

JALANSH



Shri Kushvinder Vohra
Chairman, CWC

Message

I am pleased to share with you important updates regarding the recent developments in dam safety and water management initiatives undertaken by our esteemed organization. As we navigate through the challenges of ensuring the safety and sustainability of our dams, it is crucial to stay informed and engaged in the implementation of key regulations and collaborative projects.

The Union Government's enactment of the Dam Safety Act (DSA) 2021 marks a significant step towards enhancing the surveillance, inspection, operation, and maintenance of specified dams across the country. I am delighted to inform you that the Act, notified on 14th December 2021, has officially come into effect from 30th December 2021. Multiple meetings were convened throughout the month to advance the implementation of the DSA, including discussions on the DRIP-II scheme.

Our organization, the Central Water Commission (CWC),

plays a pivotal role in the implementation of the Dam Safety Act and DRIP initiatives. We are actively involved in compiling situational reports on dam incidents and failures. Two dam incidents at Pondi Dam, Madhya Pradesh, and Malana-II Dam, Himachal Pradesh were reported during the period from 18th July 2023 to 31st July 2023.

Discussions were held with a Canadian delegation to explore avenues for climate-smart agriculture and a shift to less water-intensive crops keeping in view of issues related to C.C.

Furthermore, the Ministry of Economic Cooperation and Development (BMZ), Government of Germany, is collaborating with the Ministry of Jal Shakti on the Technical Cooperation Project "Support to Ganga Rejuvenation II (SGR II)." This project, co-funded with EU support, aims to implement the India-EU Water Partnership (IEWP) Action, emphasizing sustainable water management practices.

CWC is expediting Investment Clearance proposals for major, medium extension, renovation & modernization (ERM) of Projects and flood control projects. The 18th meeting (10.07.2023) of the Investment Clearance Committee of DoWR, RD & GR, Ministry of Jal Shakti

recommended a total of 8 projects from Uttarakhand, Himachal Pradesh, Jammu & Kashmir, West Bengal, and Arunachal Pradesh.

Additionally, the Advisory Committee on Irrigation, Flood Control, and Multipurpose Projects of DoWR, RD & GR, Ministry of Jal Shakti, accepted a total of 12 projects/schemes from the governments of Telangana, Uttar Pradesh, Maharashtra, Punjab, Madhya Pradesh, Arunachal Pradesh, Uttarakhand, and Bihar in its 152nd meeting held on 14.07.2023.

These developments underscore our unwavering commitment to ensuring the safety of dams, promoting sustainable water management practices, and fostering collaborations for the greater good. I encourage each of you to actively participate and contribute to these initiatives, as together, we can play a vital role in shaping the future of water resources in our country.

Dr. Vohra



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NDSA AND DRIP

National Dam Safety Authority (NDSA)

Meeting of National Dam Safety Authority (NDSA) was held under the chairmanship of Shri Sanjay Kumar Sibal, Chairman, NDSA and Member (D&R), CWC on 04.07.2023 at Sewa Bhawan, CWC to discuss various matters like Recruitment Rules (RRs) of post-up to Director and below, methodology for engaging M. Tech students graduating in the field of Dam Safety from IIT Roorkee/IISc Bangalore on a contract basis, and their remuneration, Criterion for

Discussion on various issues related to DRIP-II Scheme and NDSA

Shri Sanjay Kumar Sibal, Member (D&R) attended the meeting held under the chairmanship of Secretary, DoWR at Conference Room, DoWR, SSB on 17.07.2023 to discuss various issues related to DRIP-II Scheme and NDSA. Some of the agenda

Meeting to resolve the issue of adopting suitable methodology for seepage treatment of Dimbhe Dam of Maharashtra under DRIP – II

A meeting was held under the chairmanship of Shri Sanjay Kumar Sibal, Member (D&R), CWC between the officials of CWC, Maharashtra WRD and World Bank to resolve the issue of adopting suitable methodology for seepage treatment of Dimbhe Dam, Maharashtra under DRIP – II on 18.07.2023 in the chamber of Member (D&R), CWC in Sewa Bhawan, New Delhi.

Dimbhe Dam, proposed to be rehabilitated under DRIP-II by Maharashtra WRD, faces heavy seepage problem. The World Bank has recommended installing Geo membrane on u/s face of the Dam for controlling the heavy leakage. However, the DSRP and Project Authorities were of the opinion to carry out grouting to stop the seepage as a techno-

engagement of outsourced professionals/consultants, Status of Annual Report of NDSA, Matter regarding Office Accommodation for NDSA, distribution of posts approved by DoE between HQs and Regional Offices, assessment of requirement of outsourcing staff in NDSA, entitlement of sitting fee and TA/DA to non-official members of two sub-committees of NCDS etc.

points discussed in the meeting were Organisation of International Conference on Dam Safety, Setting up of Centers of Excellence (CoE) for Dam safety, Creation of Posts of NDSA, Implementation of DHARMA etc.



economic solution.

Member (D&R) who is also the Chairman (Technical Committee – DRIP) concluded that Maharashtra WRD may drop the Dimbhe project from DRIP, and Govt. of Maharashtra may propose any other dam for rehabilitation under DRIP in place of Dimbhe.

First meeting of Steering Committee for organizing the International Conference on Dam Safety (ICDS) 2023

Shri Sanjay Kumar Sibal, Chairman, NDSA and Member (D&R), CWC attended the First meeting of Steering Committee for organizing the International Conference on Dam Safety (ICDS) 2023 which was held on 21.07.2023 at Shram Shakti Bhawan, New Delhi. Special Secretary, DoWR, RD & GR chaired the review meeting for discussing various issues in connection with organizing International Conference on Dam Safety at Jaipur. Officials from Ministry of Jal Shakti, Central Water Commission, National Dam

Safety Authority, World Bank, WAPCOS, CGWB and Govt. of Rajasthan had participated in the meeting. Shri Vijai Saran, Chief Engineer DSO and Project Director, DRIP; S.S. Bakshi, Director, DSR attended the meeting from CPMU, DRIP. During the meeting, the various agenda points for organizing ICDS at Jaipur were discussed and decisions have been taken thereon, including Venue of Conference, partners of Conference, fund requirements, formation of various committees, website and registration etc.

