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JALANSH

THE MONTHLY NEWSLETTER OF CENTRAL WATER COMMISSION

NO. 01



AUGUST 2025
VOLUME-08



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Chairman Message



Shri Atul Jain
Chairman, CWC

The August 2025 edition of Jalansh highlights the recent milestones, strategic reviews, and advancements achieved by the Central Water Commission (CWC) in its continued pursuit of sustainable water resources management, dam safety, and enhanced flood resilience across the nation.

A meeting with the Israeli delegation highlighted advanced drone- and AI—based technologies for structural health assessment and underground pipeline monitoring, paving the way for data-driven maintenance of water infrastructure.

Extensive deliberations were held on the Upper Karnali Hydroelectric Project (900 MW) in Nepal and the Lakhwar Multipurpose Project in Uttarakhand, where the finalized power intake layout (Alt-10) was reaffirmed based on safety and design efficiency. The 24th Investment Clearance Committee meeting reviewed three major and medium irrigation projects and five flood management projects from across India-including Bihar, Uttar Pradesh, Gujarat, and Rajasthan—reflecting CWC's pivotal role in project appraisal and investment decision-making.

Capacity building remained a key focus area. A National Level Training Programme on Quality Assurance for Concrete & Masonry Dams was organized in Trivandrum, enhancing understanding of QA/QC practices under DRIP and the Dam Safety Act, 2021. Similarly, workshops on Seismic Hazard Analysis Information System (SHAISYS 2.0) and multiple courses conducted by National Water Academy (NWA), Pune further strengthened technical competencies in hydrology, flood management, dam instrumentation, and modern command area development.

Under DRIP-II & III, important review meetings were held to streamline expert empanelment and engineering consultancy frameworks. The 10th Review Committee meeting underscored the importance of strengthening human resources and technical oversight. Furthermore, revisions to the empanelment criteria for Dam Safety Review Panel experts extended the participation age limits, enabling continued engagement of senior professionals and leveraging their extensive expertise.

In flood management, the AI/ML-based short-range flood forecasting initiative by the Smart Water Resources Modelling Organization (SWRMO) marks a major advancement in predictive analytics. Models developed for 28 flood forecasting stations have already demonstrated over 80% accuracy, ushering in a new era of intelligent and real-time hydrological forecasting.

The nation experienced an active flood season, with over 2,900 forecasts issued between May and July 2025, achieving a remarkable 96% accuracy rate. The Commission's continuous monitoring of 161 reservoirs, with current storage levels at 150% of the 10-year average, underscores its robust preparedness for the ongoing monsoon.

Other key engagements included the 40th Meeting of the National Committee on Seismic Design Parameters (NCSDP), deliberations on Sankosh and Subansiri Hydroelectric Projects, and the release of the Guidelines for Assessment of Glacial Lake Outbrust Floods (GLOF) specific to river valley projects in the Indian Himalayan Region, providing a scientific framework for glacial lake risk assessment.

Meetings with Foreign Delegation

Meeting with Israeli delegates



A meeting with the Israel delegation (VCE Environment - Rapida – Structural Health Monitoring Solutions and Asterra – Underground Water Leak and Pipeline Health Monitoring from Space) was held on 29th July 2025 in the 3rd Floor Conference Room, under the Chairmanship of Member (D&R). The delegation showed their technology which is being used in inspecting the water retaining structures health through combination of drone and AI.

Meetings Regarding Projects

Discussion on the DPR of Upper Karnali Hydroelectric Project (900 MW) in Nepal

A review meeting has been taken to discuss DPR of Upper Karnali Hydroelectric Project (900MW) in Nepal by M/s SJVNL & GMR., was taken by Chairperson, CEA on 09.07.2025 at Sewa Bhawan, R.K. Puram, New Delhi. Officials from CWC, CEA, GSI, CSMRS etc. participated in the meeting.

