जल शक्ति मंत्रालय
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
भारत सरकार
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
GOVERNMENT OF INDIA

सत्यमेव जयते

IWW

8th INDIA WATER WEEK-2024

" Partnerships and Cooperation for Inclusive Water Development and Management "

17–20 SEPTEMBER 2024

BHARAT MANDAPAM & HALL 12–A, NEW DELHI

Multi-Disciplinary Forum | **4,800 sq.m.** Exhibition | **Promotional** Facilities | **4500+** Delegates

POST SESSION PROCEEDINGS

INDIA'S INTERNATIONAL WATER RESOURCES EVENT

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Chairman,
Technical Committee IWW-2024 &
Chairman, Central Water Commission
Department of WR, RD&GR
Ministry of Jal Shakti | Government of India

Foreword

The Department of WR,RD&GR, Union Ministry of Jal Shakti has organise India Water Week (IWW), since 2012 with focus on the issues related with water and provide a global platform for all National as well as International Stakeholders to generate sustainable solutions in water resources planning and management. Eight such events have been organized so far.

The present i.e. 8th India Water Week-2024 (IWW-2O24) was organized from 17-2O September 2024 at Bharat Mandapam, New Delhi with the theme **"Partnerships and Cooperation for inclusive Water Development and Management".**

The issues related to IWW-2024 theme were discussed and deliberated to build on the existing knowledge and practices as well as new innovative ideas and practices by individuals and institutions in water sector to take the partnerships and cooperation to the next level of 'integration' and promoting integrated water resources management towards an inclusive and sustainable water sector.

The Conference comprise of Ministerial Plenary (1 Session), Global Water Leaders' Plenary (2 Sessions), Country Forum (4 Sessions), Water Leaders' Forum (9 Sessions), Practitioners' Forum (8 Sessions), Startup Forum (1 Session), Youth Forum (1 Session) and Water Convention (18 Sessions). More than 200 technical papers were received and more than 110 presentations were made during the Water Convention (18 Sessions). More than 70 presentations were made during the Water Leaders' Forum (9 Sessions), Practitioners' Forum (8 Sessions) and Startup Forum (1 Session). The main theme was discussed during the four-day multi-disciplinary event.

This **Post Session Proceedings of IWW-2024** contains the recommendations emerged from various technical sessions and highlights of various events conducted during the mega international conference. The recommendations present essential strategies for water resource management, focusing on customized Public-Private Partnership (PPP) models, real-time data-sharing platforms, and strengthened collaboration for climate resilience. It underscores the significance of integrated surface and groundwater use, inter-basin water transfers, and inclusive planning. Key approaches include optimizing operations and maintenance (O&M), improving water-use efficiency, developing climate-resilient infrastructure, and leveraging innovative technologies. Furthermore, it emphasizes groundwater management, regulatory frameworks, governance enhancement, sustainable financing, and the preservation of traditional wisdom. The document also covers disaster mitigation measures such as flood and drought management, as well as monitoring glacier lake outburst floods (GLOF) and enhancing coastal flood preparedness.

I expect that the recommendations of the IWW-2024 would be adequately considered for implementation and inclusion in the policy guidelines and other related documents by the related Union Ministries, Departments of Central and State Governments and other stakeholders at large.

I compliment the entire team of IWW-Secretariat who compiled and concisely prepared the **'Post Session Proceedings of IWW-2024'** and congratulate them for carrying out a commendable job of bringing out the publication.

(Dr. M.K. Sinha)

Member Secretary,
Organising Committee IWW-2024 &
Director General
National Water Development Agency
Department of WR, RD&GR
Ministry of Jal Shakti | Government of India

Preface

India Water Week (IWW) an India's International Water Resource Event has been organized by the Department of WR,RD&GR, Union Ministry of Jal Shakti, Government of India since 2012. The National Water Development Agency (NWDA) under DoWR,RD&GR, Ministry of Jal Shakti has been entrusted with the task of organizing this International event.

The 8th India Water Week-2024 (IWW-2O24) was organized successfully from 17-2O September 2024 at Bharat Mandapam, New Delhi with the theme **"Partnerships and Cooperation for inclusive Water Development and Management".**

The main theme was discussed during the four-day multi-disciplinary conference comprises of Ministerial Plenary (1 Session), Global Water Leaders' Plenary (2 Sessions), Country Forum (4 Sessions), Water Leaders' Forum (9 Sessions), Practitioners' Forum (8 Sessions), Startup Forum (1 Session), Youth Forum (1 Session) and Water Convention (17 Sessions).

More than 4500 delegates from India & abroad participated in the IWW-2024. About 215 delegates from 40 countries participated in the conference. Parallel to the conference, in the exhibition more than 160 Exhibitors from Central, States government, Public Sector undertakings, Private Firms, NGOs, Startups and Schools etc showcased their technologies and inovations.

Denmark, Israel and Australia were the Partner Countries. There were 15 Partner States viz: Tamil Nadu, Odisha, Bihar, Chhattisgarh, Kerala, Haryana, Andhra Pradesh, Gujarat, J & K, Madhya Pradesh, Uttrakhand, Rajasthan, Uttar Pradesh, Karnataka and Telangana. The Six Knowledge Partners for the 8th India Water Week-2024 (IWW-2O24) were International Water Management Institute (IWMI), International Commission on Irrigation & Drainage (ICID), The World Bank (WB), India Water Foundation (IWF), Council on Energy, Environment and Water (CEEW) and Indian Chamber of Commerce (ICC).

I would like to acknowledge the contribution and guidance of Ms. Vini Mahajan, the then Secretary, DoDW&S; Ms. Debashree Mukherjee, Secretary, DoWR, RD & GR and Chairman of the Organizing Committee; Shri Rakesh Kumar Verma, Additional Secretary, DoWR, RD & GR; Shri Chandra Bhushan Kumar, Addl. Secy. & MD, DoDW&S, Smt. Archana Varma, AS & MD (NWM), Shri Subodh Yadav, Additional Secretary, DoWR, RD & GR; Shri K. Vohra, the then Chairman, CWC & Chairman of the technical Committee of IWW – 2024 and Shri Bhopal Singh, the then Director General, NWDA now Member (D&R), CWC.

My compliments to the entire team of IWW-Secretariat for their dedicated work for the preparation of the **Post Session Proceedings.** I hope the recommendations emerged during the IWW-2024 would be adequately useful for policy framing and implementation of user's agencies, stakeholders and general public.

(Baleshwar Thakur)

CONTENT

ADDRESS by DIGNITARIES DURING INAUGURAL FUNCTION

Ms. Vini Mahajan,
Secretary, Department of Drinking Water & Sanitation,
Ministry of Jal Shakti.

परम आदरणीय भारत की राष्ट्रपति जी श्रीमती द्रौपदी मुर्मु जी, माननीय जल शक्ति मंत्री श्री सी आर पाटिल जी, माननीय जल शक्ति राज्य मंत्री श्री राजभूषण चौधरी जी, देबश्री मुखर्जी, Secretary, Department of Water Resources, Senior colleagues, participants from 40 countries across the world, distinguish guests मैं आप सभी को इस आठवें भारत जल सप्ताह 2024 में स्वागत करती हूँ।

सबसे पहले हम माननीय राष्ट्रपति महोदय के तह दिल से आभारी है कि उन्होंने अपने बहुमूल्य समय से इस महत्वपूर्ण आयोजन का उद्घाटन करने के लिए समय निकाला। मैंम आपकी गरिमामई उपस्थित इस कार्यक्रम के महत्व को और बढ़ाती है और हम आपके प्रेरणादायक मार्गदर्शन के लिए उत्सुक हैं। जैसे हम सब जानते हैं हमारे माननीय प्रधानमंत्री जी की दूरदर्शिता थी, अतः जल से जुड़े कई विभागों को मिश्रित करके जल शक्ति मंत्रालय रचित किया गया and Ministry of Jal Shakti has been working ceaselessly on the multiple dimension associated with the proper management of the water resources of the country. As we know, audience knows water is increasingly one of the most challenging issues of our times with more complex by the climate change issues before us. In this ministry we have been working ceaselessly first to ensure that we are able to provide portable drinking water to our citizens. In rural India today well over 15 crores, that is well over 78% of a rural household, have within the house access to safe portable water and almost 12 crores out of those receive that benefits in the last five years.

We are also working as you know and today marks the start actually of the fortnight long Swachh Bharat Abhiyan 2024 marking 10 years of the call to action by the Prime Minister for sanitation in all its dimensions solid and liquid waste management which will also go towards improving the quality of our water sources groundwater as well as surface water.

My colleague Mrs. Debashree and her team have been working ceaselessly on improving the quantity and quality of groundwater, on improving the surface water sources, on making sure that we are able to harvest the rain, catch the rain where it falls when it falls. We are working on interlinking of rivers, the largest program on dam safety in the world is currently under implementation. So many things are happening but the most important this is that these things are happening with the emphasis on community participation and the involvement engagement of all stakeholder. Both National and International expert have been with us in this journey so far. We are looking forward to your continued participation in improving the systems in bringing in new technologies looking at new solutions and in particular water being State subject, the State Governments who are presented today and who have been with us in this journey many of them have come up with innovations and solutions that are appropriate to their context and scalable replicable and we look forward to hearing in the course of this Week Long Event they are experience sharing of best practices learning and moving forward on this agenda and so, once more, I thank the Hon'ble President, आपकी गरिमामई उपस्थिती से आरंभ हो रहे आज इस समागम मे हमें पूरी उम्मीद है कि सप्ताह भर में होने वाले विचार विमर्श और उनसे प्राप्त परिणाम, जल प्रबंधन के भविष्य को सही दिशा दिखाने में महत्वपूर्ण योगदान देंगे। माननीय आप का बहुत बहुत स्वागत बहुत बहुत धन्यवाद। आप सबका धन्यवाद!

जय हिंद!

सभी को राम राम, जय जोहार !
मेरा नाम उजियारो बाई केवटिया, मैं किवाद पंचायत, ग्राम पोंडी, ब्लॉक समनापुर, जिला डिंडोरी, मध्य प्रदेश, भारत की निवासी हूं। भारत सरकार को हमारा थैंक्यू। बैगा समुदाय को भी थैंक्यू।

हमारे पोंडी गांव में जंगल, जल जमीन पहले आग से बहुत जल जाता रहा है, तो हमने सोचा कैसे करके हम आग से बचते हैं और पेड़ की कटाई भी बहुत होती थी। 25 साल पहले भूकम्प में हमारे गांव के जो जंगल, जल जमीन धरती हिल गये थे, तो स्रोत से पानी एकदम से निकल के नालों में चले गया और एकदम से बह जाता रहा। तो हमारे नालों में पानी सूख जाता। नाला, कुंआ, तालाब, झीरिया, कुंड पूर्ण सूख गया तो हमने सोचा कैसे करके हम इस पानी को लाएं।

हमें बहुत तकलीफ हो रही थी यह सोचकर हमने पड़ोसी लोगों को समझाया। उनको समझाया कि यह हमारे लिये नहीं है, आने वाली पीढ़ी के लिए है हमारे नाती पोतों के लिये है। इसलिये हम इसको समझा रहे हैं। हम ग्राम सभा में बैठे और छोटे-छोटे समूह बनाकर बैठे और घर-घर जाकर समझाया। ग्राम सभा में हमने बात रखी तो ग्राम सभा में महिला पुरुष जो बैठे थे, कहा कि सही बात बता रहे हैं इसको हमको समझना है और इसको बचाना है। जंगल को बचाना है तो जमीन भी बचेगा, जमीन बचेगा तो जल भी बचेगा और हमारी आने वाली पीढ़ी के लिए सही रास्ता खुलेगा। हमारे गांव में एक छोटा सा कुंड था, उसी कुंड के पानी में हम नहाते, गाय, भैंस सब आके उसी जगह नहाते। हम लोगों को पीने के पानी की तकलीफ होती तो हम 2-3 किलोमीटर दूर जाते और सिर में रख कर हम पानी लाते और गुजर बसर करते। हम लकड़ी भी जंगल से लाद के लाते और गुजर बसर करते।

गांव के लोग अपनी प्यास बुझाने के लिए कुंड के पानी जिसमें गाय, भैंस भी नहाती थी, को साफ करके पी लेते थे तो हमारे गांव में बीमारी हो गई। उसी समय एक संस्था हमारे गांव में पहुंच गई। उसने बोला कि तुम्हारे गांव में यह बीमारी कैसे हो गई। उल्टी-दस्त से रोज एक-दो लोग खतम होने लगे। संस्था ने सुझाव दिया कि एक कैम्प लगाना है। कैंप लगते-लगते 10-12 लोग खतम हो गये। कैंप लगने के बाद धीरे-धीरे बीमारी कम हुआ तो हम नया झरना से, नल जल योजना से बिना लाइट बिना सोलर पैनल, बिना पैसा से हम श्रमदान करके हमारे गांव में पानी पहुंचा है। अब हम साफ पानी पी रहे हैं जैसे अपन शहर सिटी में बोतल में फिल्टर पानी वैसे हमारे गांव में फिल्टर पानी पी रहे हैं।

हम हमारे गांव से पहले खुले मैदान में शौच करने जाते थे, हमारे गांव में अब घर-घर शौचालय बन गए हैं छोटे बड़े हम सब शौचालय का उपयोग करते हैं। भारत सरकार को थैंक्यू, पेड़ हैं तो पानी है, पानी नहीं तो जिंदगानी नहीं। एक पेड़ मां के बराबर।

Ms. Lakmen Marry Nongkhlaw
Women Water Warrior, Meghalaya.

Greetings from Meghalaya!

I am Lakmen Marry Nongkhlaw from Kyrdemkhla village, East Khasi Hills, Meghalaya. Now I would like to share my story and the story of every woman in my village. My village is located at the distance of about 27 km from Shillong. All though it is not very far from the state capital, yet few years back we still facing acute scarcity of water. We will often have to travel about 1 Km to fetch drinking water and would have to stand in a long queue just to fetch a bucket of water, for washing clothes we have to travel for 1 to 2 km to get to the nearest river and this is not only far but it is also risky for safety. As a result, we do not have enough time to spent with our children and family members. Being the vocal member of the community, I was involved in mobilizing other women in the village to come together into self-help groups to improve our living condition and the village. Initially it was not an easy task for me to make the village leaders understand essentially of water to preserve water sources and to protect trees in the village. It was only in 2016 when I was appointment as the secretary of the Village Employment Council (VEC), my persistent efforts to convince them paid off though slowly but gradually. My first priority after becoming the secretary, VEC was to address the problem of water scarcity in the village. As early most of the word undertaken by the VEC was focus on infrastructures like construction of roads, footpath etc. However, I was able to convince the community to change the focus into water related issues as water scarcity was central to every household problem.

Through Jal Shakti Abhiyan and MGNREGAS, we organized program like tree plantation along with catchment area of the springs and till date we have planted 16000 trees, constructed 5 Water Storage Tanks, renovated 6 Spring Chambers to recharge the water and build 4- Check Dams in our village. Through our focus efforts we now have the available of water taps in specific location in the village which had made us easier to collect water and the spring do not dry up even winter season. We now have more time to spent with our family members and take good care of our children. So I am very grateful to the Government of India for bringing various schemes to uplift the economic status of the rural people like us.

Thank you!

आदरणीय महामहिम को प्रणाम। हम माननीय भारत की राष्ट्रपति श्रीमती द्रौपदी मुर्मू जी के प्रति आभार व्यक्त करते हैं कि उन्होंने आठवें भारत जल सप्ताह– 2024 के उद्घाटन समारोह में अपनी गरिमामई उपस्थिति से हमें गौरवान्वित किया। हम आपके प्रति आदरपूर्वक आभार भी प्रकट करते हैं और आपकी उपस्थिति हम सभी को जल प्रबंधन से जुड़ी चुनौतियों का समाधान करने के लिए सर्वश्रेष्ठ प्रयास करने के लिए प्रेरित और प्रोत्साहित करती रहेगी।

आज के कार्यक्रम में हमारे बीच डेनमार्क, गुयाना, जिम्बाब्वे और तंजानिया के मेरे समकक्ष मंत्री भी उपस्थित हैं। मैं उनका भारत की राजधानी दिल्ली में हार्दिक स्वागत करता हूं। मेरे जल शक्ति मंत्रालय के सहयोगी श्री राजभूषण चौधरी जी, भारत के विभिन्न राज्यों के मंत्रीगण, सचिव श्रीमती विनी महाजन, सचिव श्रीमती देबश्री मुखर्जी, साथ ही जल संसाधन के क्षेत्र में विभिन्न देशों के विशिष्ट प्रतिनिधि और विशेषज्ञ, केंद्रीय और राज्य सरकार के वरिष्ठ अधिकारी, विभिन्न शैक्षणिक संस्थाओं के विद्वान, गैर सरकारी संगठनों और नागरिक समाज के प्रतिनिधि, प्रिंट और इलेक्ट्रॉनिक मीडिया के साथी और अन्य फ्रेंडस भाइयों और बहनों आप सबको वंदन आप सबको प्रणाम।

अभी–अभी हमारे सचिव श्रीमती विनी महाजन जी ने बाताया कि 2019 के पहले करीब 9 मंत्रालय द्वारा पानी के ऊपर काम हो रहा था। हमारे आदरणीय प्रधानमंत्री नरेन्द्र मोदी जी ने इस सोच के साथ कि एक जगह ठीक से काम हो जाए एक जगह केंद्रित हो जाए इसके लिए एक नया जल शक्ति मंत्रालय बनाते हुए सभी मंत्रालय का काम एक जगह संगठित कर के देश की जल की समस्या को हल करने के लिए अग्रसर हुए और यह कदम उन्होंने उठाया। जल की समस्या सिर्फ हमारे देश की समस्या नहीं है पूरी दुनिया में सभी देशों में कम और ज्यादा, छोटी–बड़ी होगी मगर सबको यह समस्या है। जल संचय करना और जल का विवरण, वितरण करना वह भी एक समस्या होती है। अलग–अलग अपनी समस्याओं को हल करने के लिए सभी अपने भौगोलिक स्थिति के आधार पर काम करते हैं। आज के इस कार्यक्रम में जो कि योजना का आठवां कार्यक्रम है इसमें हमें पूरी दुनिया के अलग–अलग देश पानी की इन समस्याओं को हल करने के लिए अलग–अलग जो उपाय करते होंगे – जिस तरह से अपनी तकनीक की प्रक्रिया का पालन करते होंगे, अलग–अलग जो सिस्टम बने होंगे उन सबको हम एक दूसरे के साथ शेयर करें उससे एक दूसरे को फायदा मिलेगा और जल का प्रश्न हल करने के लिए पूरे मानव जाति के हित के लिए हम सब मिलकर काम करें, कॉ–ऑपरेशन करें, टेक्नोलॉजी का आदान–प्रदान हो इसलिए कार्यक्रम किया जाता है।

आदरणीय प्रधानमंत्री नरेन्द्र मोदी जी ने जिस तरह से यहां पर उपाय शुरू किए हैं और उपाय के कारण जो पहले अभी हमने सुना दोनों महिलाओं को जो उन्होंने अपने गांव की बात की, वही समस्या पूरे देश में थी। जल से सबसे ज्यादा रोग होते हैं, बीमारियां होती है और इसके लिए आदरणीय प्रधानमंत्री मोदी जी ने हर घर नल जल की योजना इतने बड़े देश में उन्होंने शुरू की। करीब 15 करोड़ घरों के अंदर अभी यह नल से जल पानी जा रहा है, शुद्ध पानी जा रहा है। WHO की रिपोर्ट के आधार पर कह सकते हैं कि इस योजना के कारण साढ़े 5 करोड़ महिलाओं के रोज के घंटे जो पानी के लिए खर्चे जाते थे और उसमें जाने आने में जो 5:30 करोड़ घंटे रोज के लगते थे उसमें उनकी बचत हुई है। अभी बचे घंटे वे अपने बच्चों के लिए अपने अन्न को उपार्जन के लिए उसका उपयोग कर सकते हैं।