Meeting with the states having more than 100 Dams

Meeting under the chairmanship of Shri Sanjay Kumar Sibal, Chairman, NDSA was held on 27.07.2023 in the chamber of Chairman, NDSA and Member (D&R) with the states having more than 100 Dams through hybrid mode. The agenda points discussed in the meeting were-

- Updating List of Specified Dams for preparation of National Database and Updation of NRLD 2019.
- Status of Pre-Monsoon Inspections 2023-24.
- Budget Provision for SDSOs and O&M of Dams.
- Plan for remediation of Category-II Dams.
- Status of establishment under Dam Safety Units of dams.
- Status of Maintenance of Log Books of all the dams.



- Status of O & M manual and whether O & M manual followed or not regarding specific dams.
- Status of all technical documentation on hydrology, dam foundation, and structural engineering of the dam
- Status of Annual reports, and emergency action plan.

Technical Committee for organizing the International Conference on Dam Safety (ICDS) 2023

Shri Sanjay Kumar Sibal, Member(D&R) & Chairman, NDSA attended the first meeting of Technical committee for organizing the International Conference on Dam Safety (ICDS) 2023. The meeting was held under the chairmanship of Shri Kushvinder Vohra, Chairman, CWC on 28.07.2023 in CWC in Hybrid mode. Shri Vijai Saran, Project Director (DRIP), Shri S. D. Sharma, CE Design (E&NE), Shri Anil

Jain, CE Design (NW&S) and other officers from NDSA/DRIP/CWC attended the meeting. The representatives from World Bank, IIT Roorkee, MNIT Jaipur and IISc Bengaluru also participated. Various agenda points including program schedules, theme of conference, chair & co chair for each Technical session, brochure & website etc. has been broadly discussed and decision have been taken thereon.

Meeting on various issues regarding implementation of DRIP Phase-II&III

Chief Engineer (SPMU-DRIP, Andhra Pradesh WRD), Project Director (SPMUDRIP, Andhra Pradesh WRD) and Executive Engineer (SPMU-DRIP, Andhra Pradesh WRD) visited CPMU-CWC on 12.07.2023. The officials of SPMU-DRIP, Andhra Pradesh

met Shri Vijay Saran, Chief Engineer, DSO and Shri Samir Kumar Shukla (Director, FE&SA Directorate, CWC). During meeting, various issues regarding implementation of DRIP Phase-II&III were discussed.

Situational report of dam incidents/failure

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

for the period of 18.07.2023 to 31.07.2023 has been submitted to the office of Hon'ble Ministry of Jal Shakti.

Two dam incidents at Pondi dam, Madhya Pradesh

and Malana-II dam, Himachal Pradesh have been reported by Project Authorities and NDSA during the period of 18.07.2023 to 31.07.2023. The details in

respect of these dam incidents as received are as under:-

A. Pondi Jaitgarh Dam, district. Damoh, Madhya Pradesh

Project Authorities informed that due to heavy rainfall between 23.07.2023 to 24.07.2023, the water in the reservoir had reached to FTL abruptly and spilled out from waste weir with water column of approximate one feet over the crest. In the evening of 24.07.2023 at 6.00 pm seepage from the dam (just downstream of boulder toe near canal sluice outlet) was reported by the farmers. Executive Engineer with his team tried to stop the seepage or erosion of soil by constructing inverted filter but they were not successful as seepage was increasing at very fast rate. Looking to the heavy seepage and

sliding of downstream earth of the dam, Executive Engineer immediately expressed possibility of dam breach with heavy flood to the Collector, Damoh who immediately directed for evacuation of villagers. Fortunately, villagers of both downstream villages were evacuated in the night of 24.07.2023. In the early morning of 25.07.2023, 5:00 am dam breached between RD 220 to 270 m. No human and animal loss is reported. The officials of Dam Safety, WRD, Madhya Pradesh inspected the dam on 26.07.2023.

B. Malana -II HEP, district Kullu, Himachal Pradesh

National Dam Safety Authority addressed to SCDS & SDSO, Himachal Pradesh on the matter of overtopping of Malana-II dam on Malana Khad due to jamming of all the Radial gates and requested to submit status report/detailed report.

SDSO, Himachal Pradesh informed that Malana-II dam was over topping as both the radial gates had been jammed because of slush and boulder as reported by Dam authorities. The water was flowing over the dam and scouring had taken place on left bank which eroded the approach to dam. In case the discharge increases there can be possibility of dam breach.

Directorate of Energy, Govt. of Himachal Pradesh, vide e-mail dated 29.07.2023 informed that in line with the prevailing conditions at Malana-II Dam where in the stuck gates have not been opened so

far. A team has been formed to visit the dam Site on 30th July 2023 in order to examine the situation and to have onsite assessment of all other possibilities as can be applied looking to constraints and other aspects.

Further as per media reports, the Kadam reservoir, Telangana received heavy inflows from upstream and the water level reached 700 feet-level and touched the full capacity of 7 TMC water. Four out of the 18 gates of Kadam irrigation project got stuck and could not be lifted on 21.07.2023 to discharge excess water. A technical team of the Dam Safety Review Panel (DSRP) and State Dam Safety Organisation (SDSO) inspected the dam site on 28.07.2023. O/o Member (Disaster & Resilience) NDSA has requested project authorities to submit their report.



MEETINGS WITH FOREIGN DELEGATION

Discussion on the future of the EU-India Water Partnership, UN Water Agenda, Water at United Nations Environment Assembly (UNEA) and with the Canadian delegation

The meeting held discussions on Growing connections between water management and climate change, climate-smart agriculture/ shift to less water-intensive crops, the need to bring in

Indian States within the IEWP/IEWI, via existing or new State Program Management Groups, urban hydrology and the impact of climate change on the water sector.

Meeting with GIZ team to discuss the study tour to EU, training on RIBASIM & SWAT and support to ICID Congress

The Ministry of Economic Cooperation and Development (BMZ), Govt of Germany is collaborating with Ministry of Jal Shakti on Technical cooperation project "Support to Ganga Rejuvenation

II (SGR II)". One component of the project co-funded with the EU-supports the implementation of the India-EU Water Partnership (IEWP) Action.

