जीवनं समृत्तम्।
पानीयस्य प्रदानेन तृप्तिर्भवति पाण्डव।
पानीयस्य गुणा दिव्याः परलोके गुणावहाः॥

महाभारत में कहा गया है कि संसार में जल से ही समस्त प्राणियों को जीवन मिलता है। जल का दान करने से प्राणियों की तृप्ति होती है। जल में अनेक दिव्य गुण हैं। ये गुण परलोक में भी लाभ प्रदान करते हैं-

Meeting Regarding 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 held a meeting on 15.03.2023 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 02.02.2023 regarding the issue of less availability of water from Nohar Feeder and Baruwali Distributary to Rajasthan.

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

- I&WRD, Haryana and WRD, Rajasthan with mutual consultation shall prepare the DPR of the most feasible option for improvement of the canal system i.e. repairing/remodeling of the Nohar Feeder, Baruwali Distributary, Fatehabad Branch, Common Pool (CP-4), Nehrana Head, Cross Regulator etc. The preliminary conceptual plan may be intimated to CWC by 23.04.2023. Work of DPR preparation may continue parallel duly considering all the aspects of benefits & costs. Timeline for submission of DPR shall be decided



during the next review meeting. Both the States in mutual consent may hire a consultant for preparation of DPR.

- The system shall be modernized only up to the extent of necessity. The cost of the proposal should be optimized in such a manner that it includes only those components/items which are absolutely mandatory for the improvement of the system.

The report on the discharge measurement shall be finalized by CWC up to 15.04.2023. CWC will share the details of the discharge measurements with BBMB immediately; and BBMB will analyze the same and during the next meeting BBMB will explain the possibility of improvement in the system.

Discussion on the progress of PFR 2nd 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.

As a follow up of the meeting held 20.02.2023, another meeting under the Chairmanship of Chairman, CWC and Ex-Officio Secretary to Govt of India was held on 16.03.2023 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.

The meeting was attended by Member(WP&P), CWC, Member(D&R), 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 Report submitted by WRD, GoAP.

During the meeting, Chairman, CWC directed Officials from WRD, GoP to further modify the report submitted by GoP on 14.03.2023 as per latest SoR, the requirement of WRD, GoP and other important considerations and accordingly, resubmit the report. He also directed CWC Directors posted in IBO, CWC, Chandigarh to resolve issues, if any and CE(BO), CWC to monitor the progress.

2nd meeting of the Organizing Committee for 25th Congress & 74th IEC of ICID

The second 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 23.03.2023 in the hybrid mode. The meeting was attended by Officials from CWC, INCID, ICID and the Govt of Andhra Pradesh. The Committee discussed various crucial issues pertaining to Venue finalization, Schedule, Committees for the event, Exhibition etc.



During the meeting, the Organizing Committee finalized the Radisson Blue Resort, Vizag as the venue for the Congress and IEC Meeting. The Committee was informed about INCID Secretariat's proposal to the State Govt of Andhra Pradesh as well as the Scope & composition of the various Committees being formed

for the management of the various aspects of the event. The Committee also noted that developments regarding the involvement of ICID in the updation and management of the Event website. The Committee also reviewed the membership of the Organizing Committee with some inclusions, deletion as well as changes in designations.

16th meeting of Supervisory Committee on Mullaperiyar Dam (MPD)

The 16th meeting of Supervisory Committee on Mullaperiyar Dam (MPD) was held on 27.03.2023 under the Chairmanship of Shri Vijai Saran, Chief Engineer, Dam Safety Organisation, CWC and Chairman Supervisory Committee on MPD at Kumily, Kerala. The meeting was attended by all the Members of the committee; Dr. Sandeep Saxena, ACS, WRD, Govt. of Tamil Nadu, Dr. V. Venu, ACS, WRD, Govt. of Kerala, Shri R Subramanian, Chairman, CTC cum ISWW, Govt. of Tamil Nadu, and Shri Alex Varghese, Chief Engineer (I&A) Irrigation Deptt., Govt. of Kerala and other officials of CWC, Govt. of Tamil Nadu and Govt. of Kerala. The Supervisory Committee inspected the entire stretch of Vallakadavu Ghat road and Mullaperiyar dam & its appurtenant structures in the



forenoon. The overall condition of dam and its appurtenant structures, as revealed by visual inspection was found to be satisfactory by the Committee.

