



## Message



**Shri Kushvinder Vohra**  
**Chairman, CWC**

The month of July marked significant strides in resolving inter-state water disputes, enhancing flood management, and monitoring irrigation projects under the PMKSY-AIBP and CADWM initiatives.

A notable development was the signing of a Memorandum of Understanding (MoU) on 8th July 2024, between the Central Water Commission (CWC) and the Space Applications Centre (SAC). This MoU will focus on collaborative studies addressing waterlogging, salinity, inundation mapping, AI/ML-based predictions for rivers and reservoirs, wetlands monitoring, forecasting extreme events, and incorporating satellite data into hydrological models for improved water management.

On the publication front, Shri C. R. Patil, Hon'ble Minister of Jal Shakti, released the Central Water Commission's publication titled "Assessment of Area Affected due to Floods in India." The report, based on a scientific study that utilized satellite imagery from 1986 to 2022, reveals that approximately 20.5 million hectares of land have been protected from floods through various structural measures, while around 21 million hectares have been affected during the same period.

Additionally, the ongoing review of PMKSY-AIBP and CADWM projects in Telangana and Andhra Pradesh during July 2024 brought forth valuable insights and recommendations for the timely completion of these vital projects, reaffirming our unwavering commitment to enhancing water resource management and infrastructure development.

In my meeting with Hon'ble Minister Water Resources Department, Govt. of Andhra Pradesh, Dr. Nimmala Ramanaidu, alongside Special Chief Secretary Shri Sai Prasad, we discussed critical aspects of the Polavaram project and the way forward, assuring all possible support for the project's early completion.

On 15th July 2024, I chaired the 22nd meeting of the Water Resources Division Council (WRDC) of the Bureau of Indian Standards (BIS). The meeting, inaugurated by Shri Sanjay Pant, Deputy Director General, BIS, highlighted the alignment of our efforts with the Standards National Action Plan (SNAP) 2022-27. I emphasized the importance of standards in fostering sustainable water management and building climate-resilient infrastructure. We also addressed emerging challenges such as urban flooding, glacial lake outburst floods (GLOFs), and dam rehabilitation. Key decisions included the appointment of chairpersons for two new Sectional Committees, the reconstitution of 17 Sectional Committees, and India's elevation in ISO technical committee membership.

In a proud moment, the Central Water Commission was honored with the Global WaterTech Award under the category "Water Department of the Year" at the Global Water Tech Summit 2024, hosted by the Global Energy and Environment Foundation (GEEF). This prestigious award acknowledges CWC's pivotal role in water management and its innovative initiatives aimed at better serving the needs of States and Union Territories. This recognition reinforces our dedication to excellence and continuous efforts to advance water technology and resource management.

We look forward to furthering our initiatives with the same zeal and dedication in the months to come.

## Wrap up Meeting with the Individual Experts Engaged for PIP



Panel of Experts visited Polavaram Irrigation Project (PIP) site from 30th June 2024 to 03rd July 2024

Experts from the United States of America and Canada were hired and a Panel of Experts (PoE) was constituted for Polavaram Irrigation Project by PPA. PoE visited Polavaram irrigation project site from June 30 to July 3, 2024 along with the officials from PPA, CWC, CSMRS, WRD (GoAP)& Executing Agencies. The Panel of Experts inspected the upstream and downstream cofferdams and reviewed various technical challenges being faced at the project site like seepage from the u/s and d/s coffer dam ground improvement work etc.

After the site visit a wrap meeting was held on 03.07.2024 in hybrid mode under the chairpersonship of Chairman, Central Water Commission with the Panel of Experts, (PoE) and officials of Polavaram Project Authority, CWC, WRD (GoAP), CSMRS, and Executing Agencies to discuss the outcome of the site visit. The PoE shall a detailed report in the way forward to Polavaram Project Authority giving the way forward.

Chief Engineer, Design & Dy. Director, Embankment Dte. accompanied the PoE in the site visit.

## Jamrani Dam MPP

A meeting led by the Member (D&R) of the Central Water Commission (CWC) was held on July 4, 2024, to discuss the design aspects of the Jamrani Dam Multipurpose Project (MPP). The meeting was attended by officials from the CWC and the Uttarakhand Project Development & Construction Corporation Ltd. (UPDCC). During the meeting, UPDCC officials emphasized the urgency of finalizing the diversion arrangements to commence project construction as soon as possible. Various aspects of the project were also discussed.