अशुद्ध पानी के कारण जो पहले आरोग्य की समस्या थी जो अभी इन महिलाओं ने बताया कि कई लोग बीमार हो जो थे, अगर जल शुद्ध न हो तो सबसे ज्यादा बीमारियां भी जल से आती हैं और उसी को हल करने के लिए नल से जल की स्कीम बनी। उसके कारण आरोग्य के ऊपर जो खर्च हो रहा था उसके अंदर 8.4 लाख करोड़ की बचत हुई है। हर साल इससे बचत होती है। हर सरकार इस बचत में से अपने विकास के कामों के लिये ज्यादा पैसा आवंटन कर सकती है और लोगों में, बच्चों में, सबके शरीर में बिना वजह जो दवाइयां जाती थीं, इंजेक्शन जाते थे, उसके रिएक्शन भी आते थे, उसमें से उनके शरीर का बचाव हुआ है उनको दवा की आवश्यकता नहीं जो दवा के जो साइड इफेक्ट होते थे उससे उनका बचाव भी हुआ और पैसे का भी बचाव हुआ है।

हर योजना जिसको जहां तक लाने की हम कोशिश करते हैं, हमें पानी की आवश्यकता होती है। मानव जाति के लिए, पशु धन के लिए, एग्रीकल्चर के लिए और इंडस्ट्री के लिए और इन सभी के लिए हमारे पास हमारे देश में सिर्फ चार पर्सेंट (4%) पानी है। विश्व के पास जो टोटल पीने वाले पानी या शुद्ध पानी है उसमें से मात्र चार पर्सेंट पानी हमारे पास में है, पर उसका अगर हम प्लानिंग हो जाए जो हमारे यहां इतनी बारिश आती है कि बारिश का जो पानी सीधा बहकर दरिया में चला जाता है, उसकी बजाय उसका संचय हो और संचय करके जहां भी आवश्यक हो वह पानी पहुंचाया जाए, उसके लिए भी कई बड़ी–बड़ी योजना बनाई। कई डैम बने और हम जानते हैं कि अभी जो हमारे देश में जितनी नदियां है उसके पर करीब करीब सब पर डैम बन गए है या बन रहे हैं। पानी की कमी की यह समस्या हल नहीं हो सकती। इसके लिए डैम बनाना अति आवश्यक है मगर किसान नाराज हो जाते हैं। कई गांव को हमको शिफ्ट करना पड़ता है, उनकी नाराजगी भी आती है, पर्यावरण वादी लोग आकर वहां विरोध करते हैं उसके लिए प्रोजेक्ट भी आगे खींचा जाता है। 25–25 साल एक प्रोजेक्ट पूर्ण करने में लगते हैं और 20–25 हजार करोड़ उस पर खर्च होने के बावजूद भी जो हमारी समस्या है वह संपूर्ण रूप से हल नहीं होती है। उसके लिए 2021 में आदरणीय प्रधानमंत्री मोदी जी ने ''कैच द रेन'' (Catch the rain) की एक योजना उन्होंने शुरू की थी। Rain Water Harvesting के जरिए इसके ऊपर काम करना शुरू हुआ, अभी हमने गुजरात के सूरत में हमारे आदरणीय मोदी जी की उपस्थिति में जो Virtual उपस्थित रहे थे उसके अंदर 24,800 बोर वेल बनाकर जहां से भी पानी निकलता है गांव का पानी, हर गांव का पानी दो तीन जगह बोर करके जमीन में उतारने का प्रयोग किया। 24,800 बोर उसके अंदर कमिट हुए, 2 महीने में वो सब बोर सब कंप्लीट हो जाएंगे और मुझे आपको बताते हुए खुशी होगी कि कल शाम तक में गुजरात के अंदर ही सिर्फ 80 हजार से ज्यादा बोर का कमिटमेंट आया है, लोग पानी को संचय करने के लिए जहां पर जमीन में गांव में जो मोदी जी ने कहा था कि गांव का पानी गांव में, सिम का पानी सिम में यानी खेत का पानी खेत में चला जाए यह भी गांव का पानी अगर गांव में डालेंगे तो नल से जल में भी कई समस्या है कि पानी दिसम्बर जनवरी में खत्म हो जाता है, तो नल से जल पानी पूरा नहीं दे पा रहे । वहां पर भी अगर रैन वॉटर हार्वेस्टिंग करेंगे तो वहां पर भी पानी की समस्या हल हो जाएगी। ऐसे कई प्रयोग हमारे देश के अंदर भी हो रहे हैं। अलग–अलग देशों के अंदर उनके साथ जब हम ये बाते शेयर करते हैं उनकी टेक्नॉलॉजी देखते हैं तो हमें भी लगता है कि हम उसके अंदर और भी ज्यादा काम कर सकते हैं। हम सब मिलकर अगर कोशिश करेंगे तो हमारे आने वाली पीढ़ियों के लिए पानी की समस्या कम कर सकते हैं। श्री अटल बिहारी वाजपेई जी ने कहा था कि तीसरा विश्व युद्ध होगा तो पानी के लिए होगा, मैं आपको विश्वास के साथ कह सकता हूं कि अगर तीसरा विश्व युद्ध भी होगा अगर पानी के लिए भी होगा तो उसके अंदर हमारा देश भारत नहीं होगा, क्योंकि हमारी समस्या हल करने के लिए आप सब जिस तरह से लगे हुए हो जिस तरह से आप मेहनत करने और सभी विद्वान टेक्नॉलॉजी, टेक्नाक्रेट, अधिकारी सभी लोग आम आदमी से लेकर सब लोग जो काम कर रहे हैं उसकी वजह से इस समस्या का हल हम जरूर ढूढेंगे। आदरणीय प्रधानमंत्री मोदी जी का मार्ग दर्शन जो हमें मिलता है और उसके लिए जिस तरह हमें फंड भी देते हैं उसके कारण हम जरूर इस समस्या को हल करने में सफल होंगे ऐसा मुझे विश्वास है। आज के इस कार्यक्रम में आप सब उपस्थित हैं हमारे आदरणीय महामहिम राष्ट्रपति जी भी यहां पर पधारे हैं, उनका भी और आप सबका भी, आभार व्यक्त करता हूं बहुत–बहुत धन्यवाद।

भारत माता की जय !

यह आयोजन, भारत सहित, पूरे विश्व–समुदाय के लिए बहुत महत्वपूर्ण है। जल–संसाधन के क्षेत्र से जुड़े देश–विदेश के प्रतिभागियों को प्रभावी मंच प्रदान करने के लिए मैं जल–शक्ति मंत्रालय की पूरी टीम की सराहना करती हूं। आप सभी प्रतिभागियों ने पूरी मानवता से जुड़े एक अत्यंत महत्वपूर्ण विषय पर चिंतन–मंथन करने के लिए उत्साह दिखाया है। इसके लिए मैं आप सबकी प्रशंसा करती हूं। मुझे बताया गया है कि जल–संसाधन के विभिन्न आयामों से जुड़े नीति–निर्माता, विशेषज्ञ, प्रबुद्ध नागरिक, उपभोक्ता समूह और अन्य सभी हितधारक गहन विचार–विमर्श करेंगे तथा भविष्य के लिए व्यावहारिक सुझाव प्रस्तुत करेंगे।

इस 'भारत जल सप्ताह–2024' का लक्ष्य है – समावेशी जल–विकास और प्रबंधन। इस लक्ष्य को प्राप्त करने के लिए आपने सही माध्यम चुना है। वह माध्यम है – साझेदारी और सहयोग।

समावेशी जल–विकास का अर्थ है – 'जल–सर्वोदय' – अर्थात प्रत्येक व्यक्ति के लिए जल की उपलब्धता सुनिश्चित हो। सबके लिए जल उपलब्ध कराने की व्यवस्था, प्राचीन काल से ही हमारे देश की प्राथमिकता रही है। आज से लगभग 23 सौ वर्ष पहले के ग्रन्थ 'अर्थ–शास्त्र' में कौटिल्य ने लिखा है कि 10 परिवारों के लिए एक सार्वजनिक कुआं उपलब्ध होना चाहिए। उस ग्रंथ में उल्लेख किया गया है कि पानी के बहाव की व्यवस्था कराना नगर के अधिकारियों की जिम्मेदारी है; यदि कोई व्यक्ति पानी के बहाव को रोकता है तो उस पर जुर्माना लगेगा। सदियों की विकास–यात्रा के बाद भी, आज के युग में हम देखते हैं कि water drainage पर निर्मित अवरोधों के कारण, बारिश होने पर, जगह–जगह जलभराव और बाढ़ की स्थिति उत्पन्न हो जाती है, जन–जीवन अस्त–व्यस्त हो जाता है।

चन्द्रगुप्त मौर्य और कौटिल्य से भी बहुत पहले ऋगवेद में पानी के महत्व के बारे में अनेक उल्लेख मिलते हैं। हमारे समाज में जल–संसाधन को बहुत मूल्यवान माना जाता था। ऋगवेद की एक ऋचा है:

अप्सु अन्तः अमृतम्
अप्सु भेषजम्

अर्थात – जल में अमृत है, जल में औषधि है।
यानी जल जीवनदायी अमृत की तरह है – मानवता के लिए तथा सभी प्राणियों और वनस्पितियों के लिए।
आजादी का अमृत महोत्सव मनाने के दौरान देश में 60 हजार अमृत सरोवरों का विकास अथवा पुनरूद्धार किया गया। यह प्रयास जल–संचय की हमारी सांस्कृतिक परंपराओं से जुड़ा हुआ है। लद्दाख से लेकर केरल तक, हमारे देश में, जल–संचय और प्रबंधन की प्रभावी पद्धतियां विद्यमान थीं। ऐसी पद्धतियां अंग्रेजी शासन के दौरान धीरे–धीरे लुप्त होती गईं। हमारी पद्धतियां प्रकृति के साथ सामंजस्य पर आधारित थीं। प्रकृति पर नियंत्रण करने की सोच के आधार पर विकसित पद्धतियों के बारे में, पूरे विश्व में, अब फिर से विचार किया जा रहा है। प्रकृति के साथ सामंजस्य के मार्ग को बेहतर माना जा रहा है।

Water Resource Management के विभिन्न प्रकार के अनेक प्राचीन उदाहरण पूरे देश में उपलब्ध हैं जो आज भी प्रासंगिक हैं। हमारी प्राचीन जल–प्रबंधन प्रणालियों पर शोध होना चाहिए और आधुनिक संदर्भ में उनका व्यावहारिक उपयोग होना चाहिए।

सरोवर, कुआं, तालाब, जल–कुंड और पोखरी, ऐसे सभी जल–निकाय, सदियों से हमारे समाज के लिए water-bank रहे हैं। आप bank में पैसा deposit करते हैं। उसके बाद ही आप bank से पैसा निकाल कर उसका उपयोग कर सकते हैं। यही बात पानी के विषय में लागू होती है। मानव समाज के लोग पहले जल–संचय करेंगे तभी वे जल का उपयोग कर पाएंगे। धन का दुरूपयोग करने वाले लोग संपन्नता से निर्धनता की स्थिति में चले जाते हैं। उसी तरह वर्षा से समृद्ध क्षेत्रों में भी जल का अभाव दिखाई देता है। सीमित आय का समझदारी से उपयोग करने वाले लोग अपने जीवन में आर्थिक संकट से बचे रहते हैं। उसी तरह कम वर्षा वाले क्षेत्रों में जल का संचय करने वाले ग्राम–समूह जल संकट से बचे रहते हैं। भारत में राजस्थान और गुजरात के कई क्षेत्रों में ग्रामवासियों ने अपने प्रयासों से, जल–संचय के प्रभावी तरीके अपनाकर, जल के अभाव से मुक्ति पाई है। आज दो बहनों ने अपने अनुभव साझा किए हैं कि कैसे उन्होंने अपने क्षेत्र में जल की असुविधा को दूर किया है। वे सही मायने में प्रशंसा की पात्र हैं। इसी तरह हम सब अपने क्षेत्र में प्रयास करेंगे तो जल के अभाव को दूर कर सकते हैं। हम जानते हैं कि जंगलों और पहाड़ों में जीवित झरना होता है जो कभी मरता नहीं है। झरने के इस पानी का हम संचय कर सकते हैं और सुबह से शाम तक के पानी की जरूरत के लिए उपयोग कर सकते हैं। आप सरकार को भी बता सकते हैं कि कहां झरना है और कहां पानी की आवश्यकता है। जैसे कि इन दो बहनों ने सरकार के सहयोग से, पानी की समस्या को दूर किया है।

जल–संचय के बारे में तो मैं यहां तक कहना चाहूंगी कि पानी की एक–एक बूंद मोती की तरह मूल्यवान होती है। उसे संचित करने का हर उपाय हमें करना है। हमारे यहां लोकप्रिय कहावत है कि बूंद–बूंद से सागर भरता है। बूंद–बूंद से सागर भरने के इस प्रयास में सभी देशवासियों की तथा जल–प्रबंधन से जुड़े सभी हितधारकों की भागीदारी आवश्यक है।

देवियो और सज्जनो, यह प्रसन्नता की बात है कि 'जल जीवन मिशन' के तहत ग्रामीण घरों में नल से जल पहुंचाने के सरकार के प्रयासों से, बहुत कम समय में, बहुत बड़ा बदलाव आया है। मुझे बताया गया है कि पूरे देश में 78 प्रतिशत से अधिक ग्रामीण घरों तक नल का कनेक्शन पहुंचाया जा चुका है।

केन्द्र सरकार ने वर्ष 2021 में Catch the Rain – Where it Falls When it Falls के संदेश के साथ शहरी तथा ग्रामीण क्षेत्रों में ब्लॉक स्तर पर एक अभियान शुरू किया है। इस अभियान का उद्देश्य जल संरक्षण, वर्षा के जल का संचय तथा जल–प्रबंधन के अन्य महत्वपूर्ण लक्ष्यों को प्राप्त करना है। वन–संपदा को बढ़ाना भी जल–प्रबंधन में सहायक होता है। व्यापक स्तर पर वृक्षारोपण के द्वारा भूजल का स्तर ऊपर उठता है। मुझे विश्वास है कि सभी देशवासियों की भागीदारी से 'एक पेड़ मां के नाम' लगाने का अभियान बहुत प्रभावी सिद्ध होगा। जल संचय और प्रबंधन में बच्चों की भी महत्वपूर्ण भूमिका होती है। यहाँ बहुत सारे बच्चे आए हैं। वे देश का भविष्य हैं। हम पानी का उपयोग सुबह से शाम तक करते हैं। जल नहीं, तो जीवन नहीं। इसलिए बच्चों को भी जानकारी होनी चाहिए। वे अपने परिवार और पास–पड़ोस को जागरूक कर सकते हैं और खुद भी जल का समुचित उपयोग कर सकते हैं।

जन–शक्ति के बल पर ही जल–शक्ति का समुचित संग्रह और उपयोग किया जा सकता है। जल–शक्ति के समुचित संचय तथा उपयोग के लक्ष्यों को प्राप्त करने के लिए हमें जन–भागीदारी से भी आगे जाना होगा; जल–शक्ति के प्रयासों को जन–आंदोलन का रूप देना होगा; सभी नागरिकों को जल–योद्धा की भूमिका निभानी होगी। जैसे कि हमारी बहनें जल योद्धा के रूप में कार्य कर रही हैं।

देवियों और सज्जनो, विश्व समुदाय ने, संयुक्त राष्ट्र संघ द्वारा अपनाए गए Sustainable Development Goals के तहत, वर्ष 2030 तक, सभी के लिए जल की उपलब्धता तथा स्वच्छता को सुनिश्चित करने का लक्ष्य रखा है। इन लक्ष्यों में, महिलाओं और लड़कियों की जल तथा स्वच्छता संबंधी आवश्यकताओं का विशेष उल्लेख किया गया है। जल के अभाव से पीड़ित लोगों की संख्या कम करने का लक्ष्य, पूरी मानवता के लिए बहुत महत्वपूर्ण है। Sustainable Development Goals के तहत, जल और स्वच्छता प्रबंधन में सुधार के लिए स्थानीय समुदायों की भागीदारी को समर्थन देने और मजबूत बनाने पर जोर दिया गया है। इस आयोजन का विषय भी भागीदारी और सहयोग पर केन्द्रित है।

पृथ्वी पर उपलब्ध कुल पानी का 2.5 प्रतिशत ही fresh water या मीठा पानी होता है। उसमें भी एक प्रतिशत ही मानव समाज के उपयोग के लिए उपलब्ध हो पाता है। जल–संसाधन सीमित हैं। उनके सक्षम उपयोग से ही सबके लिए जल की आपूर्ति संभव है। विश्व के जल–संसाधन में भारत का हिस्सा चार प्रतिशत है। हमारे देश में उपलब्ध जल का लगभग 80 प्रतिशत कृषि–क्षेत्र के उपयोग में आता है। कृषि के अलावा विद्युत उत्पादन, उद्योग तथा घरेलू जरूरतों के लिए पानी की उपलब्धता अनिवार्य है। पानी के सक्षम उपयोग द्वारा ही संतुलित तराके से विभिन्न क्षेत्रों की आवश्यकताओं को पूरा किया जा सकता है।

मैं आशा करती हूं कि इस आयोजन में होने वाले व्यापक विचार–विमर्श के आधार पर, सभी हितधारकों द्वारा, साझीदारी और सहयोग के प्रभावी तराके तय किए जाएंगे। मैं चाहूंगी कि सभी प्रतिभागी सर्व समावेशी जल–प्रबंधन व्यवस्था को बढ़ावा देने के लिए हर संभव प्रयास करें। आज हम सब जल–सर्वोदय का संकल्प लें। इस शुभ संकल्प को सिद्ध करने के मार्ग पर आप सब तेजी से आगे बढ़ें, इसी कामना के साथ मैं अपनी वाणी को विराम देती हूं।

धन्यवाद,
जय हिन्द!
जय भारत!

ADDRESS by DIGNITARIES DURING VALEDICTORY SESSION

Brief Report & Important Recommendations of **8th India Water Week-2024** by **Shri Rakesh Kumar Verma,** Additional Secretary, DoWR, RD&GR, MoJS

Inauguration of 8th India Water Week 2024

Ministerial Plenary

Honorables Ministers from **Denmark**, **Guyana**, **Tanzania** and **Zimbabwe** graced the occasions & shared their views. Honorable Ministers of Water Resources from the State of **Goa, Manipur** and **Chhattisgarh** also addressed.

Global Water Leader's Plenary-I

Global Water leaders highlighted the challenges and solutions for water sector and need for partnership and collaboration

Global Water Leader's Plenary-II

Water Experts from various International Organizations and partner countries shared their vision for water resources management in holistic manner

Water Leaders Forum

Partnership & Co-operation for Integrated Water Resources Management (GWP & IWF)

Public Private Partnerships in Water Sector (World Bank)

Water Leaders Forum

Partnerships for Accelerating Innovation in Water Sector (World Bank)

Sustainable Water Management for Industry and Businesses (CII & ICC)

Water Leaders Forum

Integrated Surface and Ground Water Storage Management (IWMI)

Integrated Flood Management (ICID & CWC)

Water Leaders Forum

Partnerships for Climate Action in Water Sector (CEEW)

Circularity in Wastewater Management (CEEW)

Water Leaders Forum

Demand Management and Water Use Efficiency (IWMI)

Country Forum

6th India EU Water Forum event was organized by our partner organization **European Union**

Country Forum

Country Forum events were organized by our partner countries **Denmark, Australia, Israel** and **Cambodia, Indonesia, Morocco, Singapore, Tanzania** & **Zimbabwe**

Practitioner's Forum

Sustainable River Health Management

Partnerships with Community & NGOs for convergent action

Practitioner's Forum

Integrated Water Management in Agriculture – Irrigation 4.0

Springshed Management & Conservation Initiatives for Hilly States

Practitioner's Forum

Open, Integrated and Shared Water Data and Informatics

Achieving Universal Access to Drinking Water in Rural Areas

Practitioner's Forum

Partnership and Cooperation with NGOs for Inclusive Water Development and Management

Water Prosperous World : Synergising Hrit Actions for Ecological Sustainability and Human Wellbeing

Start-up Forum

Smart Water Tools and Technology

In partnership with Ministry of Housing and Urban Affairs, startups were invited for showcasing their innovative solutions.