G-20 Water Deputies Exhibition at Gandhinagar, Gujarat

Shri R.K. Gautam, Director, CWC participated as Exhibitor during 2nd Environment and Climate Working Group Meeting of G-20 countries, held during 27-29th March 2023 at Gandhinagar, Gujarat. Out of 15 stalls of Ministry of Jal Shakti, DRIP Stall was one of them. The DRIP Stall highlighted the story of positive contribution towards climate resilient dams and communities, in addition to ensuring food, energy and water security, by extending the life of the dam assets. The stall also exhibited about recently enacted Dam Safety Act. The program's contribution towards UN Sustainable Development Goals Agenda 2023 was also stressed upon. The stalls were visited by invited foreign delegates,



officials from MoEF&CC, MoJS, CWC, Govt. of Gujarat etc. The visitors were explained about the Project, and its relevance for safe upkeep of water infrastructure to derive intended benefits sustainably.

3rd Meeting of the Eight-Member Inter-Governmental Group for Review of the Barrage and Dam Option for Punatsangchhu-I Hydroelectric Project

Eight-Member Inter-Governmental Group (IGG) held their third meeting in New Delhi on 28.03.2023. Member, D&R has attended this meeting. Other participants included the Chairperson of the IGG, all

the IGG Members, special invitees, experts from NGI and Fichtner. Various issues regarding Punatsangchhu-I Hydroelectric Project (PHEP-I) was discussed during the meeting.

Meeting of the Public Investment Board for consideration of Revised Cost Estimate (RCE) of the North Koel Project in Jharkhand & Bihar

A meeting of Public Investment Board (PIB) under the chairmanship of Finance Secretary & Secretary (Expenditure) was held on 31.03.2023 at North Block, Ministry of Finance through video conferencing to consider the RCE of the North Koel Reservoir Project in Jharkhand and Bihar.

Commissioner (FM), DoWR, RD&GR made a detailed presentation on the proposal for consideration of PIB. The PIB deliberated and considered the proposal of RCE of North Koel Reservoir Project of DoWR, RD&GR, MoJS for completion of Balance Work of North Koel Reservoir Project.

Meetings Regarding Projects

Polavaram meetings

Throughout March 2023, several meetings were held to discuss various issues concerning the Polavaram Irrigation Project. On 02.03.2023, a meeting was chaired by Shri S.K. Sibal, Member (D&R), involving the CWC design team and NHPC officials, to discuss the health assessment of the Diaphragm wall of ECRF Dam Gap-II.

On 05.03.2023, the 21st meeting of the Dam Design Review Panel (DDRP) for the project took place in Rajahmundry, chaired by Shri A.B. Pandya. The meeting was attended by representatives from multiple organizations, including CWC, CSMRS, CWPRS, PPA, WRD, GoAP, NHPC, and WAPCOS. Discussions focused on design issues, such as sand filling methods in the scoured foundation of ECRF dam at Gap-I & II, rectification measures for the damaged diaphragm wall at Gap-II, seepage issues from the upstream coffer dam, dewatering, CWPRS model study report on the approach channel, and non-destructive testing on trunnion beams. Decisions on the sand filling method and Gap-II diaphragm wall were made during this meeting.

Another meeting was held on 09.03.2023, presided over by the Chairman of CWC, to discuss the progress of the Polavaram Irrigation Project in Andhra Pradesh. Senior officers from various concerned departments,

West Seti HE Project

A meeting was held in CWC with NHPC officers on 03.03.2023 to discuss the aspects of layout of West Seti HEP, Nepal. Aspects related to the nature of the project, ways of optimising dam cost, issues at the proposed location of underground Power house and prospects of utilising the allotted river reach to the fullest were deliberated.



including Central Water Commission, Polavaram Project Authority, and Water Resource Department (WRD) of Andhra Pradesh, provided updates on the project's progress. Discussions also involved the course of action and timelines for completing the construction process of the Earth-Cum Rock Fill (ECRF) dam and addressing pending issues such as Benefit/Cost (B/C) ratio. The officers of WRD, Andhra Pradesh, presented a report on the present status of various works and design-related matters regarding the Earth-cum Rock Fill (ECRF) dams.

Lastly, on 13.03.2023, another meeting was held, attended by Shri S.K. Sibal, Member (D&R), along with the Secretary of DoWR, RD&GR, MoJS, and the Advisor to the Hon'ble Minister of Ministry of Jal Shakti, to discuss issues related to the Polavaram Irrigation Project in Andhra Pradesh.