In addition, UPDCC officials brought up the Song Dam Drinking Water Project, which requires a Memorandum of Understanding (MoU) to be signed between UPDCC and CWC. Since the Jamrani Dam MPP is handled by the CMDD (E&NE) Directorate of CWC, UPDCC officials requested that the Song Dam

Drinking Water Project be managed by the same directorate for better coordination. In response, the Member (D&R) instructed CMDD (E&NE) to take the necessary steps to include the Song Dam Drinking Water Project under the E&NE unit.

## Lakhwar MPP

The Lakhwar Multi-Purpose Project is being constructed on the Yamuna River in Dehradun district of Uttarakhand. The Central Water Commission is providing design consultancy for the project.

A review meeting among the officials of CWC, CEA and UJVNL was held under the Chairmanship of Member, D&R on 23.07.2023. During the meeting, proposed methodology for shear zone treatment, issues regarding long-term sedimentation in front of tail race structure, revised tail water rating curves for fixation of invert of TRT outlet, revision of power potential studies, to explore the alternative layouts of intake, gaps in the numerical modelling of power house taken up by NIRM and requirement of methodology for excavation of transformer cavern were discussed.

## Drass Suru Link Project, J&K



Drass-Suru Link Project is proposed as Run of River Scheme in District Kargil of Ladakh, UT. The Detailed Project Report (DPR) of the project is currently being prepared by the Indus Basin Organization (IBO) of the Central Water Commission (CWC).

To discuss and explore various alternatives of the proposed link project and to assess the technical and economic viability of the project, a meeting (in hybrid mode) was held under Chairmanship of Chief Engineer, Designs (N&W) in CWC Headquarter, New Delhi. The meeting was attended by officers of Designs Wing (N&W), HSO and IBO on 24.07.2024.

Various feasible alternatives of Drass Suru Link Project between the two sub basins (viz. Drass & Suru) cascading projects along Drass river were discussed.





## Rajasthan Feeder and Sirhind Feeder and Shahpurkandi Dam 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.

The Shahpurkandi Dam Project (National Project) is on river Ravi, 11 Km downstream of Ranjit Sagar Dam and 8 Km upstream of Madhopur Headworks. It envisages construction of 55.5 m high concrete dam, 7.70 km long Hydel Channel along the left bank of river, 2 nos. head regulators, one to feed Shahpurkandi Hydel Channel (Left side) in Punjab and the other to feed Ravi Canal (right side) in J&K.

The Project has Irrigation benefit of 37173 ha. (32173 ha. in J&K + 5000 ha. in Punjab) and power potential of 206 MW (2x99 MW + 8 MW).

A meeting on review of special projects regarding relining of Rajasthan Feeder and Sirhind Feeder and Shahpurkandi Dam Project was held on 04.07.2024 under the chairmanship of Secretary (WR). Officers from DoWR, RD & GR, CWC, Govt. of Punjab and Govt. of J&K had participated in the meeting.

Regarding Shahpurkandi Dam Project, it was informed that physical progress of the project is about 75 %, whereas financial progress is 72 %. Detailed discussions were held on Dam/Headworks, Forest Clearance, Progress of Noorah Bridge and extension of time for completion of the project. Further, discussions were held regarding sharing of project cost between Punjab and J&K for Ranjit Sagar as well as Shahpurkandi Dam Project.

Secretary, DoWR, RD & GR requested Project authorities to submit realistic plan for completion for all pending components. Further, regarding sharing of cost of Ranjit Sagar and Shahpurkandi Dam Project between two states, it was requested to the two states to resolve the issue mutually among themselves or seek recourse of third party intervention in terms of MoU signed by them in 2018.

## The 37th meeting of TEC for completing the balance works of North Koel Project, Bihar & Jharkhand

The 37th meeting of the Technical Evaluation Committee (TEC) for completing the balance works of North Koel Reservoir Project (NKP) was held on 19.07.2024 at CWC, New Delhi under the Chairmanship of Member (WP&P), CWC and Chairman (TEC), NKP. The officers from DoWR, CWC HQ & field units, State Governments of Bihar, Jharkhand and WAPCOS participated in the meeting. There were discussion on important agenda items such as status of land acquisition by WRD Bihar/Jharkhand, progress of various components of the balance works of the project by the WAPCOS, Status of Tender for the work of "Lining, Repair, & Construction of RMC and it's structures in Bihar portion (RD 68.37 Km to 109.09 Km), Status of Tender for the work of "Earthwork, Repair, & Construction of Distribution Network (12 Nos. Minors) of Right Main Canal, Jharkhand, Status of Tender for the work of the construction of distribution system off taking from RMC in Bihar, Status of Shifting of electric poles from RMC, Status of outstanding payments in respect of foundation stone laying function at Daltonganj, Jharkhand, Status of Release of payments of Rs. 1.37 Cr. for final payment of ongoing contract for renovation and maintenance of Bhim Gate at Mohammadganj etc.