Lakhwar Multi-Purpose Project, Uttarakhand

The Lakhwar Multi-Purpose Project is being constructed on the Yamuna River in Dehradun district of Uttarakhand in which 204m high dam is to be built. Construction of this project is being done by Uttarakhand Jal Vidyut Nigam Ltd. (UJVNL). MoU was signed with Central Water Commission (CWC) to provide design consultancy. Power Intake Alternative-10 (Alt-10) has been proposed by CWC and the same was agreed during the Review meeting held under Member (D&R) CWC on 10.07.2025. Subsequently, UJVNL pushed Alt-9 over the finalized layout Alt-10 and accordingly, another review meeting to discuss and finalize the power intake for the Lakhwar Multipurpose Project (MPP) was convened on July 23, 2025, at the Central Water Commission (CWC) Headquarters in New Delhi. The meeting was chaired by the Member (Design & Research), CWC and attended by officials from both the CWC and UJVNL.

Both alternatives of power intake (Alt-9 and Alt-10) were thoroughly deliberated. After comprehensive discussions, Alt-9 could not be accepted on safety grounds and already finalized Alt-10 was reaffirmed. However, suggestion of UJVNL for vertical erection shaft and straight entry of penstock into powerhouse was principally agreed by CWC to incorporate in the layout.

The 24th Meeting of Investment Clearance Committee

The 24th meeting of Investment Clearance Committee (ICC) of Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD & GR), was held on 08th July 2025. ICC, mandated to consider investment clearance proposals in respect of Major & Medium Irrigation, Flood control and Multipurpose project, was chaired by Smt. Debashree Mukherjee, Secretary, DoWR, RD&GR.

A total of three Irrigation Projects and five flood management projects were considered in the meeting. Out of the five flood management projects, one was from Uttar Pradesh and four were from Bihar.

Details of the projects considered are as follows:

Meetings Regarding Projects

Sl.	Project Name	Scheme	State	Estimated Cost (₹ Cr)	BC Ratio
1	Bhaunrat Dam Project (RCE) (Medium Irrigation), Uttar Pradesh.	Irrigation	Uttar Pradesh	₹ 1252.12 Cr PL- 2022	1.14
2	Renovation and Modernization of Main Gang Canal System, Phase-1 (F-Branch, Z-Distributary, GG-Distributary and BB Distributary),	Irrigation	Rajasthan	₹ 695.16 Cr PL- 2022-23	1.58
3	Lift Irrigation Scheme and Tapi Barrage Project	Irrigation	Gujarat	₹ 974.51 Cr PL- 2023-24	1.5
4	Construction of Marginal Bund in Purkaji Khadar along right bank of river Solani in district- Muzaffarnagar	Flood Protection	Uttar Pradesh	₹ 113.88 Cr PL- 2021	2.7
5	Raising, strengthening and Puckkikaran of left and right Kamla Balan embankment (Phase-III) from km 0.00 Jainagar) to km 1 1.72 (Kasama), km 21.50 (Pirahi) to km 27.10 (Pipraghat) and km 92.50 (Punach) to km 105.35 (Ghoghepur) of Left Kamala Balan Embankment and from km 0.00 Jainagar) to km 23.20 (Bhatgama) and km 94.00 (Palwa) to km 111.29 (Phuhia) of Right Kamla Balan Embankment	Flood Protection	Bihar	₹ 254.45 Cr PL- 2022	2.31
6	Bagmati Shanti Dhar - Burhi Gandak Link Project Under Samastipur District	Flood Protection	Bihar	₹ 117.82 Cr PL- 2023	1.9
7	Bagmati Budhi Gandak river link channel (Construction of Belwa Meenapur link channel)	Flood Protection	Bihar	₹ 130.56 Cr PL- 2022	1.95
8	Restoration work at Saran embankment as per BIS code with provision of Bituminous Road on the top of Embankment from km 80.00 to km 120.280 Dist.- Gopalganj, block- Baikunthpur, Sidhwaliya, Barauli	Flood Protection	Bihar	₹ 124.11 Cr PL- 2023	1.71