Somb Sarasvati Barrage Project

Meeting of CWC and HSHDB officials was held on 10.03.2023 to discuss alternative layouts of conveyance pipeline from Somb Sarasvati Barrage to Sarasvati Reservoir. Project authorities are advised to narrow down the alternatives from four to two and detailed out them.



Lakhwar Multi Purpose Project (300 MW), Uttarakhand

Meeting of CWC and UJVN officials to discuss the issues related to Lakhwar MPP, Uttarakhand was held on 15.03.2023 under the Chairmanship of CE, Designs (N&W). Constitution of a Geologist Group of Experts (GGE), dealing with geological issues and Technical

Group to review the numerical studies carried out by NIRM and the technical aspects associated with excavation works of powerhouse complex have been discussed.

Reoli Dugli Hydro Electric Project, Himachal Pradesh

Diameter of proposed surge shaft of Reoli Dugli HE Project is unusually large and may pose stability and safety concerns during execution. Accordingly issues of exceptionally large sizes of proposed alternative

underground structures were highlighted during the meeting which was held among the CEA, CWC, GSI and SJVN officials on 16.03.2023 in office of the Chief Engineer, Designs (N&W).

Renukaji Dam Project

Meeting with the panel of Geologist Experts of Renukaji Dam Project, Himachal Pradesh was held under the Chairmanship of Shri S.K. Sibal, Member(D&R), CWC on 03.03.2023 in virtual mode. In addition to the panel members, the meeting was

attended by officers of CWC, GSI, CSMRS and HPPCL. Various issues such as geology at the dam site, dam type, type of spillway and sedimentation in the project were deliberated during the meeting.

TRAININGS/WORKSHOPS/PRESENTATIONS

Workshop on “International Women’s Day- Women Empowerment”

As a part of International Women’s day i.e., on 08.03.2023, CWC (HQ) conducted a workshop on “International Women’s Day- Women Empowerment” on 06.03.2023, Special Secretary, DoWR, RD & GR Ms. Debashree Mukherjee graced the occasion as Chief Guest.

In her address, she emphasized that every day is women’s day. As far as employment of women is concerned, 19% of women are in the labour force. She advised women officials that if they have something to contribute, they should speak up and ensure that their voice gets heard even if there is only a woman in the room. Further, women must create their network with the women who come to work, mentor them and support them. She emphasized that whenever there is an opportunity, take the additional responsibilities which are assigned, this will make a big difference in long run. Sh. Kushvinder Vohra, Chairman, CWC delivered his address and mentioned that Narishakti nurtures a family, society and country. In addition to this, Narishakti also nurtures an organization by providing much needed balance, exploring new



avenues and creative methodologies in the organization.

Thereafter women officials shared their experiences in CWC, followed with felicitation by Chief Guest of women officials who have served CWC for more than 35 years of long service.

Prizes were distributed for the winners of Drawing, Painting and Rangoli Making competition which was held on 03.03.2023.

National Workshop on the Topic “On-Farm Water Management for Future Security”

CWC hosted a National Workshop on the topic “On-Farm Water Management for Future Security” in association with the Indian Water Resources Society (IWRS) and Deptt. of Water Resources Development & Management, IIT Roorkee on 20.03.2022.

Shri Kushvinder Vohra, Chairman, CWC and Ex-officio Secretary to Government of India who also serves as the President of the IWRS, inaugurated the workshop and addressed the gathering on the occasion. He highlighted the impact of population growth, urbanization, and climate change on the future water, food & energy security of the Country. Agriculture sector being the major consumer is expected to be greatly impacted unless measures are adopted for improving the water use efficiency and crop productivity. He apprised the audience on various initiatives that have already been adopted by the



Govt. of India in this regard.

Chairman, CWC wished all the success to the Workshop for holding fruitful deliberations on the topic amongst the participants comprising of academia, professionals and practicing engineers.

Training on Dam Health and Rehabilitation Monitoring Application (DHARMA)

As part of capacity building under DRIP-2, CPMU is organizing regular training program on DHARMA in virtual mode. The fourth training on DHARMA portal was conducted on 29.03.2023 for DRIP-II

implementing agencies. The officials from SDSO and dam managers from various States participated in the training.