## Training Programs organized by NWA, Pune

Sl No.	Name of Training	Durations	No. of participants	Objective
1	Emergency Action Plans (EAP) for Dams	Four Days	56	To strengthen the capacities of stakeholders involved in the implementation of the provisions of the Dam Safety Act, 2021, and act as a 'train the trainers' program to address the enormous demand for capacity building in the area of dam safety
2	Faculty Development Program	Five Days	30	For enhancing the capacity and professional growth of trainers
3	Induction Training Program (ITP)	Three Weeks	25	Induction Training Program (ITP) for the newly recruited Junior Engineers (JEs) of Brahmaputra Board
4	Coastal Erosion Protection & Coastal Zone Management	One week	36	Topics covered Coastal Data Collection, DPR Preparation for Coastal Protection Projects, Design & Construction of Coastal Structures, Modelling Techniques in Coastal Engineering, Wave & Tide Hydrodynamics, Assessment of Shoreline Changes, and Performance Evaluation of Coastal Protection Measures.
5	Overview of Water Resources Sector in India (Training-cum-Workshop)	One Day	57	Training-cum-Workshop for School Teachers
6	Urban Flood Management	Four Days	57	To enhance the capacities and competencies of all concerned stakeholders for effective management of urban floods



## DAM SAFETY ACT, 2021/NDSA

### 6th meeting of the National Committee on Dam Safety

Shri Kushvinder Vohra, Chairman, Central Water Commission and Ex-Officio Secretary to the Government of India and Chairman, National Committee on Dam Safety (NCDS) held sixth meeting of the NCDS on 3rd July, 2024.

The officers from Central Water Commission, DoWR, RD & GR, National Dam Safety Authority, Central Electricity Authority, Geological Survey Authority (GSI) and other Central Govt. organisations and State Governments attended the meeting.

In the meeting, Chairman, CWC informed the context of the draft regulation 54(2)(s) framed under section 54 (1) of Dam Safety Act, 2021 "The measures necessary to ensure dam safety by every owner of



dam other than that specified dam under sub-section (1) of section 46". He discussed various suggestions made by the members in detail. After discussions, the Committee approved the draft of said regulation with some modifications.





## I. Flood related matters

### Joint flood management study of river Yamuna for its reach between Hathnikund and Okhla Barrage

Shri Kushvinder Vohra, Chairman, CWC & Ex-Officio Secretary to the Government of India held fourth meeting of the committee constituted for “Joint flood management study of river Yamuna for its reach between Hathnikund and Okhla Barrage” on 1st July, 2024.

The officers from Central Water Commission, IMD, State Governments of Haryana, Uttar Pradesh, Government of Delhi, DDA, CWPRS, UYRB, Delhi Jal Board attended the meeting.

Chairman, CWC mentioned in detail the progress made regarding various ToRs of the committee and discussed various aspects of flood management in



Yamuna like operation of barrages, hydraulic model study of the reach, representative rainfall analysis in the catchment of Yamuna, carrying capacity of river, issue of drainage congestion in NCT Delhi etc.

Chairman, CWC directed all agencies to share the information/data required for accomplishing the balance studies and stressed for an early completion of model studies as per the mandate of ToRs of the committee.

### Flood Situation in the country – July 2024

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 2024, Total 3597 (3040 level+557 Inflow) flood forecasts were issued, and 3340 (2821 Level+519 Inflow) forecasts were within permissible limit with a 92.85 % percent accuracy. 126 nos. of Red Bulletin (for Extreme flood situation) and 124 no. of Orange Bulletin (for severe flood situation) were issued during the month of July 2024 from Central Flood Control Room.

#### Summary of Flood Situation during 01.05.2023 to 31.07.2024

##### Extreme Flood Situation

Four FF station observed Extreme Flood Situation.

Sl No.	State	District	River	Station	Period	
					From	To
1	Assam	Jorhat	Brahmaputra	Neamatighat	30/06/2024	02/07/2024
2		Sonitpur	Jiabharali	Jia-Bharali NT Road Crossing	01/07/2024	01/07/2024
3		Sivasagar	Dikhow	Sivasagar	02/07/2024	02/07/2024
4		Dibrugarh	Buridehing	Khowang	02/07/2024	03/07/2024

22 flood monitoring station observed Extreme flood situation.