Youth Forum

Role of Water in Socio-economic Development of the Country

An exclusive event for school children focusing on efficient use of water, water recycle & reuse

Exhibition

143 numbers of exhibitors have displayed their innovative products & State-of-the-art Technology

WASH Forum

The International Wash Conference 2024 to foster interdisciplinary dialogue and collaboration to ensure the equitable and efficient utilization of water resources for present and future generations.
100+ papers on various aspects of drinking water and sanitation were presented during the week. It included presentations in SPM-NIWAS Kolkata and also on online platform.

Water Convention

18 Sessions on 7 Themes of Water Convention were organised

Water Convention

Collaboration & Cooperation for Water Security

- Tailored PPP Models for Water Projects
- Real-time Date Sharing platform
- Cooperation for Climate Resilience
- Synergizing Cooperation across boundaries

Integrated Water Resources Development & Management

- Conjunctive Use of Surface & Groundwater
- Expedite Inter basin water transfer
- Promote inclusiveness in Water Planning
- Effective redressal of water quality issues

Water Convention

Challenges in Water Sector Infrastructure

- Expansion of micro-irrigation systems
- Improved O&M for Water Projects
- Source Sustainability for water uses
- Enhancement of water use efficiency

Risk and New Approaches to Climate Resilience

- Develop Climate Resilient Infrastructure
- Climate Change Mitigative Measures
- Innovative Technology for Climate Resilience
- Vulnerability Assessment of Water Bodies

Water Convention

Ground Water Sustainability and Management

- Modern techniques for Ground Water Assessment
- Participatory Approach for Groundwater Management
- Regulatory Framework for prevention of groundwater contamination
- Integrated Groundwater Modelling

Water Governance and Financing

- Strengthening water governance
- Water Finance Strategies
- Enhanced Women Participation
- Preserve Traditional Wisdom

Water Convention

Water related Disasters and its Management

- Integrated Flood Management
- Drought Mitigative Measures
- GLOF Monitoring
- Coastal Flood Preparedness

Cultural Event

A cultural evening 'Jalam' portraying the importance of water for mother earth by 'Samudra' a institution of performing arts from Kerala

THANK YOU

For Your Great Attention

Hon'ble Minister Ministry of Jal Shakti Shri C R Paatil Ji, Hon'ble Minister of State Ministry of Jal Shakti Shri Raj Bhushan Choudhary Ji, Ms. Vini Ma'am my colleagues on the dais, dignitaries, colleagues, delegates who have all assembled here today after 3-days of brainstorming, after 3-days of Manthan, Chintan on the issue of Water. A very warm welcome to all of you.

Good evening!

It gives me immense pleasure to welcome you all to the valedictory session of the 8th India Water Week. I would like to extend also a very warm welcome to the Hon'ble Minister of Jal Shakti and Hon'ble MoS both of whom have been guiding us in all are endeavour and who are the bull walk, who are the pillars behind our success. सर, बहुत-बहुत शुक्रिया आपके मार्गदर्शन और आपके सपोर्ट के लिये।

I extent a very hearty warm welcome also to all the dignitaries, to all the Partner States, the foreign delegates, the distinguished Chairs & Co-Chairs, the keynote Speakers, Panelist, the Exhibitors and all the participants, the people who have been here through the three days, but also those who are here at the valedictory session thank you for making this event such a grand success.

Over the past few days we have witness insightful discussions, dynamic exchanges and innovative solutions in that addressing the critical challenge of water management. I would like to extent my gratitude to all the participants, speakers and partners who have make this event success. As we gather here today to conclude this week of collaboration, it is important to reflect on the key take aways and set the course for a future effort in the water sector.

This year's theme **"Partnership and Cooperation for Inclusive Water Development and Management"** has highlighted the critical importance of collaboration. किस तरह हम एक साथ काम कर सकते है, किस तरह एक दूसरे से सीख सकते है, किस तरह पानी से जुड़े हुए सवालो को एक दूसरे के साथ साझा कर सकते है और उनका हल ढूंढ सकते है। यही हमारा इस वॉटर वीक का मकसद था।

During the event we have seen the inspiring examples of how shared responsibility and cross sectoral partnership can pave the way for innovative, sustainable and inclusive solution to water management. India with its vast geographical diversity and complex river systems faces unique challenges in insuring sustainable access water for all. These challenges are compounded by the growing pressure of Climate Change, Population, Urbanization and Industrialization. Yet with all are challenges we have great opportunities to develop innovative technologies, strengthen policy framework and foster cooperation.

The India water Week aims to provide a forum where we learnt from each other create network to implement workable solutions. It also aims to provide a forum where shared challenges are discussed we may not have answers yet, but we can discuss those challenges so that a community of Water Practitioners those of you who gathered here today can intensify our efforts to find answers to those challenges.

As we conclude this edition of the 8th India Water Week, we recognized that our work does not end here. In-fact it is just the beginning as all beginnings. We must now take forward the valuable insights, innovations and partnerships form during this event and translate them into action. Before I conclude I will remiss in my duties if I do not thank our Hon'ble Minister, again the dignitaries who are present here, our International Partners for so much enthusiasm and support and all the participants for their unwavering commitments to the cause of Water Management. I would like to also take a second to applaud the efforts of National Water Development Agency, the Central Water Commission, Central Ground Water Board all the other organizations of the Ministry, the Drinking Water & Sanitation, The WASH Forum. We all work together and this and the State Government all of us we all work together to make this event very sounding success. This is not an event of Ministry of Jal Shakti this is an event of all Water Practitioners across India and hopefully in future across the globe.

Thank you! And we will see you two years hence.

नमस्कार

इंडिया वॉटर वीक के आज के समापन के कार्यक्रम में, हमारे बीच उपस्थित हमारे MoS श्री राजभूषण चौधरी जी, सेक्रेटरी श्रीमती विनी महाजन जी, सेक्रेटरी श्रीमती देबश्री मुख़र्जी जी, श्री अशोक मीना जी, डाईस पर बैठे हुए सभी मंत्रालय के अधिकारीगण और अलग अलग क्षेत्र से, अलग अलग राज्यों से, अलग अलग देशों से आए हुए सभी आमंत्रित भाइयो और बहनों आप सब को नमस्कार, आप सब को प्रणाम।

यह आठवां वॉटर वीक का कार्यक्रम का आयोजन किया गया था, आप सब की उपस्थिती के कारण, आप सबने जो इंटरेस्ट लिया, आप सब के इनवोलमेंट के कारण मंत्रालय के सभी अधिकारीगण इस कार्यक्रम की सक्सेस के कारण बहुत खुश है क्योंकि आप सबने बहुत ज़्यादा इनवाल्व होके जो काम किया जो अपेक्षा से ज़्यादा था।

जल प्रबंधन और जल संचय के ऊपर चर्चा करने के लिये और चर्चा में, जो चर्चा होगी उस के अंदर जो कुछ ज़मीन पर काम होता है उसके लिये यह आयोजन किया गया था। हम आपको विश्वास दिलाते हैं कि हम मिलकर, आपने जो सजेशन दिये हैं उस के ऊपर हम ज़रूर काम करेंगे। विदेशों से आए कई मेहमान कई मिनिस्टर्स जिन को इन्वाइट किया था वो भी आये शायद आज वो यहा तो नहीं है मगर मै एक बात कह सकता हूँ कि वो हम से अपेक्षा के लिए आये थे। हमसे कुछ सीखना चाहते थे, हमारे देश में जल प्रबंधन मे क्या व्यवस्था है, जल संचय पे क्या काम हो रहा है वो जानना चाहते हैं, और उनको भी जो उनके साथ चर्चा के दौरान ऐसा लगता है कि उनको भी यहाँ की व्यवस्था देखते हुए वो यहाँ आये और खुशी व्यक्त की, उन्होने कुछ सीखा है जो उनके देश के अंदर उन के काम में आयेगा।

यहां पर अभी जो प्रदर्शनी के बारे में बात की। आप लोगों ने बढ़ चढ़कर वहाँ हिस्सा लिया और प्रदर्शनी मे जो आपने काम किया था जो प्रदर्शित हुआ, वो जो हमने देखा तो हम को लगता है कि आप लोग समय से आगे चलते हुए अपने अपने क्षेत्र में काम कर रहे हैं। हमारे अधिकारीगण भी सालों से इस के ऊपर काम करते हुए उन्होने इस हद तक पहुंचाया है कि जो देश की अपेक्षा थी। आदरणीय प्रधानमंत्री श्री नरेंद्र मोदी साहब की लीडरशिप में देश को पानी की समस्या से कैसे हम को छुटकारा मिला है इसके लिए हम जो कोशिश कर रहे थे, आज यह संतोष उन के मन मे भी है। और मैं मानता हूँ कि आने वाले दिनों के अंदर हमारे आदरणीय प्रधानमंत्री श्री नरेंद्र मोदी साहब की लीडरशिप में इस देश में जो पानी की समस्या है और जो थी, और "थी और है" दोनों के अंदर बहुत सा डिफ्रेंस हुआ है बहुत सा प्रोग्रैस भी हो चुका है। टेक्नोलॉजी का भी उपयोग हम करते हैं। हमारे देश के जो किसान हैं, खेत के अंदर भी एक जुगाड़ का सिस्टम अपनाते हुए पानी की समस्या को भी हल करते हैं, पानी की जो आवश्यकता है उस को भी हल करते है। हमने तो देखा है कि आप लोगों ने पानी के उपर जो भी काम किया हैं उस के अंदर भी विविध प्रकार के काम आप लोग करते हैं। आप सबकी अलग-अलग प्रकार की मास्टरी है। मैं मंत्रालय के हमारे सभी अधिकारी से विनती करूंगा के आप लोगो के जो सजेशन आये है उस के हम अलग अलग डिपार्टमेंट कर लेंगे और अलग-अलग भागों में उसे डालते हुए उतने लोगों को अलग अलग बुलाएंगे उनके साथ उसी विषय के उपर चर्चा करेंगे। आपसे और ज़्यादा सजेशन लेंगे, आप को इनवाल्व भी करेंगे और हम सब साथ मिल कर आप के सजेशन के उपर काम करेंगे।

मैं आप को इतना विश्वास दिलाता हूं कि आने वाले दिनों में आदरणीय प्रधानमंत्री मोदी साहब के लीडरशिप में, हमारे पास जो पानी है 4%, विश्व का सिर्फ 4% पानी है मगर वो जहाँ पानी जिस को चाहिए वो पानी उस को मिले जो मोदी साहब ने कहा है गाँव का पानी गाँव में होना चाहिए, सिम का पानी सिम में यानि खेत का पानी खेत में होना चाहिए, और यह सब से बड़ा मुझे लगता है जो आवस्यकता को अगर हमें पूरा करना है तो इस के ऊपर हमें बहुत ज़्यादा ज़ोर देना पड़ेगा। मैं आपसे शेयर भी करना चाहूंगा, अभी हमने 6 September को सूरत में एक कार्यक्रम किया था, हमने पहले तो सोचा था रैन वॉटर हार्वेस्टिंग (Rain Water Harvesting) जो आदरणीय प्रधानमंत्री मोदी जी ने 2021 मार्च मे कहा था "Catch The Rain" और उसके ऊपर काम करते हुए जो Rain Water Harvesting की बात थी, मोदी साहब वर्चुअल उस कार्यकम मे आए थे तो 24,800 बोर, पानी के लिए नहीं, पानी डालने के लिए, जो लोगो के कमिटमेंट हुए सरकार के साथ, मंत्रालय ने एक रुपये भी नहीं दिया, मगर अलग अलग जो योजना है उसमे से, लोगो के इनवोलमेंट से उस दिन वह कार्यक्रम हुआ और कल शाम तक हमें गुजरात मे लगभग 80,000 एसे बोर करके पानी को ज़मीन पर उतार कर जल संचय करने का उन्होंने तय किया।

मैं आप को कहना चाहूंगा हम पानी की समस्या से निपटने के लिये, जल संचय करने के लिये हम बहुत बड़े बड़े Dam बनाते है। Dam बनाने मे किसानों की ज़मीन जाती है उनका विरोध होता है गावं को शिफ्ट करने पड़ते है, उन का विरोध होता है। उस का खर्च होता करीब 20-25 हज़ार करोड़ रुपया और इन सभी समस्या को हल करते हुए जब डैम बनता है तो उसको 25 साल लग जाते हैं। और आज की तारीख मे जितनी भी नदियाँ हैं जहा पर हम डैम बना सकते हैं, करीब करीब वो डैम हो गए हैं या पाइप लाइन में हैं। अब और ज़्यादा डैम बनाने की संभावना कम होती जा रही है। जो अटल जी का सपना था river linking के लिए आदरणीय प्रधानमंत्री मोदी जी ने वह सपने को साकार करने के लिए आगे बढ़ाया है। और मैं आप को कहना चाहूंगा कि आने वाले कुछ ही दिनों में या महीनों में, एक-दो महीनों के अंदर भी हम बहुत बड़ी नदियों का रिवर लिंकिंग का एक कार्यकम को हम उसको आकार देते हुए उसके आगे बढेंगे। इस देश के लोगो को भी लगता है के रिवर लिंकिंग होना चाहिए। तो रिवर लिंकिंग कि वजह से जहाँ पानी चाहिए वहाँ मिलेगा, जहा पानी ज़्यादा है बाढ़ आती है उस पानी को भी हम ठीक से संचालन कर पाएंगे। हमने जो Rain Water Harvesting की बात जो मोदी जी ने की, ज़मीन में पानी उतारने के लिए शुरू की, उसका कारण भी है कि पाताल में ज़मीन के अंदर जल संचय की बहुत बड़ी कपैसिटी है और वो पानी ज़मीन में संचय होगा और वह पानी आप को वापस भी मिलेगा। गाँव का पानी गाँव में उतारदो, घर का पानी घर के पास उतार दो। जो करीब 1 लाख लिटर पानी एक फॅमिली यूज़ करती है मगर वो पानी ज़मीन में नहीं उतारती है। पहले फ़ेस में हमने तय किया कि हर गाँव का पानी ज़मीन मे जाना चाहिए, बह कर बाहर नहीं जाना चाहिए और दूसरे फेस के अंदर हम हर घर का पानी भी ज़मीन में उतरे उस के लिए भी कोशिश करने वाले हैं। हमने गुजरात से शुरू किया मगर मेरी मुखमंत्री राजस्थान और मुखमंत्री मध्य प्रदेश के साथ भी बात हुई। हम लोग करीब 10-15 दिनो के बाद वहाँ पर भी काम शुरू कर रहे हैं। आप लोग भी जब इतना पानी पर काम करते हो तो, आप जहां रहते हो, जिस गाँव में रहते हो, जिस शहर मे रहते हो, वहाँ पर भी इसके लिए जागरूकता लाएँ, सरकार की मदद मिलेगी, अलग अलग फ़ंड से कुछ न कुछ आर्थिक मदद मिल जाएगी। कुछ NGO से मदद मिलेगी। आप इस का आयोजन करेंगे और आपको आवश्यकता होगी तो हम आप के साथ खड़े होकर, हम सब मिल कर आने वाले दिनो मे पूरी दुनिया में सबसे अच्छा, पानी पर जल प्रबंधन, जल संचय का अगर कोई काम होगा तो हमारा होगा। आपकी ताकत के आधार पे मैं कह सकता हूँ कि इतनी बड़ी संख्या मे जब आप लोग यहा पे जुड़े हैं आप को पानी की चिंता है। जल प्रबंधन के लिए आप ने तीन तीन दिन टाइम दिया। रजिस्ट्रेशन बहुत बड़ी मात्रा में हुआ जो हमारी अपेक्षा से बाहर था। इसके लिए मैं आप सब को बहुत बहुत बधाई देता हूँ। हमारे लिए जल्दी मिलना संभव नहीं हो पाता है, बहुत बड़ा टाइम निकल जाता है, पर मैंने कहा कि हम को अलग अलग ग्रुप के अंदर भी हम आप को बुला कर आप के साथ बात करेंगे और आप की मदद के साथ हम सब मिल कर आगे बढ़ेंगे, यही मेरी आप से गुजारिश है। आप का बहुत बहुत धन्यवाद करते हुए मैं आप से इजाज़त चाहूंगा, हम लोग फिर से मिलेंगे इस वादे के साथ बहुत बहुत धन्यवाद, आभार।

INAUGURATION OF PORTAL & PUBLICATIONS

by Shri Raj Bhusan Choudhary, Hon'ble Minister of State, MoJS (Valedictory Session)

1. Bhuneer Portal (https://cgwa-bhuneer.mowr.gov.in) developed by CGWD

The Central Ground Water Authority under the Ministry of Jal Shakti in collaboration with the National Informatics Centre has developed an advance Bhu Neer portal to revolutionized Ground Water Regulation across the Country.

This has combined technological innovation with regulatory transparency and set to be given charge India's Ground Water registration fulfilling Prime Minister's Vision of ease of doing business.

2. National Register of Major and Medium Irrigation Projects in India

The Central Water Commission has compiled the information regarding completed ongoing major, medium and ERM irrigation projects in the country as per the compendium there are 1,323 completed major and medium irrigation projects in this country having the total potential of 47.62 million hectares and a further 397 are under execution having a total of 17.40 million hectares of potential.

3. Assessment of Water Resources of India

The Central Water Commission has completed basin wise assessment of Water Resources for the period of 1985-86 to 2022-23. This study would be useful for planning the Water Resources.

4. Compendium On Sedimentation Of Reservoirs In India

The Central Water Commission has completed study and prepared publication compendium on Sedimentation Reservoirs in India 2024

5. Coffee Table Book on High Resolution Aquifer Mapping in Arid Regions of North Western India

The Central Ground Water Board under the Department of Water Resources, River Development & Ganga Rejuvenation conducted Heli-borne Geophysical Groundwater Survey under the Groundwater Management and regulation Scheme. Major findings of Heli-borne Survey are in-depth understanding of shallow and deeper aquifers.

AWARDS

The 8th India Water Week-2024 also feature an exhibition, the exhibition was a platform for Central, State Government Organization, Corporate entities and our Country Partners to showcase their expertise and share their cutting edge knowledge in the Water Management Sector. Around 160 exhibitors participated in the Exhibition and showcased their projects, technology solutions etc.

With the sense of acknowledgement of their efforts and to induce their motivation and competitive sprite Ministry of Jal Shakti awarded the Best Stall in the following 4-categories with Memento and a certificate of appreciation:

CENTRAL MINISTRIES AND ORGANIZATIONS

CENTRAL WATER AND POWER RESEARCH STATION, PUNE

STATE GOVERNMENT

KERALA WATER RESOURCES DEPARTMENT

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Ministerial Plenary

Ministerial Plenary

In a world of scarce resources – financial as well as natural – political attention and commitment are vital to ensure good decision-making and the necessary investments in the development and management of water resources. Bringing water resources issues to the top of the political agenda is fundamental to the long-term success of sustainable water resources management.

Through Ministerial Plenary, India Water Week (IWW) forged the political will to act. Ministers from various countries shared their vision and programs for water sector with focus on the theme of IWW 2024.