Visit/Inspection of Projects/Sites by CWC Officials

Kaya Valley Irrigation Project, Arunachal Pradesh

A joint field visit to the Kaya Valley Irrigation Project, Arunachal Pradesh was made by officers of BCD (E&NE) Directorate, CWC, Hydrology (NE) Directorate, CWC along with the officers of BBO, CWC, Guwahati, GSI, Shillong and Irrigation Department, Govt. of Assam during 23rd-27th March 2023. The objective of joint visit was to assess the field conditions so as to finalize tentative and suitable Barrage Axes and Command area on various design aspects.

Kaya Valley Irrigation Schemes is a Minor Irrigation scheme located in East Kameng District of Arunachal Pradesh State under Thrizino Civil Sub-Division. The tentative Gross command area will facilitate under this scheme is 480.70 ha. East Kameng District is sharing international border with Tibet in North. The whole command area has been divided in two stretches and



two separate barrages are proposed as per the desktop study. The total catchment area which contributes to the stream flow (Local River) at the Barrage 1 is 101.638 Km² and at Barrage 2 is 215.363 Km². The scheme shall cater to irrigation and domestic water requirement of the command area.

Sardar Sarovar Dam, Gujarat

Shri Satish Kamboj, Director, Gates Design (N&W) Dte, CWC and Shri Ghanshyam Patel, Deputy Director, Gates Design (N&W) Dte, CWC along with project officials visited Sardar Sarovar Dam, Gujarat on

24.03.2023 and 25.03.2023 regarding problem faced by project authorities during operation of stop log, lifting beam and rope winding problems of 100T spillway Gantry Crane of RBPH, Sardar Sarovar Project, Gujarat.

Internal Consultation on the Proposed Centrally Sponsored Sub- Scheme (PMSKAU) on Modernization of Command Area Development Works in the Completed MMI/SMI/RRR Irrigation Project

DoWR, RD & DR is envisaging a sub scheme for Modernization of Command Area Development works (Pradhan Mantri Sinchan Kshetra Adhunikikaran Upyojna) as a sub component of already approved PMKSY-CADWM Scheme. The Sub scheme is proposed to be operated out of the likely savings of PMKSY-CADWM. The Sub Scheme is envisioned with extensive use of modernization of supply network and communication technology. The irrigation is proposed from the established source to the farm gate up to 1 Ha with underground pressurized pipe irrigation network and integration with established communication technology like IoT/SCADA for volumetric Measurement, Extensive use of technology – like Geotagging of infrastructure and GIS command area mapping, app Based Control, MIS Portal, Knowledge Tool Kit. The proposed ownership and control would be through Water Users Society. There would be an expected saving of water approx 50 BCM after implementation of the proposed Sub Scheme. In this regard Central Water Commission has offered suggestions/comments/observations to CADWM Wing of DoWR, RD&GR. Main suggestions/ comments/ observations are as follows.

- It is suggested that the execution of 100%

Pressurized Pipe irrigation CADWM may be taken up on pilot basis region-wise before taking up on larger scale. This will help in assessing the increase in benefits.

- Transformation of existing gravity field channels irrigated command in to pressurized piped irrigation command is a challenging task but not impossible. The transformation may be achieved by adopting three pronged approach consisting of introduction of PPP mode, incentivisation and massive awareness program among the users.
- Private sector may be involved on PPP mode in the governance, investment operation, maintenance and management of irrigation services.
- There is misconception among paddy and sugarcane cultivators in the wake of drip irrigation. An expert opinion may be widely circulated among farmers. One pilot project in each district of paddy and sugarcane grown area may be promoted to evolve the success story.

The cost and benefit aspects, including increase in yield etc. needs more detailed study and needs to involve the major states like Gujarat, Maharashtra, Karnataka, etc. who have implemented micro-irrigation in large scale.

केंद्रीय जल आयोग एवं केंद्रीय सचिवालय हिंदी परिषद के संयुक्त तत्वाधान में राजभाषा हिंदी संगोष्ठी

दिनांक 17 मार्च 2023 को केंद्रीय जल आयोग एवं केंद्रीय सचिवालय हिंदी परिषद के तत्वाधान में केंद्रीय जल आयोग के सभागार में हिंदी संगोष्ठी का आयोजन किया गया।

हिंदी भाषा की सरलता एवं सुगमता को प्रदर्शित करने के लिए इस कार्यशाला में काव्य पाठ तथा भाषणों के माध्यम का सहारा लिया गया ताकि उपस्थित कर्मचारियों को राजभाषा हिंदी के अधिकाधिक प्रयोग हेतु प्रोत्साहित किया जा सके। माननीय डॉ. भगवान दास पटैरया, सदस्य हिंदी सलाहकार समिति ने भी इस संबंध में अपना संबोधन दिया।