##### Above Normal Flood Situation

40 FF Stations in Arunachal Pradesh, Assam, West Bengal, Bihar, Uttar Pradesh, Uttarakhand, Tamilnadu, Andhra Pradesh, Maharashtra, Jharkhand, Chhattisgarh, Odisha and Telanagana observed Above Normal Flood Situation.

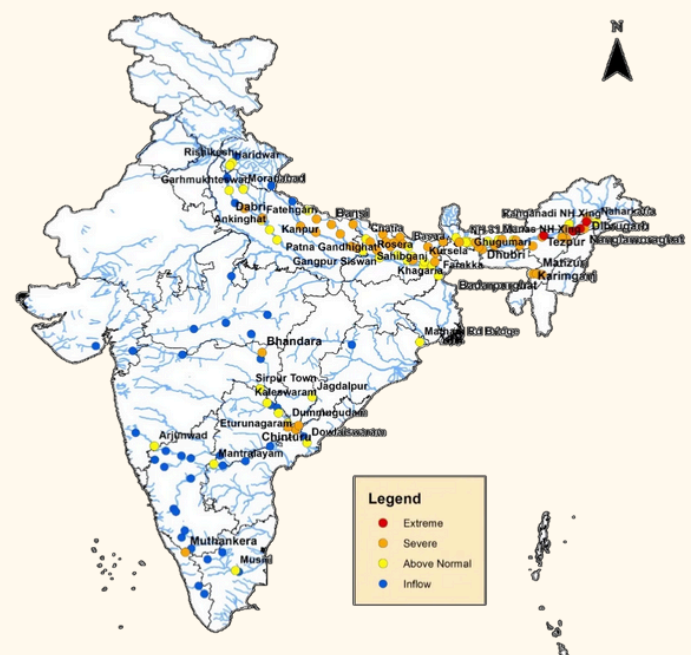
##### Severe Flood Situation

52 FF Stations observed Severe Flood Situation in Assam, Bihar, Sikkim, West Bengal, Uttar Pradesh, Andhra Pradesh, Kerala, Telangana, Tamilnadu and Maharashtra.

76 monitoring station observed Severe Flood Situation in Assam, Bihar, Manipur, Kerala, Karnataka, Tripura, Uttar Pradesh, Uttarakhand, Maharashtra, Madhya Pradesh, Odisha, Gujarat and Telangana.

##### Reservoirs having Inflow above threshold limit

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



## II. Inter-State Disputes

### Negotiation Committee on Pennaiyar River Water Dispute



Shri Kushvinder Vohra, Chairman, Central Water Commission & Ex-Officio Secretary to the Government of India held 5th meeting of the Negotiation Committee on Pennaiyar River Water Dispute on 2nd July, 2024.

Officials from the four co-basin States of Karnataka,

Tamil Nadu, Andhra Pradesh and Union Territory of Puducherry, CGWB and Senior officers from Central Water Commission (Head quarter & field offices) attended the meeting.

In the meeting, the report of the field visit undertaken by the Committee, water yield studies carried out by CWC and other issues as per ToRs were discussed in detail. Field visit report was finalized. Members were requested to provide further comments, if any, regarding water yield in basin upto Krishnagiri as a whole and also for the sub-basins above it as presented during the meeting. Chairman, CWC expressed that considering the cooperation being provided by the members of the committee, the issues raised in this regard can be amicably settled.

## III. PMKSY-AIBP and CAD&WM

### Andhra Pradesh

There are eight projects from the state of Andhra Pradesh namely Kandula Obula Reddy Gundlakamma Reservoir Project, Maddigedda Reservoir Project, Musurumilli Reservoir Project, Pushkara Lift Irrigation Scheme, Tadipudi Lift Irrigation Scheme, Tarakarama Thirtha Sagaram Project, Thotapalli Barrage Project and Yerracalva Reservoir Project under PMKSY-AIBP. Out of these 8 Projects one project namely Maddigedda Reservoir Project is completed and remaining seven are ongoing. Total Central Assistance (CA) released for above eight (8) projects in Andhra Pradesh till date under PMKSY-AIBP from FY 2016-17 to till date is: Rs. 22.700 Cr. and the corresponding Irrigation Potential Created under PMKSY-AIBP from FY 2016-17 to till date is 52.229 Th Ha.