Training/Workshop/Conference

Sl No.	Name of Training	Duration	Date	PAX	Objective of Program
1	8th International Distance Learning Course in Basic Hydrologic Sciences for Asian Region (WMO RA II)	7.8 Weeks	07 July – 27 Aug 25	65	The program was designed to strengthen the capacity of officials working with hydrologic data, particularly in the areas of flood forecasting and design flood analysis.
2	Overview of Water Resources Sector of India (for Non-Technical Officers)	1 Week	07-11 July 2025	21	The program was designed to strengthen the domain understanding of non-technical officers of the Ministry of Jal Shakti by providing them with a comprehensive overview of India's water resources sector.
3	Webinar on Implementation of Flood Inundation Mapping and Integrated Reservoir Operation	0.4	7-8 July 2025	161	The objective of this webinar was to disseminate and sensitize various stakeholders about the rollout of flood inundation forecasting for Godavari, Tapi and Mahanadi basins and other initiatives like integrated reservoir operation in the Ganga basin from this monsoon season.
4	Dam Instrumentation	1 Week	14-18 July 2025	21	The program aimed to build technical capacity of participants in dam instrumentation by providing comprehensive knowledge on planning, selection, installation, and monitoring of instruments for dam safety.

Training/Workshop/Conference

Sl No.	Name of Training	Duration	Date	PAX	Objective of Program
5	Detailed Project Report Preparation for Flood and Erosion (conducted at NEHARI)	1 Week	22-26 July 2025	29	The program aimed to equip participants with practical knowledge and actionable skills that can be directly applied to on-going and future projects.
6	Modernization of Command Area Development and Water Management	0.2	25-26 July 2025	1534	The objective of the webinar was to sensitize stakeholders about the newly launched Modernization of Command Area Development and Water Management (M-CADWM) scheme and its pilot implementation framework.
7	Mandatory Cadre Training Level -III for EADs of Hydromet Cadre of CWC (Special Arrangement)	1.4 Weeks	28 July – 5 Aug 2025	2	Mandatory Cadre Training
8	Mandatory Cadre Training Program for Communication Cadre of CWC (Special Arrangement)	1 month	28 Jul – 28 Aug 2025	1	Mandatory Cadre Training
9	Quality Assurance (Concrete & Masonry Dams) by CPMU, DRIP, CWC	2 Days	29th to 30th July 2025	29	The training was meticulously designed to address the challenges of Quality Assurance (QA) and Quality Control (QC) in dam rehabilitation and improvement, while ensuring compliance with the World Bank's quality procedures.
10	A half-day Workshop on Seismic Hazard Analysis Information System (SHAISYS)	0.5 Day	24th July 2025	---	Use of SHAISYS 1.0 tool and to discuss the ToR and deliverables of SHAISYS 2.0



National Level Training on "Quality Assurance (Concrete & Masonry Dams)" by CPMU, DRIP, CWC



A half-day Workshop on Seismic Hazard Analysis Information System (SHAISYS)



Meeting of Screening Committee for empanelment of DSRP experts under DRIP Phase II and III

A meeting of the Screening Committee for empanelment of Dam Safety Review Panel (DSRP) experts under DRIP Phase II and III was held on 4th July 2025 at 4:30 PM under the Chairmanship of Member (D&R), CWC. During the meeting, the Committee reviewed the revised qualification and experience requirements for empanelment of DSRP experts under DRIP Phase II and III. The committee noted that for empanelment of DSRP experts, the current upper age limit of 67 years is not aligned with the age criteria prescribed for empanelment of various experts under the National Dam Safety Authority (NDSA). Accordingly, after detailed deliberations, the committee unanimously agreed that the upper age limit for empanelment of DSRP experts should be appropriately revised and allowed up to the age of 75 years to serve in the Dam Safety Review Panel (DSRP).

Tenth(10th) meeting of Review Committee regarding Engineering and Management Consultancy for DRIP Phase II and Phase III

The tenth (10th) meeting of the Review Committee, chaired by Member (D&R), CWC, regarding the Engineering and Management Consultancy for Dam Rehabilitation and Improvement Project (DRIP) Phase II and Phase III, was held on 16th July 2025. The purpose of the meeting was to examine the CVs submitted by the Consultant in respect of the mobilization of personnel and to recommend suitable candidates for the approval of the Chairman, CWC. The Committee reviewed the CVs of the proposed key and non-key experts and recommended the CVs of two key experts and one non-key expert. Shri Rakesh Kumar Gautam, Director (DSR), attended the meeting.