माननीय श्री कुश्विन्दर वोहरा, अध्यक्ष, केंद्रीय जल आयोग एवं भारत सरकार के पदेन सचिव द्वारा संबोधन के दौरान राजभाषा हिंदी में अधिक से अधिक कार्य के लिए सभी कर्मचारियों के मनोबल को बढ़ाया गया।

राजभाषा कार्यान्वयन समिति की बैठक

दिनांक 31.03.2023 को पूर्वाह्न 10.30 बजे अध्यक्ष, केंद्रीय जल आयोग महोदय की अध्यक्षता में राजभाषा कार्यान्वयन समिति की 151वीं बैठक आयोजित की गई। इस बैठक में सितंबर, 2022 एवं दिसंबर, 2022 की तिमाही रिपोर्ट की तुलनात्मक समीक्षा की गई एवं सभी अधिकारियों/

माननीय अध्यक्ष महोदय ने इस बात पर बल दिया कि कार्यालय में राजभाषा हिंदी का प्रसार करने के लिए कठिन भाषा या शब्द लिखने या जानने के बदले दैनिक रूप से बोली जाने वाली भाषा का प्रयोग किया जाए और एक नियमित अभ्यास के तहत अपनी दैनिक कार्यालयी दिनचर्या में लाया जाए।

उन्होंने यह भी अपील किया कि सभी कर्मचारी एक संकल्प और सकारात्मक सोच के साथ दृढ़ निश्चय से राजभाषा हिंदी में तन-मन से बढ़ चढ़ कर कार्य करें ताकि न केवल राजभाषा विभाग द्वारा निर्धारित लक्ष्य को प्राप्त किया जा सके बल्कि आगामी वित्तीय वर्ष 2023-2024 में अपने गौरव को और भी बढ़ाने हेतु राजभाषा विभाग, गृह मंत्रालय से केंद्रीय जल आयोग को राजभाषा हिंदी में उत्कृष्ट कार्य करने के लिए एक राजभाषा कीर्ति पुरस्कार भी प्राप्त किया जा सके।

कर्मचारियों को वर्ष 2023-24 के दौरान अपना अधिक से अधिक कार्य हिंदी में करने के लिए समुचित दिशानिर्देश दिए गए। अध्यक्ष महोदय ने राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्रम के अनुसार निर्धारित लक्ष्यों को प्राप्त करने तथा राजभाषा हिंदी के प्रगामी प्रयोग को सुनिश्चित करने के लिए सभी आवश्यक उपाय तत्काल आधार पर करने का निदेश दिया।

हिन्दी कार्यशाला का आयोजन

दिनांक 03.03.2023 को केन्द्रीय जल आयोग (मुख्यालय) में एक हिन्दी कार्यशाला का आयोजन किया गया जिसमें डॉ. शोभा रानी, संयुक्त निदेशक, हिन्दी शिक्षण योजना, नई दिल्ली द्वारा "राजभाषा कार्यान्वयन में हिन्दी

प्रशिक्षण का योगदान" विषय पर व्याख्यान दिया गया। इस कार्यशाला में आयोग के अधिकारियों/कर्मचारियों को व्याख्याता द्वारा हिन्दी प्रशिक्षण के महत्व एवं इसके विभिन्न पहलुओं से अवगत कराया गया।