SESSION: MINISTERIAL PLENARY

DATE: 17.09.2024, TIME: 11:45 HRS TO 12:45 HRS

Chair : Shri C R Paatil, Hon'ble Minister of Jal Shakti.

Dignitaries on the dais were:

- Shri C R Paatil, Hon'ble Minister of Jal Shakti.
- Shri Raj Bhushan Choudhary, Minister of State for Jal Shakti.
- H.E. Mr. Morten Bodskov, Hon'ble Minister, Ministry of Industry, Business and Financial Affairs, Denmark.
- H.E. Collin David Croal, Hon'ble Minister of Housing and Water of the Co-Operative, Republic of Guyana.
- H.E. Mr. Mathew Andrea Kundu, Deputy Minister of Water, Tanzania.
- H.E. Mr. Vangelis Peter Haritatos, Hon'ble Deputy Minister, Ministry of Lands, Agriculture, Fisheries, Water and Rural Resettlement, Zimbabwe.
- Shri Nalamada Uttam Kumar Reddy, Hon'ble Minster, Irrigation & CAD, Government of Telangana.
- Shri Subhash Shriodkar, Hon'ble Minister, Water Resources, Goa.
- Shri Awangbow Newmai, Hon'ble Minister, Water Resources and Relief & Disaster Management Department, Government of Manipur.
- Shri Kedar Nath Kashyap, Hon'ble Minister, Water Resources Minister, Chhattisgarh.
- Shri Pijush Hazarika, Hon'ble Minister, Water Resources Department, Information & Public Relations, Parliamentary Affairs, Ports and Youth Welfare, Cultural Affairs, Power and Tourism, Government of Assam.

- Shri Coming One Ymbon, Hon'ble Minister, Department of Water Resources, Government of Meghalaya.
- Shri Suresh Singh Rawat, Hon’ble Minster, Department of Water Resources, Government of Rajasthan.
- Smt. Debashree Mukherjee, Secretary, DoWR, RD&GR, Ministry of Jal Shakti.

Key Speakers during the session were:

- Shri C R Paatil, Hon’ble Minister of Jal Shakti.
- H.E. Mr. Morten Bodskov, Hon'ble Minister, Ministry of Industry, Business and Financial Affairs, Denmark.
- H.E. Collin David Croal, Hon'ble Minister of Housing and Water of-the Co Operative, Republic of Guyana.
- H.E. Mr. Mathew Andrea Kundu, Deputy Minister of Water, Tanzania.
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- Shri Awangbow Newmai, Hon’ble Minister, Water Resources and Relief & Disaster Management Department, Government of Manipur.
- Shri Kedar Nath Kashyap, Hon’ble Minister, Water Resources Minister, Chhattisgarh.

Recommendations

Global Water Leaders' Plenary

Global Water Leaders' Plenary-I

Global Water Leaders' Plenary-II

Global Water Leaders' Plenary

(2 Sessions)

Water is one of the most vital resources, and the challenges facing the water sector are getting acute – from floods and droughts to lack of clean drinking water and sanitation and pollution of rivers and water bodies. Water sector requires collective approach with partnerships and cooperation across sectors, boundaries and institutions towards integrated water resource management to ensure water security for all.

Many countries and organizations across the world are working on various initiatives to address the water challenges. There are lessons to be learnt to accelerate action to face the water crisis and transform water sector management.

Water leaders from across the global organizations and institutions shared their experiences, insights and perspectives on the Theme of IWW-2024 **"Partnerships and Cooperation for inclusive Water Development and Management".**

SESSION: GLOBAL WATER LEADERS PLENARY - I (GWLP-I)

DATE: 17.09.2024, TIME: 14:00 HRS TO 15:15 HRS

Chairperson – Ms. Vini Mahajan, Secretary, Department of Drinking Water and Sanitation, Ministry of Jal Shakti.

Co–Chair – Ms. Mridula Ramesh, Founder Sundaram Climate Institute, Madurai

Key Speakers during the session were:

- Smt. Vini Mahajan, Secretary, Department of Drinking Water and Sanitation, Ministry of Jal Shakti.
- Smt. Mridula Ramesh, Founder, Sundaram Climate Institute, Madurai
- Dr. Rachell McDonnel, Deputy Director General, IWMI.
- Dr. Marco Arcieri, President, ICID.
- Mr. Loic Fauchon, President, World Water Council.
- Mr. Martin Raiser Regional Vice President, The World Bank.

Recommendations :

- Development of Irrigation has to be viewed as a response to the climate and food security challenges being posed. Food security should be achieved by modernizing techniques, innovation and increased irrigation efficiency.
- Irrigation potential planning and creation should be in tune with the land, environmental, socio-economic sustainability and water availability.
- Mapping of the irrigation development and balance potential assessment and inventorization can contribute to monitoring and achieving SDG 2 and SDG 6 at the same time.

- Rapid strides in modern technologies like sub -surface drip and Ultra Low Precision irrigation and adoption of expert systems in irrigation scheduling greatly contribute to reducing water waste and preservation of water.
- To ensure water security, India must continue to address inefficiencies in urban water systems, agricultural irrigation, and sanitation services, focusing on reliable service delivery and enhancing collaboration with the private sector and development partners to scale impactful solutions.
- Tanks to store rain water are good source of recharging the groundwater table in the vicinity of such tanks. Further, with the right infrastructure and marketing, tanks (lakes and reservoirs) can become potent job-creation engines as local tourism magnets.
- India needs to Invest in technologies like desalination, reverse osmosis, and large-scale wastewater recycling to improve water availability and quality. Embrace digital innovations to optimize water use and efficiency.
- There is an emerging need to encourage and involve the youth in water conservation efforts and innovative solutions. Foster their role as 'water warriors' to drive sustainable practices and inspire future generations to continue the fight for water security.
- Planning for increased water demand due to population growth by improving water efficiency and developing strategies for sustainable resource management. Utilize data-driven approaches to forecast and address future needs.
- Implement water resource management through decentralized, locally-driven approaches. Empower local authorities and river basins with direct access to financing to better address regional needs.
- Tackling Global and Local Water Challenges through partnerships and cooperation, update cooperation framework for systems change, devise a collective action for problem solving which should be deliberative and adaptive.

SESSION: GLOBAL WATER LEADERS PLENARY - II (GWLP-II)

DATE: 17.09.2024, TIME: 15:30 HRS TO 17:00 HRS

Chair – Shri K. Vohra, Chairman, Central Water Commission
Co–Chair – Shri Rakesh Kumar Verma, Additional Secretary, DoWR, RD&GR

Key Speakers during the session were:

- Shri K. Vohra, Chairman, CWC
- Shri Rakesh Kumar Verma, Additional Secretary, DoWR,RD&GR.
- Mr. Saroj Kumar Jha, Global Director, The World Bank.
- Dr. Kalanithi Vairavamoorthy, CEO, IWA.
- Ms. NOA Amsalen, Water Attachee, Israel.
- Ms. Aarti Mehra, Deputy Country Director, ADB India Resident Mission.
- Mr. Asit K Biswas, Professor, University of Glasgow, UK.
- Mr. Jasper Hannibalsen, Head of Ground Water Division, The Danish Environment Protection Agency.

Recommendations:

Mr. K. Vohra, Chairman, CWC

- Collaborative effort and partnership in water sector
- Water management in integrated way
- Proactive role of Central Water Commission in Water Resource Project development
- Water cooperation among states
- Effective dispute resolution mechanism
- Participatory approach in water management
- Bi-lateral cooperation of data sharing
- Vision 2047 – addressing climate change impacts and future challenges

Mr. Saroj Kumar Jha, Global Director, World Bank

- Focus on inclusive water management- base of social development
- Governments to give priority to water sector with substantial resource
- Enhanced role of Private partnership in water sector
- Global conversation on water issues

Dr. Kalanithy Vairavamoorthy, CEO, IWA

- We should start thinking about water globally
- Adaptation- supply chain resilience
- Designer water approach which focusses on water of different flavors
- From waste water to wealth approach
- Technology readiness

Ms. Noa Amsalen, Water Attachee, Israel

- Replication of India-Israel collaboration in water technology to other places
- Large scale re-use of water
- Metering of water for effective management and its equitable distribution
- Reduction of non-revenue water

Ms. Aarti Mehra, Deputy Country Director, ADB

- Stressed on India-ADB collaboration
- Strong investment in Climate action
- Private sector role in water management
- Regional cooperation in water sector
- Digital transformation in water sector
- Developing Resilient water systems

Prof. Asit K. Biswas, University of Glasgow, UK

- Indian water problems must be solved and looked into with Indian characteristics

Mr. Jesper Hannibalsen, Head of Ground Water Division, DEPA

- Role of Ground water in overall water management
- Government to government collaboration
- Utilizing ground water in sustainable water development
- Reduction in non-revenue water.

COUNTRY FORUM

Country Forum

(Four sessions)

Country Forum on the side-lines of IWW 2024 have sessions convened by country partners, showcased the opportunities in water sector in respective countries for cooperation and collaboration between Governments and Businesses. The sessions highlighted the countries best practices and sharing of experiences in water sector.

SESSION : COUNTRY SESSION BY DENMARK (CF1)

DATE: 17.09.2024, TIME: 17:30 HRS TO 19:00 HRS.

Recommendations :

1. **Mr Soren Kannik, Minister Counsellor & Head of Trade, Royal Danish Embassy, New Delhi**

   Strategic Partnership

   - The Speaker emphasized on water being one of the areas of fostering strong partnership between India and Denmark, while celebrating 75 years of Green Strategic Partnership.
   - The main focus was on demand side management and wastewater treatment.
   - The opportunity of large scale application offered in India was highlighted with an example of National Jal Jeevan Mission.

2. **Mr Chandra Bhushan Kumar, Addl. Secy. & MD, DoDW&S**
   Keynote Speech

   - Two flagship Schemes of GoI were highlighted viz. Namami Gange and Jal Jeevan Mission (JJM) and their achievements with integrated community participation and capacity building aspects.
   - He stressed on learning from each other and technology transfer as a step towards more fruitful collaboration.

3. **Mr Jesper Hannibalsen, Head of the Groundwater Division, Danish Environmental Protection Agency**
   - Innovative, scalable & sustainable water management solutions. Strategic Sector Collaboration on Water & Environment.
   - The case study of JJM towards providing safe and reliable drinking water especially in rural areas was very much appreciated.

4. **Lars Mattson, Representative Mayor's Aarhus Kommune**
   - He explained the Triple Helix Model on Public Private Partnerships and recommended to collaborate with knowledge institutions and private companies thus promoting Solutions rather than Products

5. Panel Discussion-1 (Tech-driven Wastewater Management: From Treatment to Resource Recovery)

Panellists:

1. Eline Suijlen, Water Industry Manager, Alfa Laval
2. Anubhav Jha, Regional Manager, Danfoss
3. Sanjeev Sirsi, Head Sales, WU- Municipal, Grundfos India
4. Vidyavati Basarkod, Managing Director, Rambøll
5. Nitin Bassi, Senior Programme Lead , CEEW
6. Rohit Kakkar, Deputy Advisor, Central Public Health and Environmental Engineering Organisation
7. Nalin Srivastava, Deputy Director General, National Mission for Clean Ganga

Outcome:

a. The session recognized wastewater as a robust resource, while focusing on sustainable, carbon-neutral, and energy-efficient technologies for treatment, with large-scale applications and special focus on sludge dewatering/recycling/management and pressurized sewage transport.

b. Comprehensive Framework needs to be designed for treated wastewater management at both Central and State levels to ensure efficient water governance.

c. Innovative applications of treated wastewater in areas such as power plants, construction industry, peri-urban agriculture, road cleaning and landscaping were recommended. The need to create demand for treated wastewater across various sectors was stressed upon to promote sustainable practices.

d. The challenges of treating large volumes of wastewater generated in urban centres were highlighted, with a focus on reusability and cost recovery. Sludge management was also identified as a key component in this effort.

6. Panel Discussion-2 (Beneath and Above the Surface: navigating strategies for sustainable surface and ground water management, protection and opportunities)

Panellists:

1. Choukri Karabach, Product line leader and Sales Manager Afinitas
2. Dr. Shresth Tayal, Head of Water Resource, DHI
3. Per Gissel, Head of Operations, Skytem Surveys Aps
4. Niels Esben Auken, CEO, TEMcompany ApS
5. Philip Grinder Pedersen, Chief advisor, Danish Environmental Protection Agency
6. Dr. Ranjan Ray, Scientist, CGWB
7. D.P Mathuria, Chief Engineer, CWC
8. Prof. Karsten Høgh Jensen, Copenhagen University
9. Ravi Solanki Chief Engineer, Department of Water Resources, Government of Rajasthan

Outcomes:

a. Discussions were focused on enhancing surface and groundwater resources, improving Decision Support Systems (DSS), promoting and involvement of and promoting research and educational collaboration. The need for advanced technologies for mapping, monitoring, and managing water resources as well as integrated hydrological modelling was highlighted.
b. Private Sector representatives stressed the importance of innovation, knowledge exchange and technology transfer to address - water related challenges effectively with more exposure visits for capacity building.
c. The forum emphasized the importance of utilizing large data repository for informed decision-making and recommended the establishment of open databases to support research and consultancy in the water sector.
d. Upgrading the flood forecasting systems and operational flood inundation forecasts were also stressed upon along with Extended Hydrological Prediction and creation of institutional mechanism/strengthening.

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SESSION : COUNTRY SESSION BY AUSTRALIA AND ISRAEL (CF2)

DATE: 18.09.2024, TIME: 10:00 HRS TO 11:45 HRS

Recommendations:

I Australia:

- Alluvium Group, based in Australia, specializes in providing advisory services to address the complex and interconnected challenges facing society and the environment. Their expertise lies in supporting both governments and businesses in solving issues related to the natural and built environments. They focus on sustainable solutions, working across water, land, biodiversity, rural and urban landscapes, aiming to make a positive impact on communities and ecosystems.
- Austrade group is associated with Basin planning In Krishna River and Narmada river basin for integrated reservoir operation.
- Austrade is also associated with Guwahati, Assam Silsako Beel River.
- SCADA based Autonomous canal automation solutions that are designed and developed with a lot of research with Melbourne University over a period of 25 years using cutting edge innovations such as solar power and marine grade components. The autonomous operations in the canal operations are state of the art and are future proof for India for the next 20 years with manufacturing, execution and support from India.
- Rubicon has been associated with the Vande Bharat train (India's high speed rail technology)
- Smec is a leading engineering and environmental Consultancy firm in India. Working since 1975, have completed 400+ projects. Projects working include Desalination plants, Dam Rehabilitation Improvement Programme, Design for tunnels and dams, Urban development, renewable energy and power line distribution, metro etc.

II Israel:

1. Irrigation is key to clever use of water example of drip irrigation irrigation, purification, leakage proofing, carbonization, reuse & recycling of existing water resources must be looked into.
2. Irrigation potential planning and creation should be in tune with the availability of land, environmental, socio-economic sustainability and water availability.
3. Water pricing, manuals, rules and regulation for conservation of water.
4. Rapid strides in modern technologies like sub surface drip and Ultra Low Precision irrigation and adoption of expert systems in irrigation scheduling greatly contributed in preservation of water and reducing quantum of waste water.
5. Micro-irrigation is a step towards smart digital farming. Importance of micro irrigation along with fertigation and resource use efficiency have been elaborated.
6. India needs to Invest in technologies like desalination, reverse osmosis, and large-scale wastewater recycling to improve water availability and quality. Embrace digital innovations like smart sensors, meters etc to optimize water use and efficiency.

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INDIA WATER WEEK - 2024
Partnerships and Cooperation for Inclusive Water Development and Management
17-20 SEPTEMBER 2024

SESSION : COUNTRY SESSION BY OTHER COUNTRIES (CF3)

(Indonesia, Cambodia, Morocco, Singapore, Guiana, Denmark and Zimbabwe)

DATE: 18.09.2024, TIME: 14:15 HRS TO 15:45 HRS

Recommendations:

1. Denmark's Delegate elaborated on use of 3D mapping of ground water and drone technology for managing the irrigation and other requirements in their country.
2. The presenterfurther elaborated on the regulatory framework covering food security and dam construction in their country for water resources management.
3. Indonesia also elaborated on river basin territory management, integrated water resources development, rehabilitation of existing dams, and construction of new dams and modernization of irrigation systems.
4. Cambodia's representative spoke about the need to collectively combat the water security challenges citing example of Mekong river. He focused on Variability of surface water and Ground Water, monitoring water supply, farmer user community, optimum water use, long term climate change, water availability issues, mitigating risk of flood and drought, dam safety, flood forecasting, twin challenge of climate change & population growth.
5. Speaker from Morocco stressed on the major constraint of 'Climate Change' and occurrences of consecutive droughts in their country. He elaborated on the need to strengthen Public Private Partnership through private sector engagement in water resources management. He also elaborated on various schemes/ programmes and policies such as National Water Policy, Emergency Programs, Reuse of Wastewater and strengthening of drinking water supplies to rural area etc are adopted by their government for mitigation of challenges faced by them.
6. Singapore elaborated their journey from starting from humble background to the present advanced stage of water management within a short span of time. Main constraints of their country facing are climate change, rising sea level, carbon emission. For carbon emission they are targeting zero carbon emission in future. For supply demand management they are adopting various instruments like pricing, public education etc.
7. Guiana's speaker deliberated on best practices in water governance must address climate change and competing demands. Recent information and communication technology (ICT) and Internet of Things (IoT) advancements enable real-time monitoring of water infrastructure, while smart water management technologies promote efficient and sustainable water use through innovative tools like sensors and data systems.
8. Zimbabwe's speaker deliberated on its actively pursuing to enhance various sectors, including borehole drilling, for which they have received 30 new rigs. They aim to improve water supply by acquiring pumps and accessories for over 300 stations managed by national Water Authority (ZINWA). Additionally, they seek irrigation technologies to modernize over 450 schemes and are focused on constructing dams and treatment plants. Lastly, they emphasize the importance of research and new technologies to modernize the economy. The Zimbabwean government is foreseeing partnerships with India in several key areas in water sector including borehole drilling and dam rehabilitation etc.












INDIA WATER WEEK - 2024


Session : 6th India-EU Water Forum on Water Cooperation (CF4)

DATE: September 18, 2024 || Time: 09.30 to 17:00 IST

Recommendations:

The 6th India-EU Water Forum has witnessed the presence of high-level participation from Ministry of Jal Shakti, its allied institutions, namely Central Water Commission (CWC), Central Ground Water Board (CGWB), National Mission for Clean Ganga (NMCG) and Brahmaputra Board (BB); European Union Delegation; Embassy of Germany, France, Slovakia, Finland, Denmark, The Netherlands, Hungary and Belgium.

More than 100 participants attended the Forum.

Background:

The India-EU Water Partnership (IEWP) is an outcome of the 'Joint Declaration on an India-EU Water Partnership (IEWP)' adopted by the EU and the Government of India during the 13th EU-India Summit in Brussels, in March 2016 and the Memorandum of Understanding on Water Cooperation between the EU and the Government of India, signed in October 2016.

The IEWP Action has been implemented in three phases. Phase I was implemented from 1 July 2017 to 31 October 2020 (40 months), and Phase II was implemented from 1 November 2020 to 30 November 2023 (37 months). The ongoing Phase III, *India-EU Water Initiative* (IEWI), commenced in March 2024 and will continue until February 2027 (36 months).

SESSION-1: INDIA-EU WATER FORUM PLENARY focussed on the Water Cooperation established between the Ministry of Jal Shakti and the European Union and its Member States.

The highlight of the Session is as follows:

Shri Raj Bhushan Choudhary, Hon'ble Minister of State, Jal Shakti:

The Hon'ble Minister of State, Jal Shakti, graced the occasion. He stated that the India-EU Water Partnership has contributed significantly to India's water sector by supporting the strategies devised by the Ministry of Jal Shakti towards holistic management of water resources in India.