As a part of the SGR II, it was proposed to organize a

study tour to Belgium and Netherlands so as to equip Indian delegates with a comprehensive understanding of the integrated approach to urban flood management. Ultimately, this experience will support the development of an improved management strategy for Indian cities, leading to more resilient and effective urban flood management.

Further, capacity building of Indian officials from various government agencies in River Basin Simulation Model (RIBASIM) and SWAT has been proposed as a part of the project.

Central Water Commission invited the IEWP Action to participate and contribute towards the upcoming 25th ICID Congress and 74th IEC Meeting (Nov 02, 2023 - Nov 08, 2023) at Visakhapatnam (Vizag),

Andhra Pradesh, India. IEWP Action proposed to organise and extend support in various activities of the congress by bringing in European expertise and experiences to exchange on the topics both relevant to IEWP Action Plan and the scope of the congress. IEWP also proposed to invite young professions from Europe under the Young-Professional Training Program of the congress. Further, IEWP Action will also host a side-event during the congress to present the activities, success-stories, and learning of the IEWP Action.

The meeting of Chairman (CWC) with GIZ team discussed on various issues related to the aforementioned study tour, training on RIBASIM & SWAT; and support to ICID Congress.



MEETING REGARDING PROJECT

Kanhar Dam Project (U.P.)

Shri Sanjay Kumar Sibal, Member (D&R) attended the meeting held under the Chairmanship of Shri Kushvinder Vohra, Chairman Central Water Commission in his chamber on 18.07.2023 at 11:15 hrs to discuss the issues concerning Kanhar Dam Project (U.P.), particularly in light of cracks developed on the crest of the Earthen reaches of the dam on both the flanks. Shri Vivek Tripathi, CE Design(N&W) and Shri Somesh Kumar, Director, Embankment (N&W) from CWC and officers from WRD, Government of U.P attended the meeting. Some of the important decisions taken in the meeting included carrying out Freeboard studies in Embankment (N&W) Directorate, CWC for ascertaining the adequacy of the freeboard provided

for the entire Kanhar Dam, a Geophysical survey/investigation is to be carried out by project authorities through a recognized and experienced agency in order to have a clear picture of the extent and pattern of cracks on the crest of the Earthen dam on both left and right flanks, to survey the downstream region of the dam to assess the population likely to be affected in the event of very high releases through the spillway during flood situations, preparation of an Emergency Action Plan (EAP) by project authorities etc. It was decided in the meeting, to form an expert team comprising officers from CWC, CSMRS, and designers of the Kanhar Dam project, and State SDSO for inspection of the Kanhar Dam and to submit a Report on overall status of the dam.

Kishanganga and Ratle HEPs

Shri Sanjay Kumar Sibal, Member (D&R) attended the meeting held under the chairmanship of Shri Kushvinder Vohra, Chairman, CWC to finalise Memorial Chapter (Chapter-V-Designs) with regard

to ongoing IWT issues of Kishanganga and Ratle HEPs on 01.07.2023. Continued meetings were held in CWC on 10.07.2023, 11.07.2023, 13.07.2023 and 14.07.2023 regarding the same.

Reoli Dugli HE Project, Uttarakhand

Reoli Dugli HE Project has an issue of unusually large diameter of proposed surge shaft which is 39.5m with 43.8m diameter dome which may pose stability and safety concerns during execution. There are no examples of providing such a large underground Surge Shaft and safety of the structure is big concern, as such, CWC is not in favour of such big size Surge Shaft. Alternative with twin Surge

Shaft with twin HRT and alternative with open surge shaft by modifying the layout were suggested to project authority. Now, SJVNL envisaged layout of Reoli Dugli HEP with twin Head Race Tunnel (HRT) with twin surge shaft. To discuss the layouts, a meeting was convened between officials of CWC and SJVNL on 27.07.2023 in Central Water Commission, New Delhi.

Polavaram Irrigation Project

Shri Sanjay Kumar Sibal, Member (D&R) attended the meeting to review the status of Polavaram Irrigation Project which was held on 03.07.2023. The meeting was chaired by Shri Gajendra Singh Shekhawat, Hon'ble Minister, Ministry of Jal Shakti, Govt of India.

Further, another meeting was held in physical mode on 10.07.2023 to discuss way forward for diaphragm wall (D-wall) of ECRF dam of Polavaram irrigation project. The meeting was chaired by Smt. Debashree Mukherjee, Special Secretary, DoWR, RD&GR and the meeting was taken for deciding on key technical and design issues of PIP. Shri Sanjay Kumar Sibal, Member (D&R) attended the meeting. Moreover, on 24.07.2023, a meeting held under the chairmanship of Shri Kushvinder Vohra, Chairman, CWC to review the status of upstream coffer dam at Polavaram Irrigation Project, Andhra Pradesh. The meeting was attended by Shri Sanjay Kumar Sibal, Member (D&R) and senior officers from Central Water Commission, Polavaram Project Authority, Water Resource Department (WRD) of Andhra Pradesh, CSMRS, WAPCOS and other concerned agencies involved in design and construction of Polavaram Irrigation Project. Deliberations were held on present status of water level, seepage across the upstream coffer dam, accessibility of the working area during monsoon season and way ahead.

22nd Meeting of the Dam Design Review Panel:

Shri. Sanjay Kumar Sibal, Member (D&R) attended the Twenty-Second meeting of the Dam Design Review Panel (DDRP) of the Polavaram Irrigation



Project (PIP) which was held on 30th July 2023. Shri A.B. Pandya, Chairman of DDRP, chaired the meeting through VC and other panel members accompanied by officers from PPA, CWC, WRD-GoAP, CSMRS, NHPC, Executing agencies, and Consultants of WRD attended the meeting. Shri. Sanjay Kumar Sibal, Member D&R elaborated to the panel members on the agenda items to be discussed in the meeting. Seepage issue in the main dam pit area and D-wall construction in the Gap-II ECRF dam. It was decided in the meeting that, WRD shall prepare a detailed report duly incorporating.