Year of Completion - 1986
River - Servalar/ Tambiraparani
District - Tirunelveli
Basin - East flowing rivers between Pennar and Kanyakumari
Type - Gravity & Masonry
Length (m) - 465

Max Height above Foundation - 51.34
Gross Storage Capacity - 34690000 MCM
Reservoir - 90800000 sqm
Effective Storage - 31260000 MCM
Designed Spillway Capacity - 1820

Other Important Activities

I. Flood related matters

Initiative on AI/ML-Based Short-Range Flood Forecasting



The Smart Water Resources Modelling Organisation – Centre of Excellence (SWRMO-CoE), CWC, has successfully developed and demonstrated AI/ML (LSTM) based short-range flood forecasting models as a part of its ongoing innovation efforts. Moving beyond traditional statistical correlation methods, these models provide automated, hourly forecasts with graphical trend visualizations, significantly improving decision-making in flood management. Pilot studies at Guwahati, Dhubri, and Bhadrachalam showed encouraging results, and a user-friendly Python-based GUI application was created to empower nominated officers with no coding background, to develop and test models for their assigned stations.

As of August 2025, AI/ML models had been developed for 28 Level Forecast stations with more than 80% accuracy, and a dedicated real-time web portal has been established to make the forecasts available every three hours. The initiative was presented to Chairman, CWC on 22.07.2025, and was highly appreciated. With scaling up efforts already underway to cover 200 Level Flood Forecasting stations across the country, this marks a significant step forward in harnessing AI/ML for operational flood management and public safety.

Flood Situation in the country - July 2025

Regular Flood Forecasting Activity commenced on 1st May 2025 in Brahmaputra and Barak and Jhelum basins. During the period from 1st May to 31st July 2025, total 2929(1479 level+1450 Inflow) flood forecasts were issued, and 2814 (1421 Level+1393Inflow) forecasts were within permissible limit with a 96.07 % percent accuracy. 40 Red Bulletin (for Extreme flood situation) and 124 no. of Orange Bulletin (for severe flood situation) were issued during the month of July 2025 from Central Flood Control Room.

Summary of Flood Situation during 01.05.2025 to 31.07.2025

Extreme Flood Situation:

1 FF station observed in Extreme Flood Situation.

Sl No.	State	District	River	Station	Period	
					From	To
1	Assam	Hailakandi	Katakhal	Matizuri	02/06/25 1000	03/06/25 1800

13 Monitoring station, observed in Extreme flood Situation

Severe Flood Situation:

Water level was observed in Severe Flood for 51 FF Station in Assam, Bihar, Jharkhand, Odisha, Uttar Pradesh, Madhya Pradesh, Maharashtra, Rajasthan, Tamilnadu and West Bengal.