Gundlakamma, Andhra Pradesh

### Telangana

There are eleven projects from the State of Telangana namely J Chokka Rao Devadula LIS, Sri Komuram Bheem Project, Gollavagu Project, Ralivagu Reservoir Project, Mathadivagu Reservoir Project, Neelwai Reservoir Project, Palemvagu Reservoir Project, Peddavagu Diversion Scheme at Jagannathpur, Sri Rama Sagar Project-Stage-II, Rajiv Bhima LIS, Indiramma Flood Flow Canal Under PMKSY-AIBP. Out of these eleven (11) irrigation projects, three (3) projects namely Gollavagu Project, Ralivagu Reservoir Project & Mathadivagu Reservoir Project are completed. Sri Komuram Bheem Project is also reported as completed by project authorities, and the completion report has been forwarded to DoWR, RD & GR, MoJS. Total Central Assistance (CA) released for above eleven (11) projects in Telangana under PMKSY-AIBP from FY 2016-17 to till date is Rs. 978.901 Cr and the corresponding Irrigation Potential Created under PMKSY-AIBP from FY 2016-17 to till date is 135.852 Th Ha.



Indiramma Flood Flow Canal, Telangana





### IV. Other Activities

#### GEEF Global WaterTech Award

Central Water Commission (CWC) has been honored with the GEEF Global WaterTech Award under the category “Water Department of the Year” at the prestigious Global Water Tech Summit -2024 organized by the Global Energy and Environment Foundation (GEEF) on 26th July, 2024 at Delhi.

The Global Awards recognises the most important achievements in the water sector in several categories to honour and reward initiatives in the water, wastewater and desalination sectors on innovation, technology, conservation and sustainable development.

The Global Energy and Environment Foundation acknowledged the Central Water Commission's (CWC) pivotal role in water management and several new initiatives taken by CWC so as to better serve the needs of the States/ UTs.

While receiving the award at the summit, Chairman of CWC also presented an insightful overview of the water resources scenario in India, highlighting the significant expectations from the industry to drive innovation and sustainability in water management.

This recognition underscores CWC's commitment to excellence and continuous efforts to advance water technology and resource management.



#### Publication on “Assessment of Area Affected due to Floods in India”

Shri C. R. Patil, Hon'ble Minister of Jal Shakti, Government of India released a publication brought out by Central Water Commission “Assessment of Area Affected due to Floods in India” on 25.07.2024 in presence of Ms. Debashree Mukherjee Secretary, Department of Water Resources, River Development & Ganga Rejuvenation, Shri Kushvinder Vohra,

Chairman, Central Water Commission (CWC) and other senior officials of the Ministry of Jal Shakti and CWC.



Central Water Commission has carried out scientific study by capturing all flood events utilising the satellite imageries for the period 1986-2022. This publication reveals that about 20.5 Mha of area has been protected from the floods in the country by taking various structural measures. Further, about 21 Mha of area in the country has been affected by flood as per analysis for the period 1986-2022.

The publication shall help planners, policy makers, disaster managers, relief agencies, academicians etc. dealing with floods for identifying various measures to mitigate the impact of floods and carry out further appropriate flood protection works.

PDF version of the publication is also available on CWC website.

#### Meeting with Hon'ble Minister WRD, Govt. of Andhra Pradesh

Hon'ble Minister Water Resources Department, Govt. of Andhra Pradesh, Dr. Nimmala Ramanaidu along with Special Chief Secretary Shri Sai Prasad and other official from Government of Andhra Pradesh called upon Chairman, CWC Shri Kushvinder Vohra on 23rd July, 2024.

Comprehensive discussions were held in respect of issues related to Polavaram project and way forward. Chairman, CWC assured to provide all support in early completion of project.





### Water Resources Division Council of Bureau of Indian Standards



Shri Kushvinder Vohra, Chairman, CWC & Ex-officio Secretary to Government of India and Chairperson, Water Resources Division Council (WRDC) of Bureau of Indian Standards (BIS) held 22nd Meeting of WRDC on 15.07.2024.

Shri Sanjay Pant, Deputy Director General, BIS welcomed the Chairperson and the participants present physically and online. He appraised the participants about the new development in BIS and aligning the activities of the Council with the Standards National Action Plan (SNAP) 2022-27.