- The seepage analysis with and without cut-off, with clay blanket on the u/s of USCD using the permeability values estimated by the HPT test and available piezometer data.
- Possible remedial measures for USCD, including their implementation strategy and efficacy after consulting an expert agency.
- Detailed proposal for water depletion from the dam pit area, including technical details on their soundness.

Timelines for construction of the main dam, including D-Wall, duly considering the available working season, men, and material availability.

North Koel Reservoir Project

A meeting was taken by Secretary, DoWR, RD & GR, Ministry of Jal Shakti on 13.07.2023 and subsequently on 27.07.2023 to discuss the key issues of the project for finalization of Cabinet Note in respect of balance works North Koel Reservoir Project. There were discussion on key aspects of the project like status of land acquisition, irrigation planning of the project, progress of various components of the balance works of the project by the WAPCOS, One time R&R package, work plan for the balance work, CA releases for the project and its utilization etc for finalizing the cabinet Note. The officers from FM Wing DoWR, CWC HQ, WAPCOS participated in the meeting.

Another meeting was taken by Hon'ble Minister, Ministry of Jal Shakti on 25.07.2023 to review the

progress of North Koel Reservoir Project. During the meeting, Hon'ble Minister directed the following to be done on urgent basis:

- (1) The officials of CWC and WAPCOS should immediately visit the project site and submit a report regarding quality control aspect in works done in Right Main Canal (RMC) in Jharkhand.
- (2) Regular monitoring including aspects related to quality control of the project needs to be ensured by CWC (In this regard Sub-committees have already been constituted).
- (3) WAPCOS should make a work plan for installation of Gates at DAM site till Feb 2024 as the approval of Cabinet Note for the balance work of the project is in advance stage.



TRAINING

Glacio-Hydrological Modelling under Changing Climate in the Himalayas

The Swiss Agency for Development and Cooperation (SDC), in collaboration with the Central Water Commission (CWC) organized a training program on "Glacio-Hydrological Modelling under Changing Climate in the Himalayas" from July 3rd to July 7th, 2023 in New Delhi.

The training program aimed to assess the impacts of the accelerating rate of glacial melt in the Himalayas, which poses serious challenges to the

management of freshwater ecosystems river basins. During the welcome address, Chairman (CWC) and Ex-officio Secretary to the Govt. of India, stressed upon growing demand for fresh water across all sectors, including agriculture, industry, and domestic use. In light of this, it is crucial for decision-makers to assess the climate change-induced variability and uncertainty in water availability in the Himalayan region & better manage the water resources in the wake of these challenges.



VISIT/INSPECTION

Yamuna Barrage at ITO



A visit was undertaken by officers from CWC along with officers from Irrigation and Water Resources Department, Haryana and Irrigation & Flood Control Department, Delhi on 27.07.2023 to Yamuna Barrage at ITO, New Delhi. Shri Sharad Chandra, Director, FFM Dte, Shri Satish Kamboj, Director, Gates Design (N&W) Dte., Shri Samir Kumar Shukla, Director, BCD (N&W) Dte. and Shri Ghanshyam Patel, Deputy Director, Gates Design (N&W) Dte. were present during the visit.

Nanak Sagar Dam, Uttarakhand



The Superintending Engineer, Irrigation Division, Bareilly requested CWC to inspect Nanak Sagar Dam and give suggestions on the present issues of seepage and boiling in the Nanak Sagar reservoir. An inspection visit by a joint team of officers from CWC & CSMRS was carried out on 13-14th July, 2023 on Nanak Sagar Dam, Uttarakhand to give suggestions on the issue of seepage and boiling observed at downstream of dam.

Kanhar Irrigation Dam Project, Uttar Pradesh



Shri Vivek Tripathi, Chief Engineer, Design (N&W), Shri Somesh Kumar, Director, Embankment (N&W) and Shri Kamlesh Jain, Deputy Director, Emb(N&W) visited Kanhar Irrigation Dam Project (U.P.) with officers from CSMRS & SDSO from 27 to 29 July 2023 in the light of the technical issues related to cracks observed at top of Earthen portion of the dam.

Upper Tunga Project, Karnataka

A monitoring team from MSO, Bengaluru headed by Shri Virendra Sharma, Chief Engineer accompanied by Dr. J Harsha, Director and Shri Pratap Shelke, DD visited the Upper Tunga Project, Karnataka as a 1st monitoring visit in FY 2023-24 under PMKSY-AIBP & CADWM from 17th to 19th July 2023.

The team held a review meeting with project officials and inspected the various AIBP & CADWM works executed as of July 2023. The team also visited the bottleneck points hindering the completion of work and advised the project authorities for speedy and time-bound completion of work.



Gosikhurd (Major-NP) Irrigation Project, Maharashtra

The Gosikhurd (Major-NP) Irrigation Project has been constructed on the river Wainganga, a major tributary of Godavari river, in Bhandara district of Maharashtra. The project has been included under PMKSY-AIBP during 2008-09. The project has been planned to provide irrigation to an area of 19000 ha ICA (250800 ha UIP). Central Assistance of ₹796.105 crore has been released to the project.

Shri Neeraj Kumar Manglik, Chief Engineer, MCO, CWC, Nagpur alongwith Director & Deputy Director Monitoring Dte., Nagpur visited the project during 11.07.2023 to 12.07.2023 for monitoring the physical and financial progress of the project components included under PMKSY-AIBP & CADWM. Chief Engineer, Gosikhurd Project and officials of Water Resources Department accompanied during the visit.



OTHER ACTIVITIES OF CWC

DEA-AIIB Tripartite Meeting (New Delhi)

7th Tripartite Portfolio Review Meeting (TPRM) of Asian Infrastructure Investment Bank (AIIB) assisted projects scheduled to be held on 28.07.2023, New Delhi. Shri Vijai Saran, Chief Engineer DSO and Project Director, DRIP, Shri S.S. Bakshi, Director, DSR and Shri Saurabh Sharan, Dy. Director, DSR also

attended the meeting. Project Director, DRIP gave a brief presentation regarding the progress and issues pertaining to the DRIP-2. The matter of loan sharing arrangement between the World Bank and AIIB was one of the important items which were deliberated in detail.