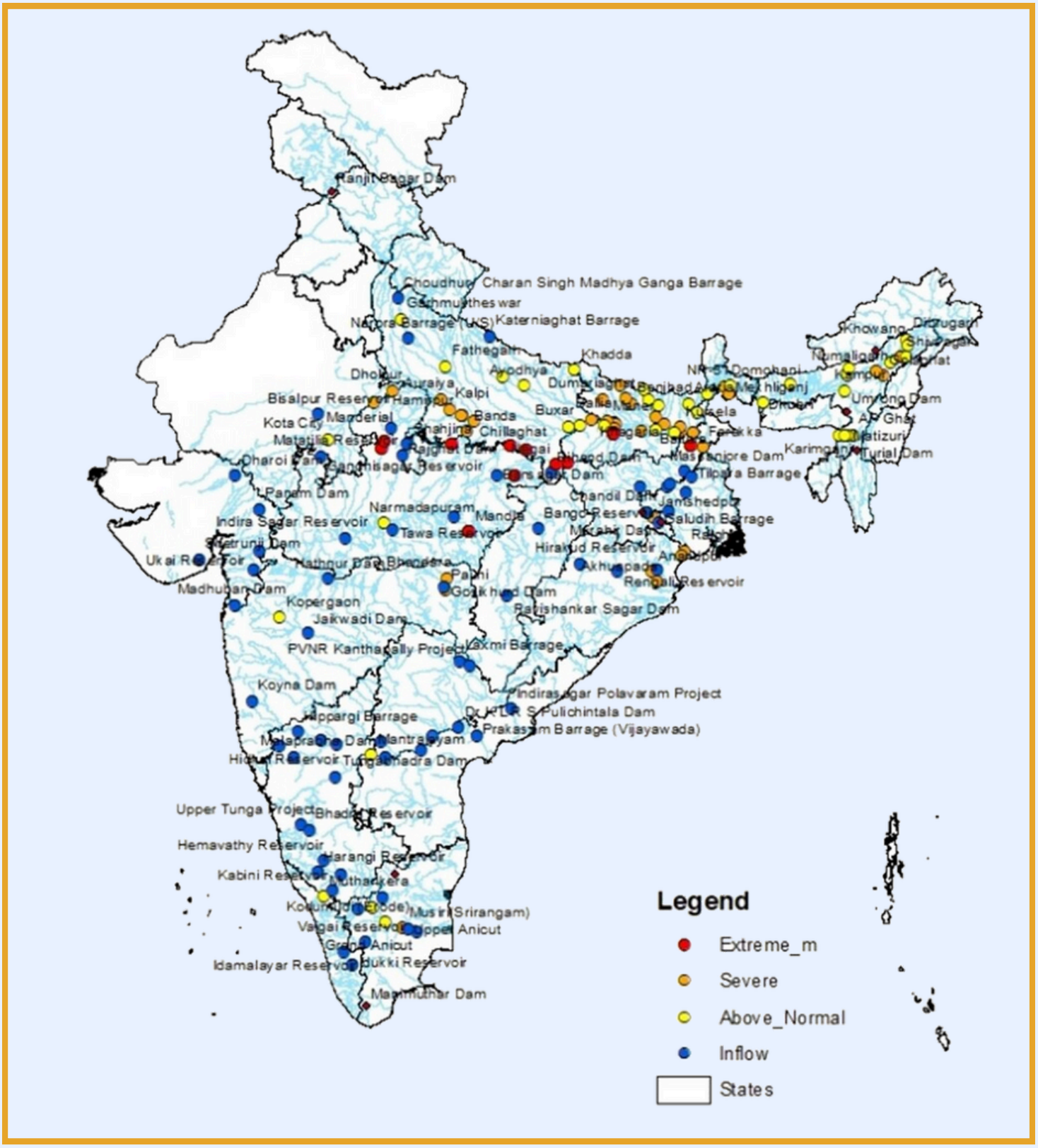
Water level was observed in Severe Flood for 69 monitoring stations in Assam, Bihar, Jharkhand, Odisha, Karnataka, Kerala, Manipur, Maharashtra, Madhya Pradesh, Rajasthan, Tripura, Uttar Pradesh and Uttarakhand.

Above Normal Flood Situation:

Water level was observed in Above Normal Flood for 35 FF Stations in Andhra Pradesh, Assam, Bihar, Kerala, Maharashtra, Madhya Pradesh, Odisha, Rajasthan, Tamilnadu, Uttar Pradesh and West Bengal.

Reservoirs having Inflow above threshold limit:

65 reservoir received inflows above its threshold limit in Andhra Pradesh, Gujarat, Jharkhand, Karnataka, Kerala, Maharashtra, Odisha, Tamilnadu, Telangana, Uttar Pradesh and West Bengal.



II. Other Activities

34th meeting of Ghaggar Standing Committee

The 34th meeting of the Ghaggar Standing Committee (GSC) was held on 14.07.2025 under the chairmanship of Member (RM), CWC. The meeting was attended by officials from MoJS (Indus Wing), CWC, CWPRS, and the Governments of Punjab, Haryana, and Rajasthan. Various issues pertaining to the Ghaggar Basin were discussed. Officials from CWPRS presented the data requirements for conducting a revised Mathematical Model Study on embankment construction and widening of the Ghaggar River (Haryana reach). The Government of Punjab made a presentation on the status of data availability

and highlighted issues such as cleaning of Hansi Butana syphon, industrial pollution, etc. The Committee also deliberated on the various aspects of Khetpurali and Dudhgarh dams on tributaries of the Ghaggar River. The IBO, Chandigarh presented their studies on suitable locations for establishing HO/FF sites.