In his opening remark, Chairperson, WRDC emphasized the role of standards in sustainable water management, climate resilient infrastructure and the responsibility of the Council and its Sectional Committees to establish best practices and guidelines. He stressed upon the need of inclusion of new focus areas in Indian Standards such as urban flooding, glacial lake outburst floods (GLOFs), Reservoir sedimentation and Repair, Retrofitting and Rehabilitation of Dams. Further the Chairperson stressed upon need to prioritize these issues and align the efforts of Council with India's Sustainable Development which must be at the core of our standards.

The key decisions taken in the Council meeting inter-alia includes appointment of Chairpersons of two newly formed Sectional Committees, reconstitution of 17 Sectional Committees for next 3 years, review of the Scope of the Sectional Committees, nomination of the experts representing India in International Committees of International Organization for Standards (ISO), elevation of India's Membership status in a technical committee of ISO from Observer to Participating granting India a greater influence in shaping International Standards etc.

The Chairperson expressed gratitude for the members' invaluable contributions to formulating international standards and encouraged continued active participation and collaboration and looking forward to more productive discussions and fruitful outcomes.

### Memorandum of Understanding between CWC and SAC, ISRO, Ahmedabad



Shri Kushvinder Vohra, Chairman, CWC & Ex-officio Secretary to Government of India held detailed discussions with Dr. Nilesh M. Desai, Director, SAC, ISRO, Ahmedabad to enhance cooperation between Central Water Commission (CWC) and Space Application Centre (SAC) in the field of hydrology and water resources management, leveraging remote sensing and collaborative research efforts for mutual benefit. It was decided that CWC and SAC may collaborate in areas of mutual interest in this regard.

A Memorandum of Understanding (MoU) in this regard was signed by Sh Kushvinder Vohra, Chairman, CWC & Ex-officio Secretary to Govt of India and Dr Nilesh M. Desai, Director, SAC on 8th July, 2024.

Broadly, the MoU covers the joint studies related to assessment of water logged areas & salinity ingresses areas, spatial inundation mapping and monitoring in India, estimation of satellite based meteorological parameters, AI/ML based predictions of various river and reservoir parameters and wetlands monitoring, Forecasting technologies for extreme events such as floods and hydrological droughts, monitoring of high-altitude lakes, conduct hydrological experiments for river and wetlands water measurements to maximize the benefits from SWOT, Sentinel-3A/B and future sensors data over selected sites in India, Integration of satellite and in situ observations into hydrological models to improve water resources management & decision-making processes and other mutually agreed areas.

The works under the MoU will be carried out through mutual consultations and collaboration, leveraging the expertise and resources of both institutions.





## IV. Other Activities

### Knowledge Sharing Session at MTBO, Gandhinagar

माही व तापी बेसिन संगठन, केन्द्रीय जल आयोग, गांधीनगर द्वारा भारत मौसम विज्ञान विभाग (आईएमडी) के विभिन्न उत्पादों और सेवाओं पर आधे दिन का ज्ञान साझाकरण सत्र का आयोजन श्री डी एस चासकर, मुख्य अभियंता महोदय की अध्यक्षता में दिनांक 11.07.2024 को हाईब्रिड माध्यम से चार (04) व्याखानों के माध्यम से संपन्न हुआ। कार्यक्रम के प्रथम सत्र में "Weather Forecast and Early Warning products of India Meteorological Department" विषय पर व्याख्यान श्री रामेश्वर यादव, वैज्ञानिक- डी द्वारा प्रदान किया गया। कार्यक्रम के द्वितीय सत्र में "Rain bearing Weather Systems over Indian Region" विषय पर व्याख्यान श्री प्रदीप शर्मा, वैज्ञानिक- डी द्वारा प्रदान किया गया। कार्यक्रम के तृतीय सत्र में "Nowcast and Radar Products" विषय पर व्याख्यान श्री वैद प्रकाश सिंह, वैज्ञानिक- डी द्वारा प्रदान किया गया। कार्यक्रम के चतुर्थ सत्र में "Hydrometeorological Support for Flood Forecast of India Meteorological Department" विषय पर व्याख्यान श्री अभिमन्यु चौहान, वैज्ञानिक- सी द्वारा प्रदान किया गया। श्री आर जी कानूनगो मुख्य अभियंता भी कार्यक्रम में उपस्थित रहे। कार्यक्रम में जल संसाधन विभाग गुजरात, जल संसाधन विभाग मध्यप्रदेश, जल संसाधन