Present Issues under discussion CWMA and Release Plan and Situation of Cauvery Basin

A meeting was taken by Hon'ble Minister, MoJS on 18.07.2023 with the officers of CWC, CWMA and other concerned officers. Chairman, CWC attended the meeting from CWC. In the meeting, overall hydro-meteorological situation in Cauvery Basin and

issues raised by Govt. of Tamil Nadu regarding release of Cauvery water were discussed in detail and CWMA was asked to keep reviewing the hydro-meteorological situation in the Cauvery Basin at regular interval and try to evolve a distress sharing formula.

18th Meeting of Investment Clearance Committee

The 18th meeting of Investment Clearance Committee of DoWR, RD & GR, and Ministry of Jal Shakti was held on 10.07.2023 under the Chairmanship of Secretary, DoWR, RD & GR, MoJS. The meeting was attended by the representatives

from Govt. of Uttarakhand, Himachal Pradesh, Jammu & Kashmir, West Bengal & Arunachal Pradesh besides CWC & GFCC. Total 8 projects were recommended for Investment Clearance in the meeting. The details of the projects are given in the table.

S No	Name of the Project	State	Category	Cost (Rs) in crores & Price Level	Benefits
1	Phina Singh multipurpose project, Himachal Pradesh	Himachal Pradesh	Multipurpose project	Rs 643.68 crore at price level of March 2022	CCA- 4025 ha Power - 1.88 MW
2	Flood protection measures for Swan river & its tributaries joining Beas basin in tehsil Amb, district Una,	Himachal Pradesh	Flood control	Rs. 339.25 crore at price level of April, 2021	Area Protected : 510.18 ha Population Benefitted : 14744
3	Construction of protection works at various spots between village Kheri to Sai on left and right side of Aik Nallah in tehsil Bishnah and Suchetagarh, downstream of NH-1A, Ph.-I	J&K	Flood control	Rs 23.05 crore at price level of 2020	Area Protected : 140 ha Population Benefitted : 1500
4	Anti-erosion work to the right bank of river Padma at area of responsibility (AOR) of border outpost (BOP) Atrosia and Renu for a total length of 1,830.00 m in Murshidabad district	West Bengal	Flood control	Rs. 73.83 crore @ price level of 2022	Area Protected : 2500 ha Population Benefitted : 35000
5	Anti erosion work on both bank of Dollung river to protect agricultural land and village of Dollungmukh area in Kamle district	Arunachal Pradesh	Flood control	Rs. 18.26 crore at price level of March 2021	Area Protected : 200 ha Population Benefitted : 3500
6	Flood protection work near general ground at upstream side of Decorai irrigation project at Seijosa in Pakke Kesang districts	Arunachal Pradesh	Flood control	Rs. 82.16 crore at price level of January, 2022	Area Protected : 550 ha Population Benefitted : 12474
7	Project for construction of flood protection work for Thathyur and Bhawan from Aglad river in Tehri Garhwal,	Uttarakhand	Flood control	Rs. 30.22 crore at price level 2021	Area Protected : 29.70 ha Population Benefitted : 3750
8	Flood Protection Scheme on both banks of river Hinwal for protection of Poolchatti and Rattanpani villages of district Pauri Garhwal	Uttarakhand	Flood control	Rs 22.23 crore at October 2022 price level	Area Protected : 103 ha Population Benefitted : 8860

The 4th meeting of working group for reorientation of PMKSY-AIBP and CADWM Scheme

The 4th meeting of the Working group for re-orientation of PMKSY-AIBP and CAD&WM was held on 28.07.2023 under the chairmanship of Member (WP&P).

In this meeting the inputs from POMIO, CWC; PAO,

CWC; NMCG, Department of Drinking water and sanitization and CADWM of DoWR, RD&GR has been received. In this meeting it was decided that the Draft report to be prepared on the basis of inputs received from different organizations / departments.

152nd Advisory Committee Meeting

The 152nd meeting of Advisory Committee of DoWR, RD & GR for consideration of techno-economic viability of Irrigation, Multipurpose and Flood Control Projects was held on 14.07.2023 under the Chairmanship of Secretary, Department of Water Resources, River Development & Ganga Rejuvenation. The meeting was attended by the representatives from Govt. of Telangana, Uttar Pradesh, Maharashtra, Punjab, Madhya Pradesh, Arunachal Pradesh, Uttarakhand & Bihar besides CWC, GRMB, CGWB, GFCC, MoTA, MoEF&CC, CEA, Niti Ayog, MoF etc.



Total 12 (twelve) projects/schemes, as per the details below were accepted by the Advisory Committee in the meeting:

Sl. No.	Name of the Project	State	Category	Estimated cost	Benefits
1	Nira Deoghar Irrigation Project	Maharashtra	Major Irrigation	Rs 3591.46 Cr at June, 2022 PL	CCA- 62706 BC Ratio: 1.55
2	3 rd RCE of Shahpur kandi Dam Project	Punjab & J&K	Major Irrigation	Rs 3394.49 Cr. (at Oct 2022 PL)	CCA- 37173 Ha. BC Ratio: 1.65 Power : 206 MW
3	Kaddem-Gudem Lift Irrigation Scheme (Project completed in 2015)	Telangana	Major Irrigation	Rs. 138.45 Cr (at March 2015 PL)	CCA-12,141 Ha. BC Ratio:1.74
4	Extension Renovation and Modernisation of Sanjay Sarovar Project District Seoni and Balaghat	Madhya Pradesh	Major Irrigation	Rs. 332.54 Cr at March 2023 PL	CCA- 81,829 ha. BC ratio : 1.56
5	Modikuntavagu Irrigation Project	Telangana	Medium Irrigation	Rs. 500.2553 Cr (at 2021-22 PL)	CCA- 5500 Ha. BC Ratio: 1.503
6	RCE of Bhaunrat Dam Project	Uttar Pradesh	Medium Irrigation	Rs. 1252.12 Cr (at March, 2022 PL)	CCA- 9850 Ha. BC Ratio: 1.14
7	Anti-erosion work over pachin river from DPS bridgepoint Rechi to Pagatara under Itanagar	Arunachal Pradesh	Flood Control	Rs 88.36 Cr (at Nov 2022 PL)	Population benefitted- Approx. 3000 persons Area benefitted- Approx. 450 Ha BC ratio-1.41
8	Erosion control and Flood management over Sibokorong river under Pasighat sub-division	Arunachal Pradesh	Flood Control	Rs 35.50 Cr (at Dec 2022 PL)	Population benefitted- Approx. 12500 person Area benefitted- Approx. 120 Ha BC ratio-1.82
9	Anti-erosion work over Senki river at Chandranagar, Itanagar	Arunachal Pradesh	Flood Control	Rs 73.21 Cr (at Nov 2022 PL)	Population benefitted- Approx. 18000 person Area benefitted- Approx. 68 Hectare BC ratio-1.38
10	Raising, Strengthening and Puccikaran of Left Kamla Balan embankment & Right Kamla Balan embankment Phase-I (Pipraghat Bridge to Thangha bridge) LKBE between Km27.10 to km 66.30 & RKBE between km23.20 to km 64.00.	Bihar	Flood Control	Rs 325.1232 Cr (at 2019 PL)	Population benefitted- 1200000 nos. Area benefitted-48000 Ha BC ratio- 1.19
11	"Raising, strengthening and Puccikaran of left and right Kamla Balan embankment (Phase-II) from km 66.300 (Fatki Kutti) to km 92.500 (Punach) of L.K.B.E. and from km 64.00 (Thengha) to km 94.00 (Palwa) of R.K.B.E.	Bihar	Flood control	Rs 297.07 Cr (Price Level : 2022 PL)	B.C. Ratio : 1.98 Benefitted population in nos : 1200000 Benefitted area in ha : 72300 ha
12	Flood protection work along right bank of Kali river at Army Camp-2 battalion campus Galati in Block Dharchula, District Pithoragarh, Uttarakhand	Uttarakhand	Flood Control	Rs. 40.601 Cr (PL: October, 2022)	B.C. Ratio : 1.45 Benefitted population in nos : 600 nos. Benefitted area in ha : 14.0 Ha

Financial Progress of Schemes as on 31.07.2023

(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	43.9259	27.09%
2	Investigation of Water Resources Development Schemes (IWRD)	20.000	3.827	1.91%
3	Flood Management & Border Areas Programme (FMBAP)	20.310	3.321	16.35%
4	Direction & Administration (D&A)-Major Works and OE (SAP)	11.000	1.5376	13.98%
5	National Hydrology Project (NHP)	31.58	1.9644	6.22%

Fourth meeting of the organizing Committee for organizing the 25th ICID Congress and 74th IEC Meeting

The Fourth meeting of the Organizing Committee was held on 25.07. 2023 in the Hybrid mode under the chairmanship of Shri Kushvinder Vohra, Chairman CWC & INCID to discuss progress regarding the preparations for the ICID Events,

prevalence of parallel channels of Communication, way forward and any other issues.

The Committee discussed various issues pertaining to Exhibition and Venue finalization, Schedule, Sponsorship arrangement, financial matters etc.

Flood Situation in the country -June 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 July 2023, total 2382 (1779 level+603 Inflow) flood forecasts were issued, and 2207 (1642 Level+565 Inflow) forecasts were within permissible limit with a 92.65 % percent accuracy. 135 nos Red Bulletin (for Extreme flood situation) and 129 nos Orange Bulletin (for severe flood situation) were issued till 31st July 2023 from Central Flood Control Room.

Summary of Flood Situation during 01.05.2023 to 31.07.2023

Extreme Flood Situation

4 FF station observed Extreme Flood Situation.

S. No.	State	District	River	Station	Period	
					From	To
1	NCT Delhi	North Delhi	Yamuna	Delhi Railway Bridge	12/07/2023	15/07/2023
2	Uttar Pradesh	Budaun	Ganga	Kachlabridge	14/07/2023	15/07/2023
					16/07/2023	22/07/2023
					29/07/2023	31/08/2023
3	Assam	Sivasagar	Dikhow	Sivasagar	17/07/2023	17/07/2023
4	Telangana	Kumuram Bheem	Wardha	Sirpur Town	24/07/2023	24/07/2023
					29/07/2023	29/07/2023

31 flood monitoring station observed Extreme flood situation.

Severe Flood Situation

37 FF Stations observed Severe Flood Situation in Assam, Bihar, Uttar Pradesh, Andhra Pradesh, Telangana and West Bengal.

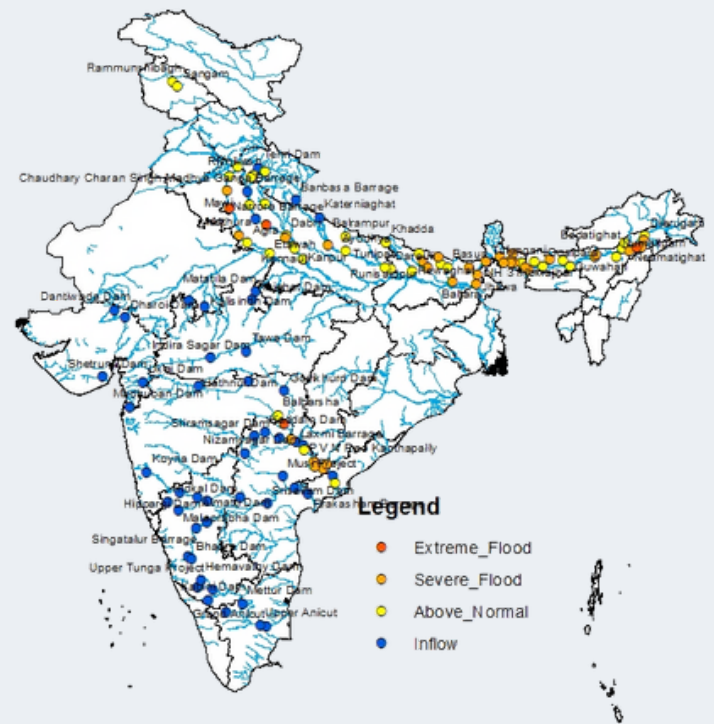
35 monitoring Stations observed Severe Flood Situation in Assam, Bihar, Uttar Pradesh, Kerala, Karnataka, Tripura, Uttarakhand, Jammu & Kashmir, Maharashtra, Madhya Pradesh, Telangana and Dadra & Nagar Haveli.