He briefly touched upon the genesis of this India-EU Water Partnership (IEWP) which is an outcome of the 'Joint Declaration on India EU Water Partnership (IEWP)' adopted by the EU and the Government of India during the 13th EU-India Summit in Brussels, in March 2016 and the Memorandum of Understanding on Water Cooperation between the EU and the Government of India, signed in October 2016.

The IEWP Action has been implemented in three phases. Phase I was implemented from 1 July 2017 to 31 October 2020 (40 months), and Phase II was implemented from 1 November 2020 to 30 November 2023 (37 months). The ongoing Phase III, *India-EU Water Initiative* (IEWI), commenced in March 2024 and will continue until February 2027 (36 months).

He also expressed his satisfaction on the achievements so far over the years in different aspects of water resources.

Hervé DELPHIN, EU Ambassador to India:

He stated that The EU and Team Europe are glad to join the 8th India Water Week and are hosting the 6th EU-India Water Forum today. Eight years of collaboration have shown us that when we share expertise, we can bring innovative solutions and tackle even the most pressing water challenges. Team Europe is eager to further deepen its partnership with India under the existing water cooperation framework. Today's forum is a testimony to the growing ties. While we have developed a successful Partnership for solutions in India, we are also keen to work together with Africa to bring our respective expertise and develop innovative water management strategies and foster Regional Water Security.

Ms. Debashree Mukherjee, Secretary, DoWR,RD&GR, MoJS:

The Secretary expressed her happiness that the 6th India EU Water Forum could take place together with the 8th India Water Week 2024, which are having the same objectives. She mentioned that as Water is a State Subject, so EU Member States, Govt. of India and State Governments are collaborating in this unique way of partnership for working together towards solving the water related problems. She also stressed upon the climate change phenomenon and the disasters associated therewith while focusing the attention towards strategies like developing storages of ground water and surface water as well as strong protocol for enhancement of life and resilience of all the water assets/structures in India. Transforming irrigation with a service orientation as well as improving health of river and its ecosystem thus creating value for all was emphasized by the Secretary. She ended with the importance of Capacity Building for robust partnerships and holistic management of water resources.

Shri Kushvinder Vohra, Chairman, CWC:

The Chairman, CWC welcomed all the participants from various Indian Ministries, the EU Member States, and International Organizations and briefed about the journey of the India-EU Partnership with the milestones achieved since its inception in March 2016. It was stated that the partnership, formalized through a Memorandum of Understanding in October 2016, aims to enhance technological and management capabilities in water management through collaborative efforts.

The Key Phases of the Partnership was presented during his special address. The Phase I (2017-2020) focused on the foundational work, including Development of a River Basin Management Plan for the Tapi River, Guidance for environmental flows assessment and wastewater reuse, Completion of a Handbook for isotope data analysis, Conducted environmental flow assessments for key rivers. The Phase 2 (2020-2023) consolidated on earlier successes and introduced Water Allocation modelling, Flexible action plans centred on thematic pillars like River Basin Management & Wastewater Reuse and Emphasis on training and knowledge sharing among stakeholders. He further stated that the Phase 3 (2024 and beyond) will focus on continued efforts in existing thematic areas with the addition of Urban Hydrology to address water demands and flooding in urban settings and Climate Change Impact to study how climate variability affects water resources.

The Brahmaputra Basin will also be integrated into the initiative, focusing on sustainable water management in north-eastern India. He concluded that the India-EU Water Partnership is crucial for addressing global water security challenges, fostering mutual trust and collaboration. The upcoming phase aims for greater achievements in water management amidst evolving urban and climatic challenges.

All the Dignitaries on Dais have lauded the partnership's accomplishments and emphasized on collaborating towards Integrated Water Resources Management and a sustainable future. It was mentioned that there is emergent need to focus on issues like urban flooding, climate change and supporting Brahmaputra Board towards improved Governance at River Basin Level involving all the North Eastern States of India. All the dignitaries also emphasized on building capacities and knowledge exchange thus enabling effective decision making.

SESSION-2A: STRENGTHENING INDIA-EU WATER POLICY DIALOGUE AND ADVANCING TOWARDS TRILATERAL COOPERATION

The main points that were discussed and emphasized by the Panellists are as below:

1. **Mr. Thomas McClenaghan, Head of Section, Sustainable Modernization, EU Delegation:**
   The collaborative strategies are necessary to achieve the set objectives for Water Sector. The focus is on achievement of targets set for various water related Sustainable Development Goals (SDGs) and global commitments for conservation of water resources. It was also remarked that all the countries of the world are sharing the same challenges in Water Sector and therein lies the relevance of collaboration for mutual benefits.

2. **Mr. George Peters, nominated representative of the Embassy of the Kingdom of the Netherlands**:
   The panelist shared about the Indo-Dutch bilateral projects in Sundarbans (largest delta in the world) in West Bengal and the unique challenges posed. The emphasis is on the EU approaches, that can serve as a solution after adapting them to Indian context and circumstances. It was specifically highlighted on the need for delineating short term and long term targets.

3. **Ms. Rajni Dhiman, Head of Department, HEC Water Ramboll, nominated representative of Embassy of Denmark**:
   The importance of sharing experiences, adapting approaches, and scaling up solutions between Europe and India was highlighted. Emphasis was placed on the need for innovative solutions and collaborative approaches.

4. **Mr. Levente Kardos, Economic and Commercial Counsellor, Embassy of Hungary**:
   The partnership established between Hungary and India was shared, with a focus on groundwater resources management and educational exchange programs.

5. **Sh. RanbirSingh , Chairman, Brahmaputra Board, Ministry of Jal Shakti**:
   The importance of collaboration and knowledge exchange for the institutional development of the Brahmaputra Board as a River Basin Organization was stressed. The unique geographical and climatic conditions prevailing in the northeastern states of India were discussed, along with the incorporation of similar experiences from partnerships and collaborations (IEWP/IEWI) toward the development and management of water resources in the region.

Session-2B: Joint Group Discussion Advancing trilateral Cooperation between Africa, EU and India

The main points that were discussed and emphasized by the Panellists are as below:

1. **Mr. Franck Viault, Minister Counsellor, Head of Cooperation, EU Delegation**:
   It was mentioned that under the framework of the India-EU Water Partnership, a promising opportunity exists for Indian Water Authorities to share their extensive technical and managerial expertise in Water Resources Management with interested countries, specifically with the Lake Victoria Basin Commission (LVBC) and the Lake Tanganyika Authority (LTA). Both Indian and African institutions have expressed a strong desire to contribute their knowledge and experience to managing water resources. The potential for trilateral cooperation was emphasized as an opportunity for joint efforts to address common challenges, develop affordable solutions in identified areas of interest, and add value to existing practices.

2. **Sh. Anand Mohan, Joint Secretary, (RD & PP), DoWR, RD&GR, Ministry of Jal Shakti, Govt. of India**:
   Establishing and strengthening the existing cooperation with African countries is a priority for the Government of India. Various thematic areas were highlighted where India and African nations are working together on natural resource planning and management. The challenge of maintaining efficiency of output, along with the large scale of application, was acknowledged. It was indicated that the Government of India intends to support the proposed trilateral cooperation with LVBC and LTA for improved transboundary water resources management.

3. **Mr. S.S. Bakshi, Chief Engineer (EMO), CWC**:
   The expertise available with Indian Water Authorities, such as the Central Water Commission (CWC), in the fields of Water Resources Assessment, Planning, Development, and Management was highlighted. Emphasis was placed on the application of the latest space technologies in the water sector and the robust mechanisms for handling and managing large databases. It was suggested that the dissemination of knowledge is necessary to ensure that achievements occur at the ground level.

4. **Ms. Rumi Mukherjee, Scientist D, CGWB:**
   The importance of developing a pilot project with defined objectives and timelines was emphasized, outlining contributions from all partners and allowing for upscaling or standardization in later stages based on lessons learned during execution. The proposed trilateral project will also offer an opportunity to adopt or adapt established approaches in similar or different climatic and geographic terrains.

5. **Mr. Abhay Kumar, General Manager, Brahmaputra Board:**
   The need for advanced and state-of-the-art technical solutions to manage river basins was highlighted. Emphasis was placed on the development of a River Basin Level Master Plan through mutual learning experiences and technology transfer. The protection of Majuli Island on the Brahmaputra River, the largest riverine island in the world, was also discussed.

6. **Ms. Hilda Luoga, Projects Development Officer, LVBC:**
   It was highlighted that many East African countries are collaborating under the framework of Lake Victoria Basin Governance. The proposed trilateral project between India, Africa, and the EU is expected to bring opportunities for exchanging policies, frameworks, and technologies, involving a broad range of stakeholders.

7. **Mr. Simon Otoung, WRM, Officer, LVBC:**
   Collaboration was emphasized as a necessity rather than an option. All partners need to come together to achieve common goals and interests in the water sector, including both surface water and groundwater.

8. **Mr. Kwibisa Liywalii, Director of Monitoring and Evaluation of LTA**:
   The participants were informed about the unique biodiversity of Lake Tanganyika. There is significant interest in establishing trilateral cooperation with India and the EU in areas such as solid and liquid waste management, water quality monitoring, basin-level management planning, multisectoral partnerships, and capacity building.

SESSION-3: CHARTING THE FUTURE OF WATER RESOURCES MANAGEMENT: TOWARDS NEW HORIZONS (14:00 to 15:20)

Shri Kushvinder Vohra, Chairman, CWC, MoJS

The presentation titled "Climate Resilient Water Infrastructure" by Kushvinder Vohra, Chairman of the Central Water Commission, focused on the challenges climate change poses to India's water resources and the need for resilient infrastructure. Increasing variability in rainfall, melting glaciers, frequent floods, and cyclones were highlighted as factors affecting water availability and quality. Rising sea levels and salinity ingress were also noted as significant concerns. With water demand, especially in agriculture and food production, expected to rise by 2050, modernizing infrastructure such as dams, canals, and reservoirs is imperative. India's water storage capacity remains lower than that of many other nations, necessitating increased storage facilities and better resource management.

Groundwater management is crucial, as many of India's assessment units are over-exploited. Interventions such as artificial recharge, rainwater harvesting, and community-led groundwater management through the Atal Bhujal Yojana were stressed upon. Technology, including SCADA and IoT systems for monitoring and optimizing water distribution, along with remote sensing and GIS tools for flood forecasting and resource assessment, plays a critical role.

Community involvement through Water Users Associations, policy initiatives like the Dam Safety Act 2021, and inter-state cooperation for river basin management were underscored as essential for sustaining water resources. Wastewater treatment and reuse, particularly in agriculture, were emphasized under initiatives like Arth-Ganga, which aims to monetize and recycle treated wastewater and sludge for revenue generation and conversion into usable products. The National Framework on Safe Re-use of Treated Water (2022) has been adopted by MoJS, with MoUs signed with the Ministry of Power, Ministry of Railways, and Ministry of Agriculture for treated wastewater reuse.

Urban drainage issues, required measures, and advancements in R&D and capacity building were also discussed. Strategies like the Sponge City concept aim to mitigate urban flooding from unplanned development and intense rainfall. Challenges in natural water systems, such as encroachment and sedimentation, were highlighted, along with the need for regular water quality and quantity monitoring, and public display of results.

The presentation concluded by calling for an integrated approach that combines legal, institutional, financial, and technological measures to ensure sustainable and resilient water management in the face of climate change.

Shri. Rajeev Kumar Mital, Director General, NMCG, MoJS

The GIZ-supported cyclic approach for developing River Basin Management Plans, based on the EU Water Framework Directive, was discussed. A detailed framework for developing these plans has been jointly created with support from IEWP and GIZ. Institutional development aspects were also covered, focusing on the recently established RBM unit at NMCG.

The five pillars of the Namami Gange Project were outlined: Nirmal Ganga, which aims for an unpolluted river; Aviral Ganga, focused on maintaining the river's flow; Jan Ganga, which emphasizes people's participation in river rejuvenation; Gyan Ganga, which focuses on research and knowledge to guide interventions; and Arth Ganga, which connects people to the river through economic initiatives.

Dr. A. Asokan, Member (HQ), CGWB, MoJS

The groundwater scenario and management strategies in India were outlined, focusing on aquifers, groundwater levels, resources, and quality. Aquifers in India are categorized into hard rock and soft rock types, with the National Aquifer Mapping and Management Programme (NAQUIM) working to map aquifers and create management plans. Groundwater extraction data indicates that India's annual recharge is 449.08 billion cubic meters, with a 59.26% extraction rate, though over-exploitation remains a concern in some areas.

Geophysical surveys and exploratory drilling are key tools for mapping aquifer properties, with high resolution surveys, including heli-borne methods, used to collect data across large areas. Groundwater quality varies, with contamination from arsenic, fluoride, and salinity reported in certain regions.

Groundwater management through artificial recharge interventions, such as rainwater harvesting and check dams, was highlighted. Initiatives like Atal Bhujal Yojana and Jal Shakti Abhiyan focus on sustainable groundwater management, emphasizing community involvement, water conservation, and regulation of groundwater extraction. These efforts have led to improved water levels in some regions and a reduction in over-exploited areas.

SESSION-4: WATER NEXUS: EU-INDIA INNOVATIONS IN RESEARCH AND SOLUTIONS (16:00to 17:00)

The following 4 participants from the Horizon 2020 Water Cooperation Projects between the EU and India have presented an overview on the technical recommendations made by the projects:

1. **Mr. Makarand GHANGREKAR**, Professor, IIT Kharagpur, India, **Saraswati 2.0 project**
2. **Ms. Sanjukta PATRA**, Professor, IIT Guwahati, **SPRING**
3. **Dr Anshuman**, TERI, New Delhi, **Pavitra Ganga**
4. **Dr Anurag Mudgal**, PDE University, Gandhinagar, **INDIA-H2O**

The above-mentioned projects recommended the technologies for wastewater treatment, solutions for drinking water. The technologies presented were focussed on drinking water purification, wastewater treatment and real-time monitoring & control systems. All technologies are cost effective and have demonstrated energy efficiency. The IEWI aims to support the technical interventions recommended by the Horizon 2020 Projects to the Indian partners and EU businesses for a possible market uptake.

Mr. John Thomas, presented about the concept of Solution Forum to be established in Phase 3 of India EU Water Initiative. The Solution Forum will serve as a platform to facilitate the implementation of measures recommended in the Tapi River Basin Management Plan developed under the framework of India EU Water Partnership.

The forum ended with a Vote of Thanks from Mr. Laurent le Danois, Team Leader, Cooperation section, Delegation of the European of the European Union to India and a group photograph at the end.

Water Leaders' Forum

Water Leaders' Forum
(9 Sessions)

Water Leaders' Forum conducted covering important water themes and sectors. National/ International experts from Industry, Public Sector, Policy Makers, Research and Academia, Multilateral development institutions, Non-Government sector etc. deliberated on various aspects of water management. There were key note speakers, thematic presentations and panel discussions held during the sessions.

SESSION: INTEGRATED SURFACE & GROUND WATER STORAGE MANAGEMENT (WLF1)

DATE: SEPTEMBER 18, 2024 TIME: 11:45 TO 13:15 HRS.

Integrated Surface and Groundwater management is critical for India's future water security. Integrated management can lead to multiple benefits across scales including increasing water productivity, water security, increase in crop intensity, and environmental benefits. During the session approaches and methods to promoting and operationalizing integrated management to reap the opportunities and benefits were discussed.

This includes sustainable strategies, including recharge augmentation, storage mapping and governance measures, to ensure water security amidst rising demand and climate change. The primary goal of the session was to contribute to the development of a national plan for Integrated Surface and Groundwater Management in India and to focus on:

- Assessing the current state of integrated Surface and Groundwater Management in India, identifying key stakeholders involved, and discussing successful examples of integrated surface and groundwater management both within the country and internationally, along with lessons learned.
- Exploring the barriers to widespread adoption of integrated surface and groundwater management, including socio-political challenges, lack of comprehensive understanding, and the fragmented responsibilities between agencies managing surface and groundwater.
- Identifying the institutional, technical, and managerial requirements necessary for the effective implementation of integrated surface and groundwater management.

Moderator : Dr. Alok Sikka, Country Representative, IWMI
Key Note Speaker: Dr. Jonathan Lautze, Research Group Leader-Integrated Basin and Aquifer Management, IWMI

Panelist

1. **Dr. M K Goel,** Director, NIH Roorkee
2. **AK Kharya,** Chief Engineer, CWC
3. **Dipankar Saha,** Ex Member-CGWB
4. **Dr. DK Singh,** Principal Scientist, Water Technology Centre, ICAR
5. **Dr. Veena Srinivasan,** Executive Director, WELL Labs.

Recommendations:

- The major water user sector in India, i.e. agriculture and its allied needs to be emphasized and the panel expressed that there is an urgent need for its regulations and that can be achieved through proper modelling of water resources.

- The scientific scope and opportunities of linking surface and groundwater and their interaction were highlighted. Solutions to minimize groundwater overexploitation and scope of augmentation of Groundwater needs to be adopted by all the agencies. State wise discrepancy of the abstraction and recharge rate needs to address including the water quality.
- The divided responsibility of different stakeholders of the water must be assigned and followed. Inter sectoral implications must be studied in detail before forming any policy related to water.
- Infrastructural interventions and use of AI and IoT (automation SCADA system) must be promoted and seen as an opportunity to enhance water use efficiency. The monitoring system in the canal command needs to modernize. The On-Farm Water Management (OFWM) practices must be adopted.
- Adoption of best global practices and used cases must be followed to achieve better water productivity and land productivity. This can be achieved through adaptation of various activities such as modern precise irrigation techniques, crop-diversification, drought -resistant varieties, checks on the conveyance efficiencies, adaptation of IoT and sensor-based automation in command, etc.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Integrated Management of Surface and Groundwater – Conjunctive Water Management	**Shri Jonathan Lautze** Research Group Leader – Integrated Management of Basins and Aquifers, IWMI
2.	Session on Integrated Surface and Groundwater Management	**Dr. Matthew McCartney**, Research Group Leader- Sustainable Water Infrastructure and Ecosystems, IWMI

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SESSION : DEMAND MANAGEMENT AND WATER USE EFFICIENCY (WLF 2)

DATE: SEPTEMBER 18, 2024 TIME: 16:00 TO 17:30 HRS.

The experience suggests that meeting the challenge of water scarcity requires both a supply management strategy, coupled with a vigorous demand management involving comprehensive reforms and actions to optimize the use of existing supplies. Demand Management and Water Use Efficiency (DM&WUE) requires a holistic approach that recognizes the complexity of the inter-relationships among all the factors affecting water demand. It calls for the creation of an enabling environment based on an adequate set of mutually supportive policies and a comprehensive legal framework with a coherent set of incentives and regulatory measures to support these policies.

However, policies and regulations, though necessary, are not sufficient. Putting DM&WUE into practice also means strengthening and/or creating institutions and mechanisms that can transcend the traditional boundaries between sectors and involve effectively a variety of users and other stakeholders. DM&WUE requires recognition of the economic value of water in different uses along with the acceptance of the notion of opportunity cost and attention to cost recovery, though with concern for affordability and securing the human right for access to water for everybody and particularly for the poor. The experience in managing water scarcity through DM&WUE and pathways to effectively manage the demand and achieve greater water use efficiency were discussed during the session.