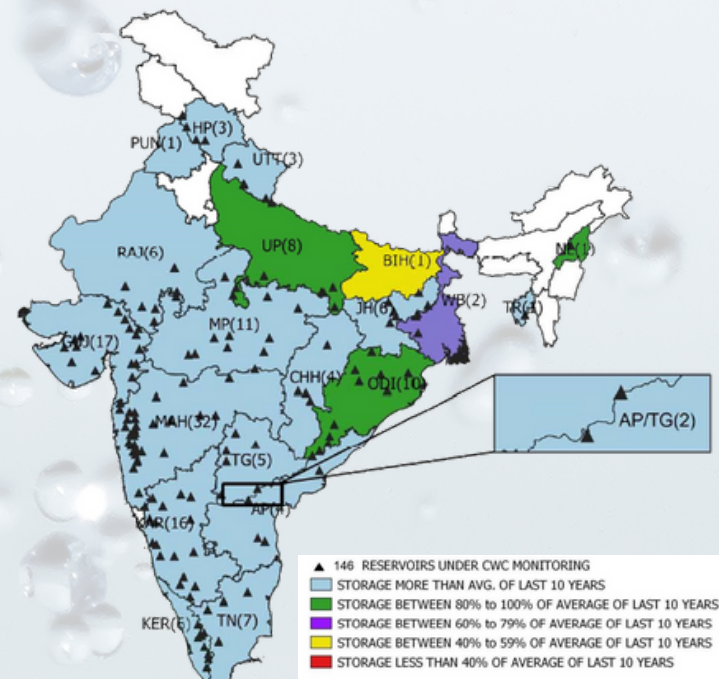
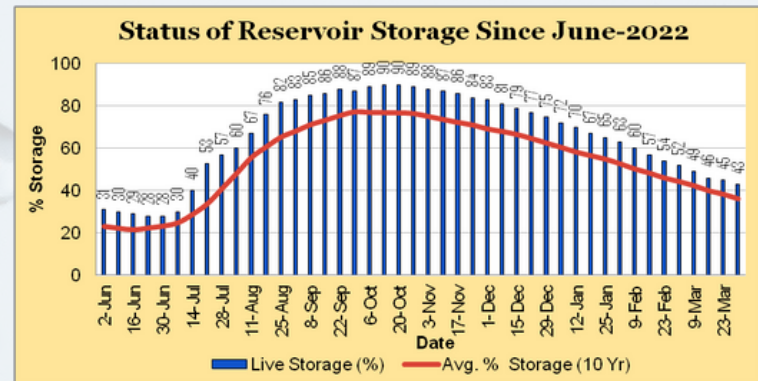
Reservoir Monitoring

Three more reservoirs, named below have been added in the month of March 2023 in CWC's Reservoir Storage Monitoring System (RSMS).

Name of Reservoir	State	Live Storage Capacity
Panshet (Tanajisagar)	Maharashtra	0.302 BCM
Bhama Askhed	Maharashtra	0.217 BCM
Darna Dam	Maharashtra	0.202 BCM
Total=		0.721 BCM

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 31.03.2023, the total live storage available in these reservoirs is 76.058 BCM which is 43% of total live storage capacity of these reservoirs. However, last year the total live storage available in these reservoirs for the corresponding period was 81.19 BCM and the average of last 10 years live storage was 64.534 BCM. Thus, the live storage available in 146 reservoirs as per the bulletin dated 31.03.2023 is 94% of the live storage of



Map Indicating Statewise Storage Position (As on 31.03.2023)

corresponding period of last year and 118% of storage of average of last ten years.

Financial Progress of Schemes as on 31.03.2023

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

Sl. No.	Scheme/Component Name	RE(2022-23)	Expenditure	Expenditure (in %)
1	Development of Water Resources information System (DWRIS)	159.3553	157.1637	98.62%
2	Investigation of Water Resources Development Schemes (IWRD)	11.640	11.6428	100.02%
3	Flood Management & Border Areas Programme (FMBAP)	11.3625	9.0703	79.83%
4	Direction & Administration (D&A)-Major Works and OE (SAP)	8.56	8.5556	99.95%
5	National Hydrology Project (NHP)	28.2716	26.8325	94.90 %
6	Dam Rehabilitation and Improvement Project (DRIP) Phase-II	25.00	23.71	94.84%

Gallery/ Azadi Ka Amrit Mahotsav



Swachhta Pakhwada was celebrated from 16th-31st March 2023. During the Pakhwada, a pledge was taken and cleanliness activities were held.



Painting Competition and Nukkad Natak Was organised on the occasion Of World Water Day. Prize distribution also took place.



Shri K. Vohra, Chairman, CWC and Shri Rishi Srivastava, Chief Engineer received a warm cultural welcome by the organizing committee at Sardar Vallabhbhai Patel International Airport for attending the second meeting of G20 Environment and Climate Working Group.



Chairman, CWC addressed a press conference briefing the press about the deliberations during the meeting.



In order to promote dam tourism, National Dam Safety Authority (NDSA) in collaboration with MTBO, CWC, Gandhinagar, is organizing a contact program on Sardar Sarovar Dam, Gujarat on 25-03-2023 under **Azadi Ka Amrit Mahotsav**.