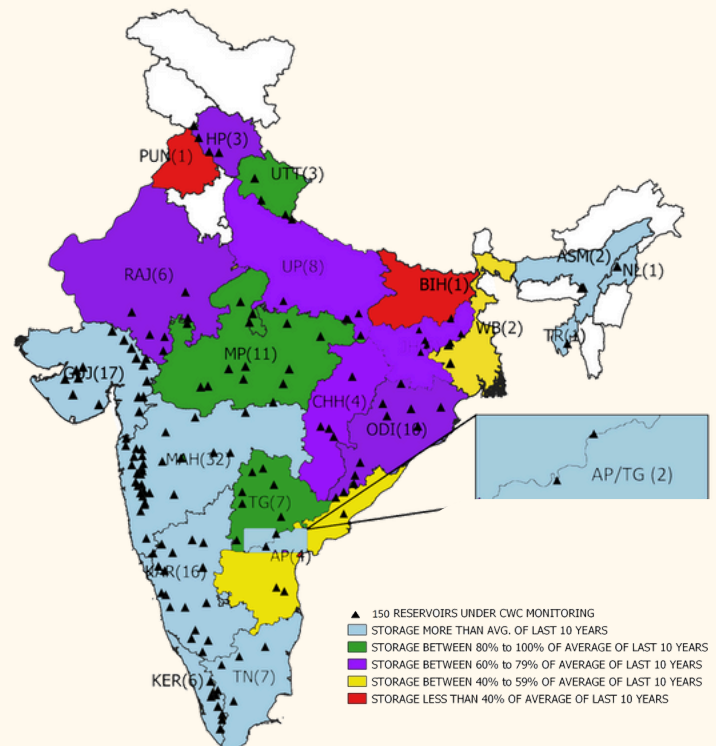


विभाग राजस्थान, जल संसाधन विभाग महाराष्ट्र, सरदार सरोवर नर्मदा निगम लिमिटेड, नर्मदा नियंत्रण प्राधिकरण, केन्द्रीय जल आयोग (मुख्यालय) एवं माही एवं तापी बेसिन संगठन, केन्द्रीय जल आयोग गांधीनगर के समस्त अधिकारी एवं कर्मचारी उपस्थित थे।

## V. Reservoir Monitoring

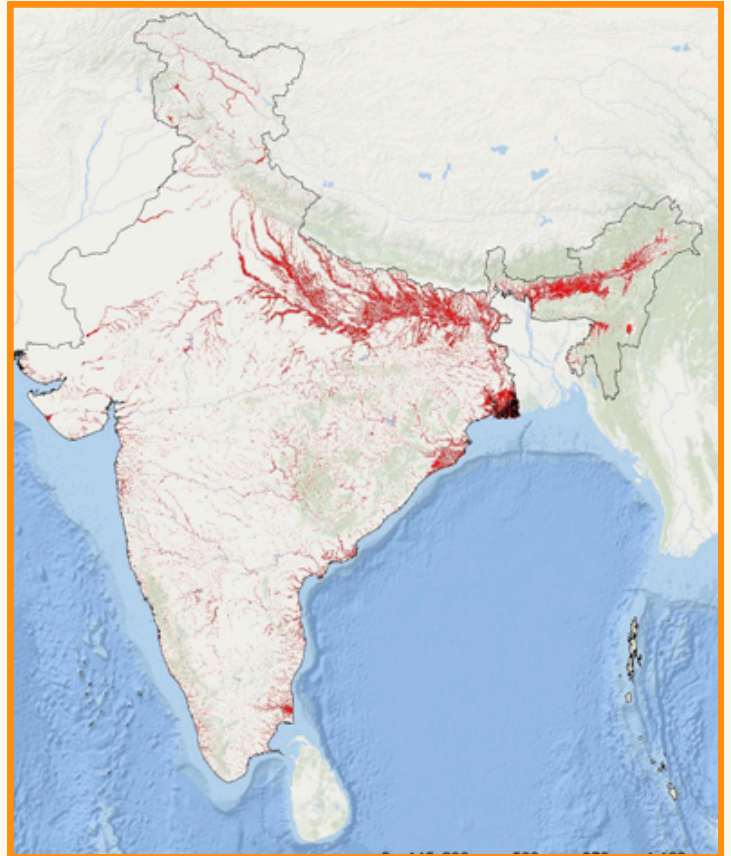
CWC is monitoring live storage status of 150 reservoirs of the country on weekly basis and is issuing weekly bulletin on every Thursday. Out of these reservoirs, 20 reservoirs are of hydro-electric projects having total live storage capacity of 35.299 BCM. The total live storage capacity of these 150 reservoirs is 178.784 BCM which is about 69.35% of the live storage capacity of 257.812 BCM which is estimated to have been created in the country.