Chair: Shri Syamal Sarkar, Distinguished Fellow and Director, Water Resources Division, TERI

Co-Chair: Dr. Alok Sikka, Country Representative, IWMI

Presenters

1. **Dr S K Sarkar,** IAS, Distinguished Fellow, TERI
2. **Dr Alok Sikka,** Country Representative, IWMI
3. **Sanjay Marwaha,** Member, Haryana Water Resources Authority, Former Member, CGWB
4. **Dr. M.K. Sinha,** Chairman, Godavari River Management Board
5. **Gurmit Singh Arora**, National President, Indian Plumbing Association
6. **Neeraj Arora,** Assistant Secretary General, ASSOCHAM, New Delhi

Recommendations:

1. States may promote integrated water resource action plan on annually/biannually basis which will ultimately reduce water gap.
2. Regular monitoring through the dash board to track water availability may be introduced.
3. Water sector related Department wise water saving targets may be adopted by the states.
4. Identifying the gaps between present practices and best practices with targeted WUE across all sectors which ensure water saving.
5. There is urgent need to promote efficient water use techniques in all sectors.
6. Benchmarking studies and baseline studies needs to be carried out for addressing better demand side water management.
7. Pressurized pipe irrigation system may be adopted for enhancing water use efficiency.
8. Smart irrigation system may be adopted for enhancing water use efficiency.
9. WPDSS (Water productivity decision support system) tool may be adopted for enhancing WUE.

10. There is need to adopt online irrigation benchmark system.
11. Institutional, Governance, Policy interventions for improving WUE may be adopted.
12. "Incentivization is better than subsidization" for improving WUE in all sectors.
13. Water may be treated as an economic resource.
14. Water and waste circularity needs to be addressed to achieve net zero goal by 2070. (PM commitment).
15. Mandate the low flow fixtures for improving WUE in domestic water supply sector etc.
16. Certification programme for water auditors in all sectors may be introduced by Government for enhancing water use efficiency.
17. BWUE has been setup by MoJS and now there is urgent need to provide legal status to BWUE as a National Bureau of Water Use Efficiency for achieving goal of increasing Water Use Efficiency by 20% in all sectors.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Demand Management and Water Use Efficiency: Opening remarks	**Dr S K Sarkar**, IAS (R), Distinguished Fellow, TERI
2.	Demand Management and Water Use Efficiency: Improving Irrigation	**Dr. Alok Sikka,** Country Representative, IWWI
3.	Managing Water Demands for Ensuring Sustainability	**Shri Sanjay Marwaha,** Member, Haryana Water Resources Authority Former Member, CGWB
4.	Demand Management and Water Use Efficiency	**Dr. M.K. Sinha**, Chairman, Godavari River Management Board
5.	Demand Management and Water Use Efficiency	**Shri Gurmit Singh Arora**, National President, Indian Plumbing Association
6.	Achieving Water Use Efficiency Methods and Road Map for Industry and Domestic Sector	**Shri Neeraj Arora**, Assistant Secretary General, ASSOCHAM, New Delhi

SESSION : PARTNERSHIP FOR ACCELERATING INNOVATION IN WATER SECTOR (WLF3)

DATE: September 19, 2024, TIME: 09:30 – 11:00 Hours

Business-as-usual approaches and traditional technological choices are insufficient to address the current water crises and meet the need of water security. The water sector has historically been conservative, risk averse, and slow to adopt and disseminate new technologies. It remains underfunded and water service providers are frequently resource-limited, lacking sufficiently skilled staff and financing to invest in researching, testing, and deploying new technologies.

Data and information driven by artificial intelligence, machine learning are transforming hold immense potential for improving decision making in water sector and providing more sustainable management practices.

The need to forge new partnerships and collaborations in water sector is paramount. By making the water sector a hub for innovation and new technologies, we can ensure a more sustainable future, require new connections, integrations and partnerships amongst Government, Industry, Research and Academia, Venture Capital and Innovation Ecosystem.

Opportunities for forging new partnerships and collaboration to promote innovation and new technologies in the water sector were discussed during the session.

Moderator : Mr. Saroj Jha, Water Global Director, The World Bank

Panelists

1. **Kaushal Kumar Neeraj,** Deputy Director, Department of Horticulture, Govt. of Uttar Pradesh & Nodal Officer of the Uttar Pradesh Micro Irrigation Platform.
2. **Onkar Pandey,** Director, Program, Social Alpha.
3. **Vinod Singh,** Vice President, Singapore Water Association.
4. **Ms. Rashmi Pimpale,** CEO, Research and Innovation Circle of Hyderabad (RICH).
5. **Ms. Shipra Misra,** Managing Director and CEO, DRIIV, The Umbrella Body for the Science and Technology Cluster.
6. **Jatin Singh,** Founder & Managing Director, Skymet Weather Services.
7. **Ms. Amal Talbi,** Global Lead for Water in Agriculture, The World Bank

Recommendations:

1. India has done good work with regard to improving the water sector over the years. However, there is still a long way to go and several areas that can be improved using a multi-stakeholder approach. The need to create a collaborative ecosystem for innovations in water was highlighted particularly to also look at tech as a demand driven service rather than only focusing on supply side. Reforms need to be made at all levels starting from the government who needs to strengthen last mile delivery service and the private sector who can help bridge the gap between innovators and venture capital to support these

2. The water sector needs to be organized in a systematic way to be able to identify the right sets of innovations and to be able to deploy these at a ground level. Private sector with support from the MoJS can help leverage capital, expertise and innovation whereas the government can provide support required to scale opportunities with adequate policy level support
3. Funding is a key issue in sustainability of start ups across India. There is no shortage of innovations but most entrepreneurs lack adequate funding to survive beyond the pilot stage. There is a need for government to step up and support the startup ecosystem, promote innovations and initiate policy direction.
4. Building capacities of key stakeholders through trainings and knowledge sharing platforms will be critical in enabling people to embrace technology and use it for larger impact in the water sector. Cross learning and leveraging intelligence available with academia and research institutions will be key in transforming the water sector to make it more tech savvy and contemporary
5. As next steps it may be a good idea to think about commitments required from major stakeholders including the GoI, World Bank and others to come up with a concerted plan on the way forward. A water innovation/hub housed under the Ministry and supported by key partners could be designed to promote innovation, entrepreneurship and sustainable solutions in India's Water Sector.

The Presentation during the session:

Sl. No.	Topic of Presentation	Presenters
1.	"Disrupting" Water An emerging age of Innovation	**Smt. Amal Talbi** Global Lead for Water in Agriculture The World Bank

SESSION : INTEGRATED FLOOD MANAGEMENT (WLF4)

DATE: SEPTEMBER 19, 2024 TIME: 09:30 TO 11:00 HRS.

Integrated Flood Management (IFM) integrates land and water resources development in a river basin, within the context of Integrated Water Resources Management, with a view to maximizing the efficient use of floodplains and to minimizing loss of life and property.

Integrated Flood Management, like Integrated Water Resources Management, should encourage the participation of users, planners and policymakers at all levels. The approach should be open, transparent, inclusive and communicative; should require the decentralization of decision-making; and should include public consultation and the involvement of stakeholders in planning and implementation.

The management of floods as problems in isolation almost necessarily results in a piecemeal, localized approach. Integrated Flood Management calls for a paradigm shift from the traditional fragmented approach, and encourages the efficient use of the resources of the river basin as a whole, employing strategies to maintain or augment the productivity of floodplains, while at the same time providing protective measures against the losses due to flooding.

Moderator : Shri A. S. Goel, Member (RM), CWC

Keynote Speaker : Shri Sharad Chandra, Commissioner (FM), DoWR,RD&GR

Panelist

1. **Safi Ahsan Rizvi,** Advisor (Mitigation), NDMA
2. **Dr. Pratap Singh,** Real-time Flood Forecasting Models in India (RMSI)
3. **D.P. Mathuria,** CE (P&DO), CWC
4. **Joop Stoutjesdijk,** Lead Water Specialist, World Bank
5. **N.N. Rai**, Chief Engineer, CWC

Recommendations:

1. Flood hazard mapping should be conducted at the municipal level to enhance the effectiveness of flood management operations across the country. Additionally, bio-engineering measures should be implemented at the basin scale to support flood management and mitigate soil erosion.
2. Flood management tools (both structural and non-structural) should be applied in an integrated approach for comprehensive flood control and risk reduction. Hydrodynamic simulations of flood events should focus on adopting dynamic strategies to address the evolving nature of floods.
3. Flood Forecasting and Early Warning System models should be developed for each river basin, incorporating cyclone-induced floods, and utilizing a fully automated web-based system. Flood inundation extents for specific events should be compiled (utilizing drone and remote sensing technologies) to validate flood inundation models.
4. High-resolution digital terrain models are necessary for effective flood alert dissemination and to develop an emergency action plan that mitigates flood risks in a timely manner.

5. The Central Water Commission (CWC) should prioritize data sharing related to floodplain areas to facilitate high quality research and development in the country.
6. A robust Early Warning System and comprehensive protocol should be established for Glacial Lake Outburst Flood (GLOF) incidents, ensuring the involvement of all stakeholders and monitoring of potentially hazardous glacial lakes.
7. Water volume reduction in moraine-dammed glacial lakes, through siphoning or the construction of drainage channels, should be considered wherever feasible. Furthermore, Adequate spillway capacity, incorporating GLOF scenarios along with rainfall-induced floods, should be ensured by using fast acting hydraulic gates of appropriate size and enabling remote gate operation where necessary.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Integrated Flood Management: Context Setting	**Shri Sharad Chandra,** Commissioner (FM), DoWR,RD&GR
2.	Real-Time Flood Forecasting Models in India	**Dr Pratap Singh,** Vice President, RMSI Pvt. Ltd.
3.	South Lhonak Galcial Lake Outburst Flood (GLOF)	**Shri N.N. Rai,** Chief Engineer, Central Water Commission
4.	Flood Plain Zoining	**D. P. Mathuria** Chief Engineer, Central Water Commission

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SESSION: SUSTAINABLE WATER MANAGEMENT FOR INDUSTRY AND BUSINESSES (WLF5)

DATE: SEPTEMBER 19, 2024 TIME: 11:15 TO 12:45 HRS.

Industrial water and wastewater is a by-product of industrial or commercial activities. Whether it's the food we eat or the products we consume, water is required for nearly every step of production across a multitude of different industries. The resulting wastewater must be carefully managed. Industrial water use includes water used for such purposes as fabricating, processing, washing, diluting, cooling, or transporting a product; incorporating water into a product; or for sanitation needs within the manufacturing facility.

Improved water management and reliable access to water is essential for business development and reduced investment risk. Industrial areas that use water unsustainably are likely to direct more resources to ensure adequate access to water or are likely to suffer from intermittent water supply and/or poor water quality.

Session reflected on sustainable strategies for water management to enable industrial and economic growth.

Moderator : Dr. Kapil Kumar Narula, CEO & Executive Director, CII-Triveni Water Institute

Panelist

1. **Siddharth Bapna,** Co- Founder & Director, Blueverse India Pvt. Ltd.
2. **Pawan Agarwal,** Managing Director, Naini Papers Ltd.
3. **Dr Amit Chakraborty,** Chief Environment, Tata Steel Ltd.
4. **Navdeep Singh Mehram,** Head-Sustainability, DIAGEO India.
5. **Dr Rao Ivaturi,** Head-Corporate (Environment & Climate Change), Tata Power Ltd.
6. **Sourav Daspatnaik,** Managing Director, Swach Environment Pvt. Ltd.
7. **Maneesh Kumar,** President & Business Head CEO-South Asia. Jindal Saw Ltd.

Recommendations:

- Water consumption and economic growth needs to be decoupled with improvement in water use efficiency
- Water neutrality is the need of the hour for Indian industries
- To fix the ambitious goal to achieve in respect of water usages by the industries in a limited time line
- Water reform and water regulatory framework is must for participation of private sectors in water sector in a big way
- Community participation is must for success if PPPs model
- Consultation with manufacturers, suppliers etc may be done before launching any scheme considering the existing constraints in the system

SESSON : PARTNERSHIPS FOR CLIMATE ACTION IN THE WATER SECTOR (WLF6)

DATE: SEPTEMBER 19, 2024 TIME: 11:15 TO 12:45 HRS

Context: Water and climate change are inextricably linked. Climate change affects the world's water complex ways. From unpredictable rainfall patterns to shrinking ice sheets, rising sea levels, floods and droughts-most impacts of climate change come down to water.

Climate action refers to the efforts necessary to address climate change, including both adaptation and mitigation strategies. Climate adaptation refers to actions taken to help communities and ecosystem adapt to the adverse impacts of climate change that are already experienced or are expected to occur the near future. Climate mitigation refers to action taken to reduce or prevent the emission of greenhouse gasses (GHG) that are root causes of climate change.

Early warning systems for floods, droughts and other water related hazards can significantly reduce disaster risk. Water supply and sanitation systems needs to be designed to withstand climate change Climate-smart agriculture using drip irrigation and other means of using water more efficiently can help reduce demand on freshwater supplies.

Dam safety is one of the vulnerable issue in changing climate scenario and needs to be strengthened for climate resilient infrastructure.

During the Session various aspects related to climate action including role of nature base solutions in mitigating impacts of water related climate extremes, model on government and nor government partnerships for effective climate action, role of innovative technologies in climate mitigation and community engagement for building climate resilience were discussed.

Chair: Shri Thiru Tenkasi S Jawahar, Additional Chief Secretary & Project Director, Govt. of Tamil Nadu &

Ms. Anu Garg, ACS, Water Resources Department, Govt. of Odisha

Panelist

1. **Tenkasi S Jawahar**, IAS, Additional Chief Secretary & Project Director, TNIAM Project, Water Resources Department, Government of Tamil Nadu.
2. **Smt. Anu Garg,** IAS, Additional Chief Secretary, DoWR, Government of Odisha.
3. **Anil Jain,** Chairman, National Dam Safety Authority
4. **Vivek P. Kapadia,** Former Secretary, Government of Gujarat
5. **Ashok Kharya**, Chief Engineer, Central Water Commission
6. **Dr Arunabha Ghosh**, Founder-CEO, CEEW

Recommendations:

1. There is a need to strengthen the public community partnership programs such as WUAs to manage the water supply and demands at the local levels, and such local management should be promoted.
2. India has more than 6000 large dams. In the light of changing climate, dam safety must be periodically reviewed against their hydrological, hydraulic, and structural designs to ensure the safety of the community at the downstream and regulated water availability.
3. The panel also emphasizes the need for both structural, -non structural, and functional adaptations to existing dams to withstand climate change impacts.
4. There is an urgent need for the adaptation of more efficient confidence-building measures between union and state governments for sharing data, information, policy, and project related planning.

5. It is also recommended to enhance the water use efficiency (at least 20%) by adapting various majors such as efficient irrigation techniques, drought resistance crop varieties, the lining of earthen canals, etc.
6. Water is a social, institutional subject; there should be the involvement of all the stakeholders when it comes to hierarchical decision making. The network modeling can be adapted to achieve this.
7. Breaking the silos in the water sector in the context of climate change is essential, and it can be achieved through empowering both horizontal and vertical governance that can start taking on this challenge seriously and convert the competition to cooperation and collaboration among the various stakeholders.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Partnerships for Climate Action in the Water Sector Practices from the World Bank aided Tamil Nadu Irrigated Agriculture Modernization Project	**Shri Tenkasi S Jawahar, IAS,** Additional Chief Secretary & Project Director, TNIAM Project, Water Resources Department, Government of Tamil Nadu
2.	Partnership On Climate Action In Water Sector : Initiatives Of Odisha	**Smt. Anu Garg, IAS,** Additional Chief Secretary, Department of Water Resources, Government of Odisha
3.	Climate Action in Dam Safety	**Shri Anil Jain,** Chairman, National Dam Safety Authority
4.	Partnerships for Climate Action in Water Sector	**Shri Vivek P. Kapadia,** Former Secretary, Government of Gujarat
5.	Partnerships for Climate Action in Water Sector	**Shri Ashok Kharya** Chief Engineer, Central Water Commission
6.	Partnerships for Climate Action in the Water Sector	**Dr Arunabha Ghosh** Founder-CEO, CEEW
7.	Integrated watershed Management-Scientific Planning, monitoring and Convergence	**Smt. Sushila Yadav,** Joint Director(Engg), WDSC, Government of Rajasthan

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SESSION : PARTNERSHIP AND CO-OPERATION FOR INTEGRATED WATER RESOURCES MANAGEMENT (WLF7)

DATE: SEPTEMBER 19, 2024 TIME: 1330 TO 15:00 HRS.

Water sector has traditionally followed a silo approach which neglected partnerships and co-operation across sectoral and institutional boundaries. Integrated Water Resource Management has been widely accepted as framework for sustainable water management but its implementation has been tardy. The approach and principles of IWRM are relevant for water management at all levels (e.g., basin, sub-basin, state, district, municipal, coastal area etc.).

The importance of IWRM for the SDG agenda can be seen in Target 6.5, which calls for implementation by 2030 of integrated water resources management at all levels. Apart from SDG 6, integrated water resources management is crucial for many other goals as well.

Water leaders shared their insights on forging partnerships and cooperation at various levels of policy-making, planning and implementation in an integrated manner across sectoral, geographical and institutional boundaries. The speakers shared the successful cases and how these partnerships have delivered more optimized and sustainable solutions for water sector.

Moderator : Mr. AK Kharya, Chief Engineer, BPMO, CWC

Co-Moderator : Mr. Shawahiq Siddiqui, Governance Expert, Indian Environment Law Organization

Keynote Speaker : Mr. Alan Atkission, GWP Executive Secretary and CEO

Panelist

1. **A.B. Pandya,** Secretary General, ICID
2. **Dr. Veena Khanduri,** Executive Secretary-cum-Country Coordinator, India Water Partnership.
3. **Dr. B R K Pillai,** Prof. of Practice, Indian Institute of Technology (IIT) Roorkee.
4. **Dr. P S Rao,** Director (Technical), Advanced Centre for Integrated Water Resources Management
5. **Dr. P. Shakil Ahammed,** IAS, Additional Chief Secretary, Government of Meghalaya
6. **Dr. Ritesh Kumar,** Director, Wetlands International South Asia.

Recommendations:

1. Addressing global water challenges requires a coordinated and adaptive strategy within an international framework to ensure the long term sustainability of water resources, in line with Integrated Water Resources Management (IWRM).
2. Initiatives such as community-driven interventions, carbon offset mechanisms, ecosystem service compensation, and capacity-building programs should be promoted from local to regional levels to strengthen Integrated Water Resources Management (IWRM).
3. Priority should be given to research on wetland structures and their influence on local hydrological regimes, with a focus on enhancing biodiversity, maintaining ecological balance, and promoting environmental sustainability.
4. Water planning should be done considering the women at the centre so that policies can address the practical challenges they face in accessing clean and reliable water, which reduces their burden and improves the overall efficiency of water use. Furthermore, Women's involvement in decision-making about water governance can also lead to more sustainable and effective outcomes, as they bring different perspectives and solutions based on their experiences.

5. The government should consider implementing a "Blue Credit" system, similar to the carbon credit model, to incentivize the conservation and sustainable management of the nation's water resources.
6. By establishing a market driven framework, such an initiative could promote responsible water usage, reward stakeholders who invest in-water saving technologies, and enhance efforts to preserve this critical natural resource. A Blue Credit system would not only address water scarcity but also align with long-term environmental sustainability goals, supporting equitable access to clean water for future generations.

The Presentation during the session:

Sl. No.	Topic of Presentation	Presenter
1.	Karnataka IWRM - Water Partnerships & Cooperation	**Dr P Somasekhar Rao** Director (Technical), ACIWRM, Water Resources Department, Government of Karnataka

SESSION : PUBLIC PRIVATE PARTNERSHIPS IN WATER (WLF8)

DATE: SEPTEMBER 19, 2024 TIME: 13:45 TO 15:00 HRS.

In countries across the world, the water supply infrastructure is mostly built using government or public funding. In most developing countries, including India, private sector participation has been limited in both water infrastructure development, its operation and maintenance and service delivery.

Private sector participation has the potential to bring more investment, but critically, better technology and management capabilities to drive innovation and efficiency, thereby building water security while enhancing customer satisfaction.