A stakeholder consultation meeting under India European Water Partnership phase-II was organized under the Chairmanship of Shri DS Chaskar, Chief Engineer, MTBO on 16.03.2023 at CWC, Gandhinagar Gujarat



Nadi Utsav has been organized on Kalo River at Machhia Arjun Dam at Kaptipada Block, Mayurbhanj, Odisha on 13.03.2023 by M&ERO, CWC, Bhubaneswar. Shri A K Madhok, Deputy Director, CWC(HQ), New Delhi and Shri Sandeep, Assistant Director, CWC(HQ), New Delhi were attended the event.



Inspection of CAD works in Thaubal and Dholaitabi projects in Manipur by SE, CWC, Shillong

International Women Day celebration at Regional Offices



NBO, Bhopal



YBO, New Delhi



CWC, HQ, New Delhi



MSO, Bengaluru



KGBO, Hyderabad

- NHPC's Rs. 32K-cr hydel project near China border gets Centre's approval (Business Standard, 01.03.2023)
- Govt. to Develop 23 River Systems to Utilise Inland Waterways (The Economic Times, 06.03.2023)
- Water levels in 143 Reservoirs monitored by the Central Water Commission (Business Standard, 10.03.2023)
- 3 out of 4 rural homes without piped drinking water : NSSO (The Times of India, 15.03.2023)
- Water stress to hit India's food production by 2050, says report (The Morning Standard, 18.03.2023)
- Government takes the PPP route for restoration of Adyar river (The Hindu, 21.03.2023)
- 11.5 cr households now have tap water connections : Govt. data (Millennium Post, 23.03.2023)
- NGT directs Telangana not to proceed with Sitamma Sagar project without EC (The Times of India, 30.03.2023)
- Parliamentary panel calls for exchange of glacier-related data with Himalayan nations (Business Line, 30.03.2023)
- India must take water action to ensure economic growth (Deccan Herald, 31.03.2023)

History- Sarda Sahayak Project – A Boon for Eastern U.P.

Sarda Sahayak Project, the biggest irrigation project in Uttar Pradesh, has brought a new hope for the millions of poverty ridden and backward people of central and eastern part of the State. The commissioning in June 1974 of this prestigious Rs. 280.00 crore project has proved a turning point in their hitherto precarious existence.

The Project

Sarda Sahayak Project, envisages the construction of a barrage across the river Ghagra near Katarniaghat, district Bahraich, to divert the hitherto untapped supplies of this river for irrigation during non-monsoon months and another barrage across the river Sarda, near Lakhimpur, district Lakhimpur Kheri to utilize the supplies of river Sardas as well for augmenting and extending irrigation facilities in the Ganga-Ghagra Doab basins comprising the districts of Lakhimpur Kheri, Sitapur, Barabanki, Lucknow, Raebareli, Pratapgarh, Sultanpur, Faizabad, Jaunpur, Azamgarh, Allahabad, Varanasi and Ghazipur. The project would provide irrigation facilities to 18 lakh ha culturable command area with annual irrigation to 16.00 lakh ha.

Salient Features

The main works envisaged under the project are :

- (i) A barrage across the river Ghagra comprising 35 bays of 18 m each for diversion of river supplies into link channel.
- (ii) Link Channel, 28 km length with a capacity of 480 cu m per sec, to carry waters of the river Ghagra into the river Sarda.
- (iii) A barrage across the river Sarda comprising 20 bays of 18 m each for diversion of supplies of the river Ghagra and the Sarda into a Feeder Channel.
- (iv) A Feeder Channel 260 km long to deliver supplies into the various channels of Sarda Canal System.
- (v) Remodelling of distribution system. This would

involve increasing capacity from three times to eleven times of 6100 km length of existing channels and construction of 4900 km of new channels.

Stage-I

Work on Sarda Sahayak Project was commenced in 1968-69. In December 1971, the scope of the project was increased substantially and its construction programme was also accelerated in order to increase its benefits and bring them several years earlier. Stage I of the project, comprising completion of Barrage across the river Sarda, one of the major rivers of the State and Feeder channel from Head to 105 km with a large number of drainage crossings, regulators and bridges, was scheduled for commissioning by June 1974 to enable creation of an irrigation potential of 1.27 lakh ha on Daryabad Branch System during 1974-75 by the diversion of supplies of the river Sarda.

Stage-II

Stage II of the project which was proposed to be completed by June 1975, included the Barrage across the river Ghagra, Link Channel between the two barrages and Extension of Feeder Channel from 105 km to 119 km in order to bring the irrigation supplies to Barabanki Branch as well and also to utilize the hitherto untapped waters of the Ghagra for irrigation of rabi and early kharif crops.