Meeting on problem of siltation of dams, canals and other retention/storage and distribution structures

A meeting was held under the chairmanship of Shri Govind Mohan, Union Home Secretary, on 3rd July 2025 in New Delhi to deliberate on the issue of siltation in dams, canals, and other water retention, and distribution structures. The meeting was convened pursuant to the directions of the Hon'ble Union Home Minister during a review held on 1st May 2025, wherein the need for a national strategy to address the increasing problem of sedimentation was emphasized.

Shri Rakesh Kashyap, Chief Engineer, DSO made a comprehensive presentation on "Sustainable Management of Sediments in Reservoirs". The objective of the meeting was to sensitize the participants and deliberate on the sedimentation issue so that a comprehensive proposal can be formulated as directed by Union Home Secretary. The meeting concluded with a reiteration of the urgent need to tackle sedimentation in a sustainable, scientific and collaborative manner.

40th meeting of the National Committee on Seismic Design Parameters (NCSDP)



Sh. Bhopal Singh, Chairman, NCSDP and Member (D&R), CWC chaired the 40th Meeting of the National Committee on Seismic Design Parameters (NCSDP) at 3rd Floor Committee room in Sewa Bhawan, New Delhi. Esteemed members of NCSDP committee from IIT Roorkee, NCS, CWPRS, NDSA along with non-official members, Dr. I.D. Gupta attended the meeting. Sh. Anil Jain, Chairman, NDSA, Sh. Vivek Tripathi, CE, Design (N&W) and Sh. S.D. Sharma, CE, Design (E&NE) were special invitees in the meeting.

Site specific Seismic study reports of 2 projects were considered in the meeting wherein one project was cleared, and certain comments were issued for another project. Further discussions were held regarding estimation of Vs30 in site specific seismic study reports, analysis of long-term implications of seismic studies done using revised NCSDP guidelines issued in June 2024 as well as Seismic Hazard Analysis Information System 1.0 (SHAISYS 1.0) which is a web-based tool being developed by IIT Roorkee for seismic hazard assessment for Peninsular region.

As per the decision taken in 40th NCSDP meeting, a subcommittee of NCSDP has been constituted to look upon certain specific issues involved in carrying out site specific seismic hazard studies as per NCSDP guidelines.

Review meeting under the chairmanship of Joint Secretary (RD&PP), DoWR, RD&GR

A review meeting, chaired by the Joint Secretary (RD & PP), Department of Water Resources, River Development & Ganga Rejuvenation, was held on 31.07.2025 to assess the progress of Implementing Agencies (IAs) under DRIP Phase II and III. The review included the Water Resources Departments of Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Kerala, and Kerala SEBL. CPMU team headed by PD DRIP-II and III along with Directors, Deputy Directors, Assistant Director of CWC attended the meeting.

Discussion on the issues/progress related to Sankosh HEP and Subansiri Lower HEP

A meeting jointly chaired by Secretary, D/o WR, RD & GR, MoJS and Secretary, Power to discuss issues/progress related to Sankosh HEP and Subansiri Lower HEP was held at Shram Shakti Bhawan, New Delhi on 07.07.2025. Officials from CWC, NWDA, NHPC, CEA, NWDA etc participated in the meeting. NWDA and NHPC made the presentations in respect of the two projects under discussion.