During the Session the challenges facing water sector, strategies and success stories of private sector participation in various water sub sectors from bulk water supply to irrigation to urban and rural drinking water were focussed.

Moderator : Dr. Sumila Gulyani, The World Bank
Keynote Speaker : Mr. Baldeo Purushartha, JS, DEA Infra Divison
Mr. Auguste Kouame, Country Director, The World Bank

Panelist

1. **Dana Kishore,** Principal secretary, Municipal Administration and Urban Development Department, Telengana.
2. **Vivek Kapadia**, Former Secretary to Government of Gujarat.
3. **Rajiv Kumar Mittal**, Director General, National Mission for Clean Ganga.
4. **Conrad Fernandez,** GM–Operations, Performance & Digital Solution in SUEZ–BA India.
5. **Anil Jain,** Managing Director of Jain Irrigation Systems Limited, Jain irrigation, Jalgaon.

Recommendations:

India's needs are too massive for the public sector to meet the demand, so private sector will have to come in. Despite significant increase in access to tap water and irrigation, challenges remain in improving service quality and addressing broader water security.

Key to private sector participation is balancing the risks between public and private sectors Careful Contract Design is crucial. Contracts need to be meticulously designed to minimize risks, with provisions such as land pre-insurance and advance payments ensuring smoother implementation. Pricing is a public decision and subject to political choices, and in the Indian context, the public sector needs to bear financing risk for PPPs to work, using contractual models like hybrid-annuity (HAM).

Examples:

Urban water supply: Private sector has been able to achieve significant improvements in billing, collection and loss reduction in urban water supply systems e.g. in Delhi through 12-year contract issued by Delhi Jal Board. Even where water is free in Kolkata, city awarded a PPP to improve operating efficiency and reduce loss.

Wastewater: NMCG HAM model has been successful in improving operating efficiency and linking contractual payments with performance. Public sector has taken financial risk but distributed operating risk to the private sector through 15 year contracts that incorporate: indexation, government making payments, escrow mechanisms, and government availing the land to private sector.

Irrigation: Huge potential for private sector to add value through innovation focusing on water savings and increasing yields, which will multiply farmer income. Government needs to intervene and take some payment risk, as there is no incentive to save water as it is mostly free. Yet in era of water scarcity, same volume of water can irrigate 2 or 3 times current levels.

Improving accountability for irrigation: For successful private engagement, there must be an improvement in accounting of water volumes and flows – there cannot be accountability without basic metering and accounting.

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SESSION : Circularity in Wastewater Management (WLF-9)

DATE: SEPTEMBER 19, 2024 TIME: 15:30 TO 17:00 HRS.

By 2030, the world will generate about 470 billion cubic metres (BCM) of municipal wastewater, 44 per cent of which will be from Asia alone (UNEP 2023). The estimate for domestic wastewater (or used water) generation from urban areas in India is about 32 BCM by 2030 (CEEW 2023). Also, various assessments suggest that half of the domestic used water enters the environment without adequate treatment (UN-Habitat and WHO 2021).

Adopting a circular economy approach to wastewater management is globally recognised as a potential solution for reducing stress on freshwater resources and improving the water quality of natural water.

This involves strengthening wastewater treatment infrastructure, maximising the reuse of treated wastewater especially for non-potable purposes, and minimising the quantum of untreated wastewater.

India is taking comprehensive steps in this direction through national missions such as the National Mission for Clean Ganga (NMCG) and AMRUT 2.0. Further, the Global River Cities Alliance, announced by India at COP28, has commitments from about eleven other countries in knowledge sharing and building capacities for strengthening urban wastewater treatment systems and enabling reuse.

During the session, valuable insights on the following aspects, amongst others were generated:

- Governance models for strengthening wastewater management and reuse
- Sustainable financing options for implementing treated wastewater reuse projects
- Technological advancements for optimising treatment and energy efficiency
- Use of data and information for effective monitoring and evaluation
- Institutional capacity-building and behavioural change experiments leading to public acceptance of treated wastewater

Keynote Speaker/Moderator: Mr. Nitin Bassi, Senior Program Leader, CEEW

Panelist

1. **Nalin Srivastava,** Deputy Director General, National Mission for Clean Ganga.
2. **Dr. Antti Herlevi,** Trade Counselor Water, Forest and Circular Economy Embassy of Finland in India.
3. **Victor Shinde,** Head of the Climate Centre for Cities, National Institute of Arban Affairs (NIUA).
4. **Dr. Nipur Bahadur,** Associate Director & Senior Fellow, NMCG-TERI.
5. **Lars Mattson,** Business Coordination Lead, Mayor's Department, City of Aarhus, Denmark.

Recommendations:

- Need for state governments to adopt reuse policies aligned with the national framework for the reuse of treated wastewater (TWW).
- The role of technology in improving water quality from STPs and the necessity for horizontal collaboration, i.e., at the ministry level, and vertical collaboration, i.e., at the federal, state, and ULB levels.
- Carefully consider financing aspects of TWW reuse plans to ensure that consumers are not burdened with unnecessary costs.

- Need for exploring benefits of modern technology in wastewater treatment, such as recovering nutrients and saving electricity, describing it as a "money-making machine" for communities, promoted lake rejuvenation, providing an example of the use of microscale STPs and Finnish oxidation technology combined with Indian enzymes to clean water bodies and recharge groundwater.
- Need for developing, commercializing, and scaling up technologies, like TADOX, that are energy and water-efficient.
- Stakeholder engagement, e.g., with chief engineers of STPs, to ensure that technology is implemented effectively.
- Need for the shift to larger, modular STPs to gain better economies of scale and environmental efficiency and the importance of separating rainwater from wastewater to prevent contamination during floods and ensuring drinking water remains uncontaminated.
- A holistic approach is need for Urban River Management Plans (URMP), focusing on both the social and economic aspects of river management and the importance of context-specific models for reuse.
- Need for sustained citizen engagement to foster behavioural change towards treated wastewater reuse, drawing examples from successful international initiatives; "Behavioural change is not an outcome it is a process."
- There is a need for active collaboration between river cities through the River Cities Alliance to ensure that key learnings are shared and to promote robust pathways for professional development programs in river science and river planning.

The Presentation during the session:

Sl. No.	Topic of Presentation	Presenter
1.	Circularity in Wastewater Management	**Shri Nitin Bassi** Senior Program Leader **Smt. Saiba Gupta** Programme Associate, CEEW

PRACTITIONERS' FORUM

Practitioners' Forum

SESSION: SUSTAINABLE RIVER HEALTH MANAGEMENT (PF1)

DATE: SEPTEMBER 17, 2024 TIME: 15:30 TO 17:00 HRS

Rivers are under considerable stress due to pollution, deforestation, urbanization, and climate change. The consequences of neglecting river health can be dire, leading to water scarcity, adverse impact on public health and ecosystem degradation.

Healthy rivers are essential for maintaining biodiversity and ecosystem services, sustainable and reliable water source for both human and natural systems and can mitigate flood risks in flood prone regions.

India is implementing one of the largest river rejuvenation program through National Mission on Clean Ganga (Namami Gange) through a mission mode approach and partnerships and cooperation across the States, Cities, Industry, Civil Society and Public at large. There are some other successful initiatives also towards healthy river.

During the session, various States shared experiences in river health management & river rejuvenation.

Chair: Shri Dana Kishore, Principal Secretary, Telangana Govt. Municipal Administration and Urban Development Department.

Co-Chair: Shri Raj Sekhar, Secretary, Namami Gange and Rural Water Supply Department, Uttar Pradesh

Recommendations:

1. To ensure successful riverfront development, it is essential to adopt proven international models and innovative financing strategies like Hybrid Annuity Models (HAM) for long-term sustainability.
2. Strengthening regional water management, particularly through inter basin water transfers, should be prioritized to improve water security.
3. Incorporating urban mobility solutions and heritage conservation into development plans will foster holistic, sustainable urban growth.
4. Additionally, seeking global funding, such as from the Green Climate Fund and development banks, will provide crucial financial support for these initiatives.
5. Prioritize comprehensive, basin-wide strategies for river management rather than isolated efforts, ensuring holistic restoration and conservation.
6. Incorporate river management into urban master plans, aligning development with ecological preservation to maintain healthy river systems.
7. Implement decentralized wastewater treatment plants to address pollution locally, reducing the burden on centralized systems and improving water quality.
8. Foster circular economic models that promote resource reuse and sustainability in river basin management.
9. Strengthen public engagement and participation in river management initiatives, encouraging local communities to take active roles in preserving river ecosystems.
10. Implement coordinated planning and development strategies for comprehensive water resource management.
11. Prioritize resilience and ecosystem health in river basin management plans.
12. Incorporate flood control, disaster risk management, irrigation modernization, and water quality improvements.

13. Adopt adaptive and participatory governance approaches to involve all relevant stakeholders in decision-making.
14. Implement river deepening and dam construction, promote sustainable agriculture, and engage communities to boost productivity, improve water levels, and support socioeconomic benefits.
15. Expand river quality monitoring, improve municipal action plans, and adopt cleaner technologies and circular wastewater management for effective river pollution control.
16. Focus on timely completion of STP and CETP projects with strict adherence to deadlines to improve river health.
17. A commitment to restoring and protecting rivers is essential for both environmental and economic prosperity, ensuring that future generations can continue to benefit from theseecosystems.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Musi River front Development Project	**Shri Dana Kishore**, Principal Secretary, Municipal Administration and Urban Development Department, Telengana
2.	Sustainable River Health Management Strategies	**Shri Raj Sekhar**, Secretary, Namami Gange and Rural Water Supply Department, Uttar Pradesh
3.	A Mission to Combat Drought and Restore Ecosystems in India and Beyond	**Ms. Keziah Theresse Gerosano**, Chief Executive Officer, Dholakiya Foundation
4.	Integrated Water Resources Management and River Basin Planning	**Shri Joop Stoutjesdijk**, Lead Water Specialist, World Bank Group
5.	River Cleaning Initiatives in INDIA	**Shri Pradeep Agrawal**, IAS, Joint Secretary, National River Conservation Directorate
6.	River Quality Monitoring	**Shri Vishal Gandhi**, Scientist 'E', Central Pollution Control Board

SESSION : PARTNERSHIPS WITH COMMUNITY FOR CONVERGENT ACTION (PF2)

DATE: SEPTEMBER 17, 2024 TIME: 17:00 TO 18:30 HRS.

Participatory approach is one of the key principles of IWRM. It seeks participation of all stakeholders in the decision making process and water management particularly women and other disadvantaged groups.

Community participation is one of key strategies for managing water resources in an inclusive and sustainable way. In absence of meaningful community participation and ownership, sustainable water management poses a big challenge. Communities also provide a variety of perspectives, abilities, and knowledge to the task of boosting resilience and combating climate change.

Instead of being viewed as only beneficiaries, Communities should be included as partners in sustainable and climate resilient water sector management.

NGOs and other Advocacy Organizations can themselves contribute to water management and also mobilize community for participation in water management.

The States and NGOs shared their experiences of forging community participation and convergent action and related initiatives.

Chair: Dr. P. Shakil Ahmmed, ACS, WRD, Govt. of Meghalaya

Recommendations:

1. Successful implementation of water related projects in partnership with community and NGOs shall include "political will, executive support and community participation is right mantra that can work successfully in water conservation projects.
2. Community is the fulcrum of water conservation with involvement from planning, implementation, monitoring & evaluation and follow up.
3. Need for long-term planning minimum 20-30 years with clear inter sectoral collaboration and sharing of responsibilities with sense of team spirit and community involvement.
4. WUAs can receive 50% rebate on water charges collection which can be retained by WUAs (30% towards maintenance and 20% towards advanced tax collection). The rebate can be retained up to 70% if WUA is formed at the level of branch/distributaries, and up to 90% rebate if WUA is formed at main canal level.

5. Community shall be owners, stakeholders, beneficiaries etc. of community driven projects, this will ensure that the funds for the project never exhaust and rather it runs forever.
6. Use of GIS, RS, (SALT, OLC) are improved approaches and may be encouraged for better management of water resources.
7. Community based small lift schemes (IDC) may be encouraged as it controls water flow particularly in irrigation, focus on efficient water use.
8. "Bhujal Saheli" women warriors an initiative in Haryana state empowering women to manage ground water resources and may further also promoted across the nation as it reflects role in community engagement.
9. Collaboration may be facilitated between different sectors (e.g., agriculture, fisheries, horticulture) to ensure comprehensive water management.
10. Water management should be prioritized as a key sector for addressing climate change.
11. Strengthening of community involvement in decision making should be facilitated to ensure ownership and responsibility.
12. Development of robust monitoring systems should be a priority to track water usage and resource availability.
13. Regularly assess the outcomes of water management initiatives to make data - driven improvements.
14. Encourage farmers to choose crops based on water availability and seasonal resources.
15. Provide guidance and support for crop diversification and management practices.
16. Implementation of similar practices as seen in Gujarat, including canal rehabilitation, transferring irrigation management to Water Use Associations (WUAs) and ensuring successful people participation in irrigation management.
17. Leverage natural farming methods and explore innovative solutions such as using non-fertile silt for infrastructure projects.
18. Form and strengthen WUAs in other states, focusing on the broader water sector and ensuring practices are adaptable to local needs.
19. Sufficient resources should be allocated to support community-driven water management projects.
20. Use technological advancements to find innovative solutions for water conservation and management.
21. Continuously seek and implement new ideas and practices to improve water resource management.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	The Power of Community Partnership in Addressing Water	**Dr. Shakil P. Ahammed**, IAS Additional Chief Secretary, Water Resources Department, Government of Meghalaya
2.	Partnership With Community And NGO's for Convergent Action	**Shri Prashant J Patil**, IAS, Special Secretary to Government, Irrigation and CAD Department, Govt. of Telangana
3.	Partnership with Community and NGOs for Convergent Action	**Shri Pratul Saxena** Project Director, Atal Bhujal
4.	Community Participation in Integrated Water Resources Management in Gujarat	**Shri P. V. Vyas,** Superintending Engineer, Gujarat Water Resources Development Corporation, Gujarat
5.	Partnership with Community and NGOs for Convergent Action- Rejuvenation of Waterbodies	**Smt. Gayatri Nair Lobo**, Chief Executive Officer, ATE Chandra Foundation, Maharashtra
6.	Partnership with Community & NGOs for convergent action	**Shri Akhilesh Parey**, Water Resources Investigation & Development Department, Government of West Bengal

SESSION : INTEGRATED WATER MANAGEMENT IN AGRICULTURE - IRRIGATION 4.0 (PF3)

DATE: SEPTEMBER 18, 2024 TIME: 10:00 TO 11:30 HRS.

Participatory approach is one of the key principles of IWRM. It seeks participation of all stakeholders in the decision making process and water management particularly women and other disadvantaged groups.

Community participation is one of key strategies for managing water resources in an inclusive and sustainable way. In absence of meaningful community participation and ownership, sustainable water management poses a big challenge. Communities also provide a variety of perspectives, abilities, and knowledge to the task of boosting resilience and combating climate change.

Instead of being viewed as only beneficiaries, Communities should be included as partners in sustainable and climate resilient water sector management.

NGOs and other Advocacy Organizations can themselves contribute to water management and also mobilize community for participation in water management.

The States and NGOs shared their experience of forging community participation and convergent action and related initiatives.

Chair: Shri John Kingsly, Secretary, Govt. of Madhya Pradesh

Co-Chair: Shri Rajesh Sukumar, Toppo Secretary, WRD, Govt. of Chhattisgarh

Recommendations:

- Adoption of Pressurized Pipe Irrigation Systems leads to remarkable & unprecedented improvement in Water Use Efficiency
- Pressurized Pipe Irrigation Systems help to implement Integrated Water Resources Management. Water savings with pressurized piped systems in agriculture sector can be used for other uses
- Pressurized piped systems are more adaptable to changes in cropping pattern
- Policy Measures for PPP (rental model) to provide drip/sprinklers to farmers; Direct incentive for adopting water efficient crops; Disincentivizing use of farm electricity
- As manual tasks decrease with adoption of automated irrigation systems, powered by IoT sensors and AI; demand will rise for skilled farm-workers to operate and troubleshoot digital systems
- Smart irrigation systems will create jobs for skilled technicians to install and maintain hardware like sensors, pumps, and controllers in rural areas.
- As farmers will need technical support to manage IoT networks and AI systems, demand will increase for consultants, trainers, and educators to help them use the new technologies effectively.

- Irrigation 4.0 will drive innovation, prompting entrepreneurs to create solutions like data analysis, farm management software, and IoT system development.
- Develop training programs to bridge the digital divide, especially for small-scale farmers.
- Promote partnerships between governments, private sectors, and researchers to scale up Agriculture 4.0 adoption globally.
- Documentation and dissemination of successful models/strategies is needed to promote best practices.
- Piped distribution network is a feasible solution to land acquisition and R&R issues in many cases.
- Redesigning of CADWM Program is needed.
- Mobile app based demand generation and SCADA automation system for efficient and accessible irrigation network.
- Participatory groundwater management and demand side groundwater management is needed.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Integrated Water Management through Water Use Efficiency Gains in Agriculture Use	**Shri John Kingsly**, Secretary, WRD & NVDD Government of Madhya Pradesh
2.	Key initiatives in Irrigation Sector PMKSY-Achievements and Challenges	**Shri Praveen Kumar**, Commissioner (SPR), DoWR, RD&GR
3.	Integrated Water Management in Agriculture – Irrigation 4.0 Insights from Irrigation & Water Resources Department, Haryana	**Dr. Satbir Singh Kadian**, Engineer-in-Chief, Irrigation & WRD, Haryana
4.	Integrated Water Management in Agriculture – Irrigation 4.0	**Shri Rajesh Sukumar Toppo**, IAS, Secretary, Water Recourses Department, Government of Chhattisgarh
5.	Ensuring Water Resource Securities to Sustain Agriculture in Coastal and Arid Region	**Shri Jayantilal Gorsiya**, Chief Program Coordinator, Arid Communities & Technologies

SESSION: SPRINGSHED MANAGEMENT AND CONSERVATION INITIATIVES FOR HILLY STATES (PF4)

DATE: SEPTEMBER 18, 2024 TIME: 11:45 TO 13:15 HRS.

The local communities consider the springs holy due to their role in natural filtration of water as it travels through shallow and deep aquifers. Springs also serve the important hydrological function of sustaining winter and dry season stream flows in non-glaciated catchments, helping sustain riverine ecosystems and biodiversity. Despite the key role that springs play, they have not received due attention and many are drying up.

Some States particularly in the hilly region, have done good work in the conservation and revival of springsheds. They shared their experiences including research work done by National Institute of Hydrology in this regard.

Chair : Shri Anand Bardhan, Chief Project Director & CEO, SLNA, Govt. of Uttarakhand

Co-Chair : Dr. P Shakil Ahmmed, ACS, Water Resources Department, Govt. of Meghalaya

Recommendations:

1. Baseline studies shall be carried out since a large number of springs have dried or become seasonal in Himalayan regions and across India as well.
2. Inter-sectoral convergence of line departments is necessary for breaking the silos in the management of springs.
3. It is recommended to use technologies such as GIS, UAV, GPS, CLART in capacity building programs for community members.
4. It is recommended to have web enabled databases, dedicated web portal inventory, mapping of every spring in each village, and identification of dying spring and its recharge zones. A systematic database using web based GIS application is necessary for monitoring and protection of springs.
5. Policy and convergence of all financial management for springshed conservation shall be carried out at district levels including capacity building of locals by making them para hydrogeologist (like in Sikkim) to activate participation of community members.
6. Since, management of springs has been a blind spot in India's Water Management, hence demanding springs to be placed in National Water Policy (NWP).
7. I t is recommended that spring conservation and its management may fall under the scope of CGWB, since spring water is sourced from GW. It is also vital to note that framing of rules, regulations and policies regarding sustainable use and for prevention of over-exploitation of spring water mainly carried out through commercialized water bottle industry etc.
8. States/UTs may be encouraged to seek NITI Aayog's funding for conducting studies in the field of springshed management.