An irrigation potential of 2.5 lakh ha was generated during 1975.

Sarda Canal System

The existing Sarda Canal System was commissioned in 1928 to provide protective irrigation to the areas lying in Ganga-Ghagra Doab in Central Uttar Pradesh by diverting the supplies of the river Sarda at Banbassa near the Himalayan foot-hills. The commanded area of this canal system is 24 lakh ha but due to limitations of

canal capacity, the system suffers from acute shortage of water through out the year and cannot provide intensive irrigation required for the high yielding varieties of crops. The average annual irrigation is only 33% of the culturable commanded area while it is only 19% in the lower reaches.

Ghagra Barrage

Ghagra Barrage comprises 35 bays of 18 m each to pass a design flood discharge from a catchment area of 45 518 sq km.

The pond level at the barrage would be 6 m higher than the dry weather water level. This high level is necessary to bring maximum possible area of the lower reaches of Sarda Canal System within the command of Sarda Sahayak Project.

This barrage was constructed in four working seasons during 1970-75.

The bridge over the barrage was completed by December 1975 and the river supplies are accepted to be diverted for rabi irrigation in January 1976 with the help of a diversion coffer dam across 24 bays of the barrage as only 11 gates were installed till then.

Link Channel

The 28 km long link channel has been designed as an unlined channel with 95 m bed width and 4.1 m water depth to deliver water to the left bank of the river Sarda just upstream of the barrage. The alignment of link channel lies entirely in the flood plain of rivers Ghagra and Sarda and crosses a number of drainages, two of which are major crossing across Suheli and Soti rivers. Though these rivers cross the link channel at a distance of 2 km they become one sheet of water during medium to high floods. Both these rivers have been siphoned below the canal through 24 barrels of 4.5 m x 4.5m R.C.C. box type section in the case of Suheli river and 12 barrels of same size for Soti river.

The link channel involving 100 lakh cu m of earthwork mostly below spring level and a large number of siphons and bridges, has been completed and commissioned in December 1975 as per schedule.

Sarda Barrage

Sarda Barrage, which comprises 20 bays of 18 m each has to function as a level crossing during non-monsoon season to carry the waters of river Ghagra, delivered by the link channel into the feeder channel,

while during monsoon, when the link channel is closed, it would function as a barrage for diverting river supplies into the feeder channel.

The barrage is located 160 km downstream of Banbassa barrage. The catchment of the river is 14 800 sq km at Banbassa and 17 680 sq km at this site. The river valley in this reach of 160 km is flat providing substantial valley storage.

An unique feature of the barrage is provision of a silt excluder in the right, two under-sluices bays (the total number of undersluice bays being five), and a silt ejector in the Feeder Channel, 300 m downstream of the Head Regulator.

The entire work of Sarda Barrage alongwith both the regulators and the guide bunds was completed by June 1973 in a single working season.

Feeder Channel

The feeder channel takes off from the right bank of lower Sarda Barrage and runs for 260 km up to its junction with Purwa Branch. It would deliver extra supplies to five main branches of the existing Sarda Canal System besides many other smaller channels.

The main systems fed are :-

- (i) Daryabad Branch at 105 km
- (ii) Barabanki Branch at 119 km
- (iii) Haidergarh Branch at 117 km
- (iv) Raebareli Branch at 171 km
- (v) Purwa Branch at the tail.

Conclusion

The Sharda Sahayak Pariyojana aims at irrigating culturable command area of 16,770 km² with 70 per cent irrigation intensity. The 258.80 km long feeder channel takes off from the right bank of Lower Sharda Barrage with discharge of 650 m³/s. Supplies are then fed into the different branches of the Sharda canal system, namely, the Dariyabad branch, the Barabanki branch, the Haidergarh branch, the bareilly branch and the Purwa branch.

Sharda Sahayak Pariyojana provides protective canal irrigation for cultivable area of 2 M ha to lakhs of farmers in 150 development blocks of 16 districts in eastern Uttar Pradesh. The project was commissioned in 1962, and completed in 1975 with an estimated cost of Rs. 1,300 crore.

(Source: Bhagirath January 1976)



Central Water Commission

An attached office of Dept. of Water Resources,
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2nd Floor(South), Sewa Bhawan, R K Puram, New Delhi-110 066
E-mail: media-cwc@gov.in