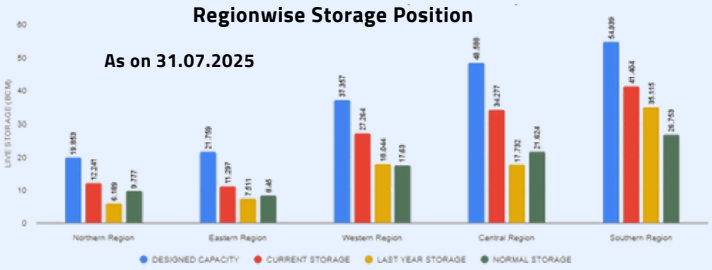
Reservoir Monitoring

Central Water Commission is monitoring live storage status of 161 reservoirs of the country and is issuing weekly bulletin on every Thursday. Out of these reservoirs, 20 reservoirs are of hydro-electric projects having total live storage capacity of 35.299 BCM. The total live storage capacity of 161 reservoirs is 182.496 BCM which is about 70.79% 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 31.07.2025, live storage available in these reservoirs is 126.482 BCM, which is 69.31% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 84.590 BCM and average of last 10 years live storage was 84.233 BCM. Thus, the live storage available in 161 reservoirs as per 31.07.2025 Bulletin is 149.52% of the live storage of corresponding period of last year and 150.16% of storage of average of last 10 years.

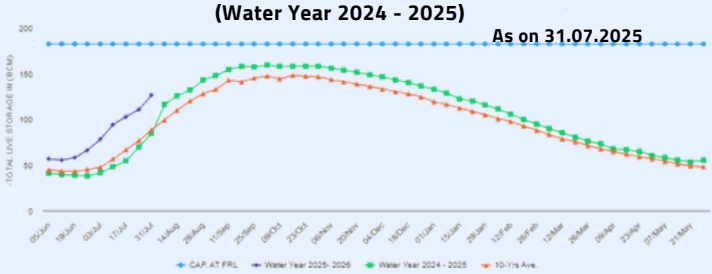
Regionwise Storage Position

As on 31.07.2025



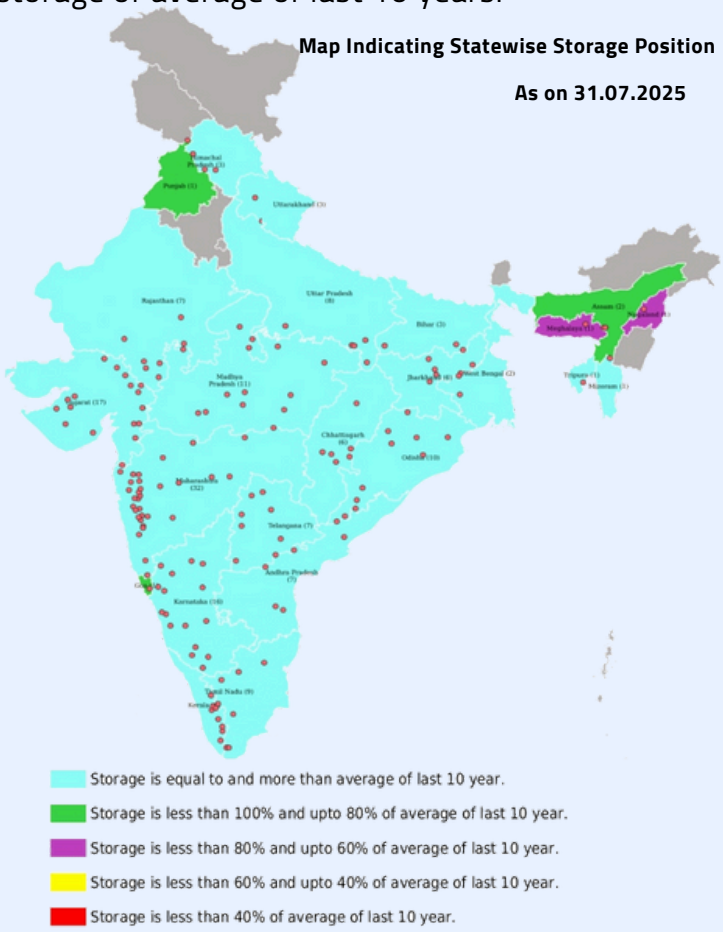
STORAGE POSITION OF 161 IMPORTANT RESERVOIRS IN INDIA
(Water Year 2024 - 2025)