Above Normal Flood Situation

40 FF Stations in Assam, Bihar, Jammu and Kashmir, Rajasthan, Uttar Pradesh, West Bengal, Himachal Pradesh, Haryana, Andhra Pradesh, Telangana, Kerala, Uttarakhand and Maharashtra observed Above Normal Flood Situation.

Reservoirs having Inflow above threshold limit

51 reservoir received inflows above their threshold limit in Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamilnadu, Telangana, Uttar Pradesh and Uttarakhand.



Water Sector-News

Excessive groundwater extraction has shifted the Earth's axis, finds study (The Indian Express, 01.07.2023)

Water Levels at Less Than Half in 75% of Reservoirs (The Economic Times, 05.07.2023)

Hope India implements IWT in 'good faith' : Pakistan (The Hindu, 07.07.2023)

Hague court rejects India's objections over water treaty (Business Standard, 08.07.2023)

Water levels in reservoirs in west, south India less than last year (Business Standard, 14.07.2023)

Delhi flood: No apex panel meeting in 2 yrs. (The Tribune, 17.07.2023)

More than court action, revisit the Indus Waters Treaty (The Hindu, 20.07.2023)

46% of rivers in country polluted (The Tribune, 21.07.2023)

PRLIS: State makes fresh presentation – CWC team to visit SRSP (Telangana Today, 26.07.2023)

Central team to visit Telangana, assess rain and flood damages (The Times of India, 31.07.2023)

Gallery



आजादी के अमृत महोत्सव के अंतर्गत बांध पर्यटन को बढ़ावा देने के लिए केंद्रीय जल आयोग, एनडीएसए एवं टीएचडीसी ने दिनांक 14.07.2023 को टिहरी, उत्तराखंड में आउटरीच कार्यक्रम आयोजित किया।



Joint visit was conducted by the officers of CWC and CSMRS to Coarse Aggregate site at Kabrai, Mahoba for proposed Panchnad Irrigation Project.



दिनांक 13.07.2023 को प्रो रीता बहुगुणा जोशी जी की अध्यक्षता में राजभाषा समिति ने बेंगलुरु में दक्षिण पश्चिम नदियाँ उप मण्डल, मंगलोर के साथ निरीक्षण बैठक की।



The 14th meeting of TARC on reservoirs sedimentation survey using hydrographic technique was held on 20.07.2023 under the Chairmanship of Chief Engineer, EMO for acceptance of the draft final reports.



Shri Prahlad Singh Patel, Hon'ble Union Minister of State for Food Processing Industries and Jal Shakti, Govt. of India interacted with officials of Narmada Basin Organisation, CWC Bhopal and CGWB Bhopal at Narmada Basin Organisation, Bhopal on 15.07.2023.



डिप्टी कलेक्टर एवं तहसीलदार, जिला गोंदिया(महाराष्ट्र) द्वारा दिनांक 12.07.2023 को कार्यस्थल रजेगांव, प्रबोधन मध्य संगठन, केंद्रीय जल आयोग, नागपुर का दौरा किया गया। दौरे के दौरान गेज मापन, डिस्चार्ज मापन, जल गुणवत्ता प्रयोगशाला-1 तथा फुल क्लाईमेट स्टेशन इन सभी की जानकारी कार्यस्थल कर्मचारी द्वारा महोदय को प्रदान की गई।

History- Meja Reservoir Project

The Scheme

An earthen dam of a maximum height of 34.16 m has recently been constructed on the river Belan. The Belan is a tributary of the Tons, which itself feeds the Ganga. The project seeks to provide irrigation facilities in the backward and under-developed area lying between the Tons-Lapri and the Karnauti-Ganga doab in Allahabad (now Prayagraj) and Mirzapur districts which was so far devoid of any dependable source of irrigation. The area, though capable of yielding good crops, has been a victim of drought and famine occasionally in the past. The project will go a long way in bringing prosperity to this area. Besides it will provide for fish culture also.

Meja Reservoir Project, consist of the main dam 34.16 high and 2.4 km long across the Belan river and a network of 326.6 km of canals to provide irrigation to the dry tracts of Tons-Lapri and Karnauti-Ganga doab, having a culturable command area of 24686 ha and 30270 ha respectively.

Investigations for construction of a dam were made as far back as 1955. In 1956, a preliminary project reports was framed and the dam was proposed to be constructed at Dhuria on the Belan river. Later, after making detailed geological explanations, it was found that a fault zone passes by the dam site which might present hazards and difficulties in construction and increase the cost of the dam.

Thereafter detailed surveys of nearly seven sites were made. After considering all technical aspects and the cost involved, it was found that the best of all the seven sites is the one near village Mahadeo, about 6.4 km below its confluence with the Bakhar

river. Construction work was taken up in earnest during the Third Plan period.

The River

The River Belan has its origin near Robertsganj in district Mirzapur. This along with its tributaries drains off an area of 2020 sqkm north of the Kymore range before reaching the dam site. A part of its catchment is hilly and wooded. The floods rise and fall in the river rapidly due to the nature of the terrain. The river flows in a zigzag manner for about 240 km before it is impounded at Meja Dam.