As per reservoir storage bulletin dated 25.07.2024, live storage available in these reservoirs is 69.270 BCM, which is 39% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 83.987 BCM and average of last 10 years live storage was 72.411 BCM. Thus, the live storage available in 150 reservoirs as per 25.07.2024 Bulletin is 82% of the live storage of corresponding period of last year and 96% of storage of average of last ten years.



## States / UTs - wise Aggregated Extent of Flood Affected Areas

Sl. No.	State / UT	RBA - 1980 (1953 - 1978)		Total in Mha (c) = (a) + (b)	CWC - 2023 (1988 - 2022)		Total in Mha (r) = (p) + (q)
		Area Affected in Mha (a)	Area Protected in Mha (b)		Area Affected in Mha (p)	Area Protected in Mha (q)	
1	Andhra Pradesh	1.390	0.700	2.090	0.699	1.310	2.009
2	Arunachal Pradesh	-	-	-	0.106	0.100	0.206
3	Assam	3.150	1.305	4.455	2.477	2.110	4.587
4	Bihar	4.260	1.566	5.826	2.914	3.692	6.606
5	Chhattisgarh	-	-	-	0.447	0.000	0.447
6	Goa	-	-	-	0.024	0.003	0.027
7	Gujarat	1.390	0.362	1.752	0.588	0.483	1.071
8	Haryana	2.350	1.095	3.445	0.130	2.000	2.130
9	Himachal Pradesh	0.230	-	0.230	0.172	0.018	0.190
10	Jharkhand	-	-	-	0.413	0.001	0.414
11	Karnataka	0.020	0.001	0.021	0.536	0.005	0.541
12	Kerala	0.870	0.011	0.881	0.253	0.346	0.599
13	Madhya Pradesh	0.260	-	0.260	0.982	0.004	0.986
14	Maharashtra	0.230	0.001	0.231	0.888	0.001	0.889
15	Manipur	0.080	0.073	0.153	0.083	0.132	0.215
16	Meghalaya	0.020	0.075	0.095	0.050	0.015	0.065
17	Mizoram	-	-	-	0.026	0.000	0.026
18	Nagaland	-	-	-	0.016	0.632	0.648
19	Odisha	1.400	0.351	1.751	1.024	0.630	1.654
20	Punjab	3.700	2.407	6.107	0.121	3.190	3.311
21	Rajasthan	3.260	0.016	3.276	0.712	0.082	0.794
22	Sikkim	-	-	-	0.005	0.041	0.046
23	Tamil Nadu	0.450	0.030	0.480	0.665	0.122	0.787
24	Telangana	-	-	-	0.216	-	0.221
25	Tripura	0.330	0.009	0.339	0.062	0.033	0.095
26	Uttar Pradesh	7.336	0.739	8.075	5.174	1.703	6.877
27	Uttarakhand	-	-	-	0.114	0.002	0.116
28	West Bengal	2.650	1.001	3.651	1.840	3.584	5.424
29	A & N	-	-	-	0.020	-	0.019
30	Chandigarh	-	-	-	0.000	-	0.000
31	Daman, Diu and Dadar & Nagar Haveli	-	-	-	0.002	-	0.002
32	Delhi	0.050	0.023	0.073	0.010	0.078	0.088
33	Jammu & Kashmir	0.080	0.012	0.092	0.166	0.217	0.383
34	Ladakh	-	-	-	0.270	-	0.270
35	Lakshadweep	-	-	-	0.000	-	0.000
36	Puducherry	0.010	0.000	0.010	0.008	0.004	0.012
TOTAL		33.516	9.777	43.293	21.213	20.538	41.751
(i) Total Area Affected		34			21.213		
(ii) Area Protected		10			20.538		
(iii) Some protected areas affected due to failure of protection work, already accounted for under (i)		4			-		
Area liable to floods = (i) + (ii) - (iii)		40			41.751*		



**Source:**  
Assessment Area Affected Due to Floods in India ([cwc.gov.in](http://cwc.gov.in))

\* Since there is no specific criteria / study carried out for identification of areas inundated due to failure of some protection works, no deduction has been considered in this study as assumed by RBA-1980. Also, during the intervening period more protection works may have improved and more protection works have been carried out at local levels which may not have been reported.



### Central Water Commission

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