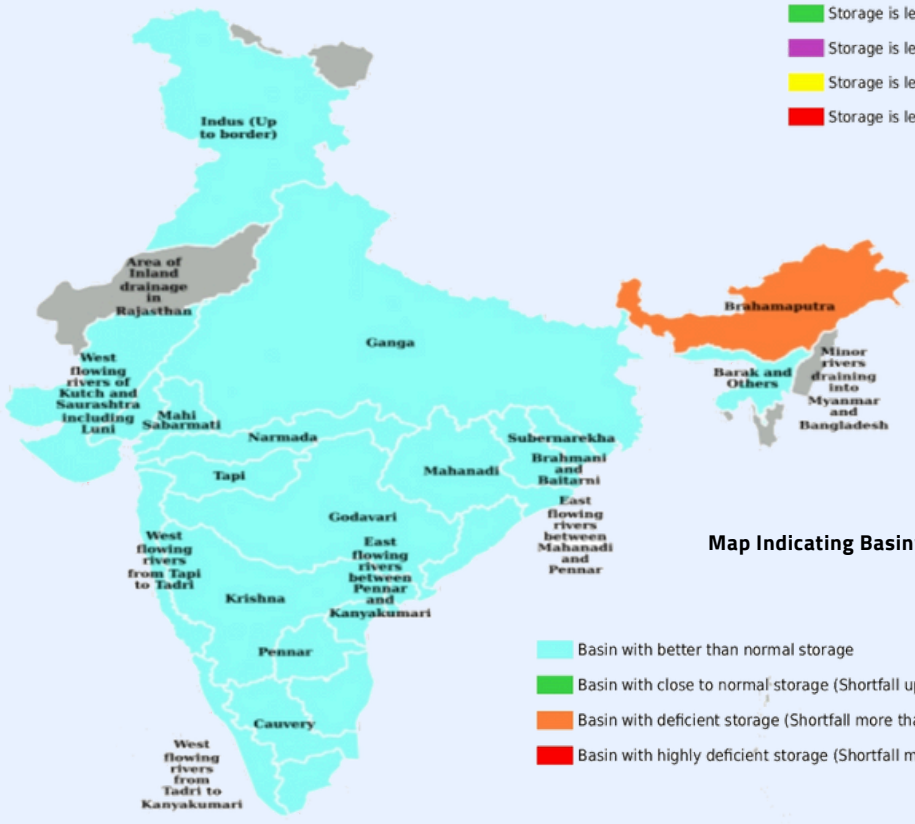
As on 31.07.2025



Map Indicating Statewise Storage Position

As on 31.07.2025





Map Indicating Basinwise Storage Position

As on 31.07.2025

Publication

Guidelines for Assessment of GLOF specific to river valley Projects in Indian Himalayan Region

Shri Atul Jain, Chairman CWC released the "Guidelines for Assessment of GLOF specific to river valley Projects in Indian Himalayan Region" in the presence of Shri Bhopal Singh, Member (D&R), Shri Yogesh Paithankar Member (WP&P) along with Shri Rakesh Kashyap, CE, DSO; Shri S.S. Bakshi, CE, Design (NW&S); Shri Vivek Tripathi, CE, Design (N&W); Shri S.D. Sharma, CE, Design (E&NE); Shri D. P. Mathuria, CE, P&DO; Shri V.D. Roy, CE, FMO; Shri Samir Kumar Shukla, Member(Technical), NDSA and other senior officers from D&R wing. The guidelines are prepared by Dam Safety Organization of CWC to provide a comprehensive framework for identifying vulnerable glacial lakes, estimating breach parameters and volumes, and simulating



Glacial Lake Outburst Flood (GLOF) scenarios using appropriate hydraulic models. It aims to standardize GLOF studies and scientific rigor in GLOF assessment practices specific to river valley Projects in Indian Himalayan Region.

Gallery





Shri Pankaj Tyagi, Director, DSM Dte, CWC, New Delhi Inspected the works ongoing at Jayakwadi Dam under DRIP-II on 03.07.2025





1)Shri Pankaj Tyagi, Director, DSM Dte, CWC, New Delhi inspected the works proposed for Bhandardara under DRIP-II on 04.07.2025.

Central Water Commission

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

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