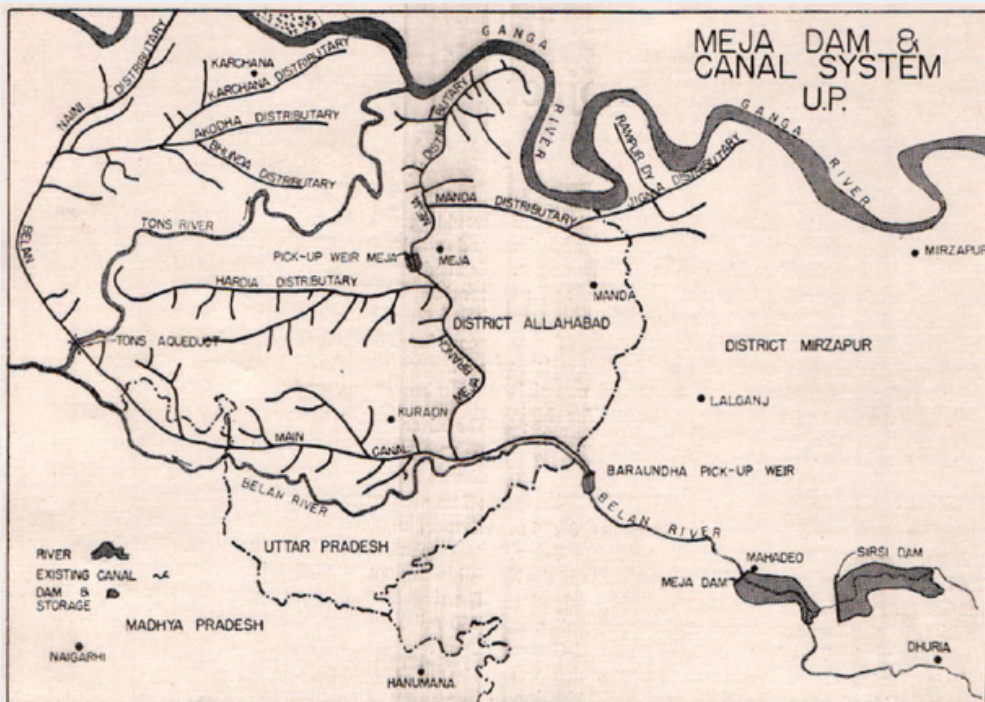
Main Dam

The entire dam has been built in homogenous earthen section with a rock toe downstream and stone pitching on the upstream face of the dam. The top width of the dam is 7.62 m. The maximum height of dam in the river portion is 34-16 m with an upstream slope of 3-5:1 and downstream slope of 3-25:1 with a berm of 4-57m at the top of the rock toe and a side slope of 2:1 in the rock toe.

A core trench, about 3.05 m deep has been provided to ensure proper bond and cut off in the foundation. This reduced the seepage from the dam to the minimum. As a safeguard against leakage through fissures in the foundations, rock curtain grouting had been provided in certain reaches, where the height of the dam was 22.87 m or more, so that leakage of water might be checked. An earthen blanket on the upstream extending to a length of 10 times the water depth, with a thickness varying from 1.52 to 3.05 m had been laid in the reaches where natural earth cover was missing.

Spillway and Canal Sluice

The maximum flood discharge was estimated to be 7924 cum per sec. A gated spillway on the right flank with 13 gates of 12.2 m x 6.1 m each had been provided to pass a discharge of 5943 cum per sec. The breaching Section on the right flank, incontinuation of the spillway, takes care of another 1698 cum per sec. While the remaining 283 cum per sec absorbed in the reservoir with a flood lift of 0.915m against a free board of 2.14 m. The top of the breaching section had been kept 0.610 m higher than the highest flood level. This breaching section only works in emergency and it breaches as soon as the water level in the reservoir rises above the highest flood level.



There was considerable side slope in the ground downstream of the escape due to which water tends to flow down towards the left flank of the escape. This flow of water checked and guarded against reaching the toe of the dam and undermining it. A guide bund 173.80 m long with a stone masonry toe had therefore been constructed. The escape side of the bund had been pitched with stone filled in wire crates to protect the guide bund against swift currents of water passing down the spillway. The design of the spillway was tested for surface flow conditions on models at the Irrigation Research Institute, Roorkee. On the recommendations of the Institute, a subsidiary low crest weir had been raised, about 228.75 m downstream of the main spillway crest.

The canal sluice for releasing water was located on the right bank between the spillway and the river. The sluice consists of two bays of reinforced cement concrete ducts of 1.52m x 3.05m each with twin masonry wells, one for operating gates and the other for emergency gates. The bed width of the channel below the sluice is 4.88 m with a water depth of 3.26 m which provides a discharge capacity of 56.6 cum per sec. At the time of irrigation demands, the water released through the sluice. It flows down the river and picked up at the Baraundha Weir and distributed through the Belan Canal which takes off from the Baraundha Pick-up Weir.

Construction Progress

The present dam site was finally selected in the year 1961. Work on the dam was started by manual labour. Seven motorised scrapers, out of 13 ordered for the work arrived in January 1963 when earthwork was started in full swing. The remaining scrapers were received-in 1964. All the earth work except in the river gap was completed by July 1965. The construction of canal sluice-cum-diversion channel was completed by April 1965. The spillway was also substantially completed by July 1965 except for the road bridge. Closing of the river gap was a major operation which required execution of

more than 84900 cum of earthwork with leads of up to 915 m and involved construction of a 16.47 m high coffer dam to provide for a winter flood diversion capacity of 56.6 cum per sec and also to provide for passing down 14.15 cum per sec of constant discharge for running existing canals.

The construction of the coffer dam was in itself a stupendous task. Clearance of the river bed, laying of blanket, laying of large quantities of graded materials in the rock toe and a ring bund downstream to stop the back-water of the river had all to be completed according to schedule. The entire earthwork was successfully completed against odds by the middle of May 1966 and stone pitching on the upstream face was completed by July 1966. The reservoir started filling during the monsoon of the same year as programmed.

The work of construction of canals was also taken up simultaneously. About 313.75 km of channels have already been dug and are running for irrigation. The channels which were completed early were fed from the existing Sirsi Reservoir and the inflow of the Belan river. The idea was to take advance action to develop irrigation and reduce the time lag in the utilisation of the Meja Reservoir potential.

The dam was filled to a depth of 19.22 m in the first filling in 1966 and almost entirely emptied for irrigation in the drought of 1966. The 1967 monsoon again filled it only to a depth of 25.93 m, the excess flow being allowed to spill out with a view to filling the reservoir to its full level gradually in a period of four to five years.

The Meja Reservoir and the Sirsi Reservoir form an irrigation grid and feed the area through the Belan Canal System.

Benefits

The total culturable command area being served by the scheme is 54320 ha. The annual irrigation as proposed in the Project is 25947 ha through a network of 326 km of channels which gives an intensity of 128 ha per mile and 48 percent on the culturable commanded area.

(Source: Bhagirath January 1968)



Central Water Commission

An attached office of Dept. of Water Resources,
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