9. Jal Jeevan Mission may consider funding of sustenance of spring sources to ensure their protection and CGWB can be the custodian of springs.
10. It should be encouraged to bring back the divinity and cultural connection with springs to involve the community in the protection of springs.
11. Six steps protocol for spring rejuvenation may be adopted by all States/UTs.
12. It is recommended to setup a dedicated single regulatory authority at State Level so that ownership and prioritization of spring revival at political and administrative levels can be regulated and ensure better management of springsheds.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Springshed Management & Conservation Initiatives for Hilly States	**Shri Anand Bardhan**, IAS Additional Chief Secretary, Govt. of Uttarakhand
2.	Springshed Management in Meghalaya	**Dr. Shakil P. Ahammed**, IAS Additional Chief Secretary to the Government of Meghalaya
3.	Policy narrative to sustain springs for a Viksit Bharat, 2047	**Shri A Muralidharan**, Deputy Adviser, NITI Aayog
4.	Springshed Management and Conservation Initiatives for Hilly States	**Dr. Soban Singh Rawat**, Scientist 'F', National Institute of Hydrology, Roorkee
5.	Groundwater and aquifers	**Ms. Uma Aslekar**, Executive Director, Advanced Center for Water Resources Development and Management, Pune
6.	Dhara Vikas: A Government Initiative for Spring Revival in the Sikkim Himalaya	**Dr. Subash Dhakal**, Deputy Director cum Nodal Officer Spring-shed Management and Climate Change, Rural Development Department, Government of Sikkim

SESSION : OPEN, INTEGRATED AND SHARED WATER DATA AND INFORMATICS (PF5)

DATE: SEPTEMBER 18, 2024 TIME: 14:15 TO 15:45 HRS.

Open, Integrated and Shared Water Data and informatics is essential for decision making for optimal and sustainable water management. Some of the States in India have taken initiatives towards making water data public and building various applications for water managers.

National Hydrology Project has expanded and improved the extent, quality and accessibility of water resources data and information and has strengthened the capacity of various water resources management institutions in India. The program being implemented through the States and other Central Agencies across the country.

The States shared the good practices in the field of water data and informatics.

Chair: Dr. Alok Sikka, Country Representative, IWMI

Co-Chair: Shri Anand Mohan, Joint Secretary (RD&PP), DoWR, RD&GR, MoJS

Recommendations:

- Water Productivity (WP) and Water Footprints Atlas can help identify hot spots for optimizing water productivity and minimizing water footprints
- A decision tool/framework like WP Atlas can help identify and highlight the linkages among the policies/programs that need to be addressed to reap synergistic gains among the programs
- Proliferation and intensification of state-of-the-art IoT devices like RTDAS, SCADA, Dams & Barrage monitoring is vital for development of a robust and reliable database for targeted water resources management.
- Water Resources Information System can be useful in timely, rigorous and useful data analysis for decision support
- Development & Strengthening of a sound Information System based on "One Nation, One Database" concept through collaborative participation between National Water Informatics Centre (NWIC) and State Water Informatics Centre (SWIC).
- Globally, investments have been made in generating hydro-information products and services. More Focus is needed for dissemination and utilization of generated services.
- Remote sensing-based information have demonstrated to be good supplement to ground based observations, save time and resources, and provide rapid assessment for various water resources applications.
- Enhance the timelines of data dissemination by ensuring real-time information is available for flood and irrigation management.
- Develop mobile and web applications to increase accessibility and usability of flood and irrigation data for all stakeholders.

- Water data should be easily accessible. Incomplete, inaccurate, or poorly documented data can limit its usability
- Standardized protocols for collecting, managing, and sharing water data leads to consistency and seamless integration into decision-making.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Water Productivity and Water Footprints Atlas: A Tool to Maximise Efficient Use of water	**Dr Upali Amarasinghe** , Emeritus Scientist & Shri Alok Sikka, Country Representative, International Water Management Institute
2.	Development of Water Information System Network Pan India- With Special focus on Proliferation of IoT based instrumentation regime for Remote data collection	**Shri Anand Mohan**, Joint Secretary (RD&PP), DoWR, RD&GR, MoJS
3.	Tapping the potential of Hydro-informatics in India	**Dr Anish Kumar**, Senior Hydro-informatics Consultant, The World Bank
4.	Karnataka Water Data Informatics	**Dr P. S. Rao,** Director Water Resources Department, Government of Karnataka
5.	Bihar e-system for Flood & Irrigation Quick Response An Initiative by Mathematical Modeling Center (MMC), FMISC, Bihar for Jurisdiction based Information Dissemination for Flood and Irrigation	**Shri Prashant Kumar**, Director, Mathematical Modeling Center, Water Resources Department, Government of Bihar

SESSION : ACHIEVING UNIVERSAL ACCESS TO DRINKING WATER IN RURAL AREAS (PF6)

DATE: SEPTEMBER 19, 2024 TIME: 9.30 to 11.00 HRS.

India has launched an ambitious initiative of providing clean drinking water through taps to every rural household. More than 150 million taps have already been provided in rural areas. There are several challenges in delivering water supply through taps across the rural and remote areas including source sustainability, quality of drinking water and maintenance of the distribution network.

Jal Jeevan Mission and Key States shared their experiences in implementing scheme and the best practices adopted and lessons learnt.

Chair: Ms. D. Thara, Additional Secretary, MoHUA
Co-chair: Sh. Chandra Bhushan Kumar, AS & MD, DDWS (JJM), Ministry of Jalshakti

Recommendations:

To achieve universal access to drinking water in rural areas, key strategies include:

1. There should be strong political commitment and supportive policies to prioritize rural water access.
2. Establishment of clear regulations and standards for water quality should be ensured.
3. Participatory decision-making with local communities should be implemented.
4. Infrastructure Development through Construction of piped water supply systems to reach remote villages.
5. Boreholes and protected wells to access groundwater shall be installed.
6. Rainwater harvesting systems in areas with seasonal rainfall shall be installed.
7. Community Engagement by Empowering local communities to manage water systems through training and capacity building shall be explored.
8. Maximum number of water user committees to ensure equitable distribution and maintenance shall be established.
9. Awareness about water hygiene and sanitation practices need to be promoted.
10. Source sustainability through rain water harvesting, recharging etc shall be ensured.
11. Technology and Innovation by exploring new water treatment technologies suitable for rural settings, utilizing solar powered schemes for sustainable water extraction, developing cost effective and efficient water distribution systems using SCADA & automation etc. shall be implemented.

12. Financial Sustainability by securing funding from government, international organizations, and private sector need to be ensured.
13. Robust O& M policy, multi modal grievance redressal system needs to be implemented.
14. Regular water quality monitoring and surveillance has to be achieved.
15. Frequent interaction with stake holders has to be emphasised.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Atal Mission for Rejuvenation & Urban Transformation (AMRUT) & AMRUT 2.0 For Water Secure Cities	**Smt. D Thara**, Additional Secretary, MoHUA
2.	Universal Access: Drinking Water In Rural Areas	**Shri Chandra Bhushan Kumar**, AS & MD (JJM), Department of Drinking Water and Sanitation
3.	जल जीवन मिशन - नमामि गंगे एवं ग्रामीण जलापूर्ति विभाग, उत्तर प्रदेश सरकार	**Dr. Raj Shekhar**, IAS, Managing Director, U.P. Jal Nigam (Rural)
4.	Sustainable Practices in Rural Water Supply - Karnataka Initiatives : Aligning with O&M Practices	**Shri Nagendra Prasad K**, IAS, Director, Rural Water Supply & Sanitation Department

SESSION : PARTNERSHIPS AND COOPERATION WITH NGO SESSION FOR INCLUSIVE WATER DEVELOPMENT AND MANAGEMENT (PF7)

DATE: SEPTEMBER 18, 2024 TIME: 16.00 to 17.30 HRS.

Chair: Shri Krishan Jindal, Programme Advisor, DHAN Foundation
Moderator: Shri Divyang Waghela, Head (Water), Tata Trust

Despite substantial investment and development in the water sector, managing India's ever-increasing water demand has become extremely tough. If this does not improve, India's already water-stressed situation will deteriorate even worse. According to a Niti Aayog estimate from 2018, over half of India's 600 million people may face acute water scarcity by 2030. Community participation/Jan Bhagidaari is the only way to better prepare people to tackle impacts of climate change and directly involve them in the conservation effort.

Across India, several NGOs and concerned citizens are striving to address the approaching water problem. There initiatives have helped in ecosystems restoration, climate resilient sustainable agriculture, integrated and efficient water management and climate change adaptation.

Recommendations:

1. To enable effective engagement between government and civil society organizations (CSOs) in water management programs, it is recommended to establish a National Water Management Platform. This platform would serve as a central hub for dialogue, knowledge sharing, and collaborative action. The National Water Mission take the lead in creating and overseeing this platform, ensuring its neutrality and inclusivity.
2. An institutional structure is needed to facilitate effective collaboration with CSOs in development projects.
3. Given the critical role of springs in water security, particularly in mountainous regions, it is recommended that to build/ strengthen framework / policy guideline on springshed management. This framework should outline the government's commitment to protecting and restoring springs, and provide a framework for coordinated action at national and state levels.
4. A comprehensive documentation process is essential to capture valuable lessons that can inform future initiatives and prevent duplication of efforts. NWM can anchor the process to create a knowledge repository to capture success and failures.
5. To ensure successful water management, it is essential to capture and share effective behavioral change communication tools that can be used to mobilize communities.

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Community-led Conservation and Development of Traditional Water Resources: Tanks and Ponds	**Shri V. Venkatesan,** CEO, DHAN Foundation
2.	Community Based Water Management Approaches	**Smt. Dipa Biswas**, Team Lead, Water for People India **Shri Hemant Pinjan** State Lead, Water For People India
3.	Partnership and Cooperation with NGOs for Inclusive Water Development and Management	**Shri Prasanna Prabhu**, Chairman, Vyskti Vikas Kendra, Art of Living
4.	Partnership and Cooperation with NGOs for inclusive Water Development & Management	**Shri Sentimongla Kechuchar**, Executive Director, NEIDA
5.	Partnership and Cooperation with NGOs for Inclusive Water Development and Management	**Shri V K Madhavan,** Chief Executive, Water Aid India

SESSION : Water Prosperous World: Synergising Hrit Actions for Ecological Sustainability and Human Wellbeing (PF8)

DATE: SEPTEMBER 19, 2024 TIME: 11:15 to 12:45 HRS.

Moderator: Shri Santosh Gupta, CEO, Indian Social Responsibility Network (ISRN)

Recommendations:

1. Adopt a holistic approach to water management by integrating spiritual, cultural, and ecological values, treating water as a vital, sacred resource for life and sustainability.
2. Promote eco-centric practices through HARIT initiatives, prioritizing collaboration, ecological growth, and circular ecology over traditional economic and anthropocentric models.
3. Integrate cultural aspects into water management frameworks, combining traditional knowledge with modern technology for sustainable resource use.
4. Empower communities through active participation in - decision making processes, enhancing governance and fostering local ownership of water resources.
5. Encourage widespread adoption of the Seechewal Model for sustainable water management and sewage systems in rural areas.
6. Promote environmental education and moral values among children, engaging them in community service projects like waterway clean-ups.
7. Support afforestation initiatives by distributing free plants to make regions greener and more environmentally sustainable.
8. A dopt sustainable water management practices using smart sensors and citizen involvement.
9. Improve water quality and prepare for climate adaptation with enhanced hydrological modeling.
10. Engage communities and stakeholders in data collection for better water resource management.
11. Encourage collaboration across governments, civil society, private sector, and international organizations for sustainable water management.
12. Leverage innovative technologies to promote ecological sustainability and ensure equitable access to water for all.

The Presentations during the session were:

Topic : Water Prosperous World: Synergising Hrit Actions for Ecological Sustainability and Human Wellbeing

Speakers

1. **Dr. Anil Mehta,** Principal Researcher and Head Water Centre & Citizen Science Lab Vidya Bhawan Udaipur
2. **Shri Chinmay Pandya Ji,** Pro-Vice Chancellor, Dev Sanskriti Peeth, Rishikesh
3. **Shri. Atul Jain,** Deendayal Research Institute
4. **Shri Amaranadha Reddy**, Director R&D, Samskruti Foundation
5. **Dr. Shipra Mathur,** Senior Journalist, Andolan Panchjanya.
6. **Sant Shri Balbir Singh Seechewal ji**
7. **Dr. Karsten H Jensen,** Project Leader, Danida Ayad River Basin India IWRM Assessment Project University of Copenhagen, Denmark
8. **Swami Chidanand Saraswati ji**, President and Spiritual Head of Parmarth Niketan Ashram, Rishikesh

Water Convention

Water Convention
(18 sessions)

A platform for gathering professionals and technology providers from around the world to share their knowledge, practical experiences, and novel technologies to address the current and emerging water challenges. The Water Convention covered seven sub themes across water sector:

(i) Collaboration and Cooperation for Water Security
(ii) Integrated Water Resources Management
(iii) Development Challenges in Water Sector
(iv) Risk and new approaches to climate resilience
(v) Ground Water Sustainability and Management
(vi) Water Governance and Financing
(vii) Water related disasters and its management

The Water Convention focussed on spurring knowledge sharing, fruitful discussions and debates among water leaders and practitioners through high quality presentations on technological innovations, management strategies and best practices.

WC-1 Collaboration and Cooperation for Water Security.

Effective collaboration and cooperation among stakeholders are pivotal in achieving water security, especially under the evolving challenges posed by climate change and its impact on hydrology. This session covered the importance of such approaches to mitigate the adverse impact of climate change on water resources and achieve water security for all.

TOPICS:

1. Public Private Partnership (PPP) for Efficient Water Management in Urban and Rural Areas.
2. Need for Cooperation and Coordination for Water Security keeping in view of the Climate Change Scenario.

Date: September 17, 2024 Time: 15:30 to 17:00 Hrs.

Chair: Prof. Asit Biswas, Visiting Professor, University of Glasgow, UK
Co-Chair: Dr. Marck Arcieri, President, ICID, Italy
Moderated by: Shri A. B. Pandey, Secy. General, ICID

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Public-Private Partnerships (PPP) for a sustainable and reliable water supply in India	Dr Ajay Pradhan Cetus Consulting Solution Services Pvt. Ltd.
2.	An Innovative Indigenous Approach The Case of Guyana	Mr. Shaik Baksh CEO, Guyana Water Inc.
3.	Projected Precipitation Extremes Over A Transboundary River Basin Under 1.5°C, 2°C and 3°C Global Warming Levels	Shri Shakti Suryavanshi, National Institute of Hydrology (NIH), Roorkee, India
4.	River Rejuvenation : Coping With Emerging Risks	Shri D. P. Mathuria, Chief Engineer, Central Water Commission
5.	Dam safety/Water Resources Asset Management	Dr. R.K. Gupta, Former Chairman, CWC
6.	Vision @2047 Paradigms and Pathways for India' Water Security	Dr. M.K. Sinha, Chairman, Godavari River Management Board
7.	Flood Risk Management/GLOFS	Shri N.N.Rai, Chief Engineer, Central Water Commission
8.	Urban Water Security	Shri Rumi Aijaz, Observer Research Foundation
9.	Global Challenges & Perspectives for understanding water management & Food Security : Challenges in India	Dr. Dinesh Kumar, Executive Director, Institute for Resource Analysis & Policy

Recommendations:

- Establish tailored PPP models for urban water projects based on local needs.
- Strengthen community involvement in water supply projects and invest in training local officials for better contract management and oversight.
- Enforce environmental safeguards for equitable access and source protection.
- Develop long-term asset management plans for infrastructure sustainability.
- Invest in climate-resilient water infrastructure and seek international funding for sustainable water infrastructure.
- Improve water management through better data and monitoring.
- Implement IWRM for sustainable water management practices.
- Encourage India-Nepal collaboration for water management and flood control in the Rapti river / Ganga basin.
- Formulate adaptive water management strategies for varying global warming scenarios.
- Develop climate-resilient infrastructure like water storage and flood defences.
- Establish a joint data sharing platform for real-time precipitation and hydrological monitoring.
- Increase local awareness and preparedness for extreme weather events in vulnerable areas.

Full Length Papers (WC-1)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Public-Private Partnerships (PPP) for a sustainable and reliable water supply in India	Dr Ajay Pradhan Cetus Consulting Solution Services Pvt. Ltd.
2.	An Innovative Indigenous Approach The Case of Guyana	Shaik Baksh CEO, Guyana Water Inc.
3.	Projected Precipitation Extremes Over A Transboundary River Basin Under 1.5°C,2°C and 3°C Global Warming Levels	Sonali Kumari[1], Vikram Singh[2], Shakti Suryavanshi[3*], Hardeep Maurya, Huidrom Romita Devi[4] [1]Department of Soil and Water Conservation Engineering, SHUATS, Prayagraj, Uttar Pradesh, India [2]Department of Soil and Water Conservation Engineering, SHUATS, Prayagraj, Uttar Pradesh, India [3]National Institutes of Hydrology, Roorkee, Haridwar, Uttarakhand, India [4]Department of Soil and Water Conservation Engineering, SHUATS, Prayagraj, Uttar Pradesh, India

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WC-2 Collaboration and Cooperation for Water Security.

TOPICS:

3. Synergizing Cooperation Across Boundaries
4. From Water Conflicts to Cooperation.

Date: September 17, 2024 Time: 17:00 to 18:30 Hrs.

Chair: Prof. Asit Biswas, Visiting Professor, University of Glasgow, UK
Co-Chair: Dr. Marck Arcieri, President, ICID, Italy
Moderated by: Shri A. B. Pandey, Secy. General, ICID

Panelists

1. **Srinivas Chokkakula,** PhD, President and Chief Executive, Senior Fellow and MoJS Research Chair, Centre for Policy Research.
2. **Shri Ashok Kumar,**
3. **Dr M.K. Sinha,** Chairman, Godavari River Management Board

Recommendations:

1. A coordinated action among the riparian states, as well as the involvement of local communities and international organisations is desired for a comprehensive approach in the Brahmaputra basin on various aspects such as climate change, ecological health and socio-economic well-being under environmental management.
2. A tripartite water-sharing agreement between China, India, and Bangladesh may be established to include provisions for regular-data sharing, joint infrastructure projects, and mechanisms for dispute resolution. This agreement would provide a framework for joint management of the Brahmaputra's water resources, ensuring the interests of all riparian states are considered.
3. It is recommended that the riparian states undertake trust-building measures to build trust among the countries, reduce potential conflicts, and demonstrate the benefits of cooperation.
4. There is a need for additional research on the long-term impacts of climate change on the Brahmaputra basin.

Full Length Papers (WC-2)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Conflict to Cooperation Potential of Deterministic Water Sharing Agreements: Challenges and Ways Forward	Shri Sudheer Padikkal Kerala Water Resources Department (KIIDC) Shri Saji Samuel Cauvery Water Regulation Committee, CWC
2.	Fostering Cooperation across shared Waters: A case study of Brahmaputra Basin	Dr. Arvind Kumar, President, India Water Foundation






WC-3 Integrated Water Resources Development & Management.

Integrated water resources development and management is an approach that promotes a holistic coordination between the water, land and other related sectors to optimize the outputs and make water available to all, including for human beings, livestock, agriculture, industrial, recreational and for environmental purposes. However, one of the major challenges in the implementation of the IWRM is the siloed approach to natural resources development and management. Session covered the case studies on best practices of IWRM, including the opportunities, barriers and enablers in its implementation.

TOPICS:

1. Integrated planning and conjunctive use of Surface Water and Ground Water.
2. Role of Inter Basin Water Transfer in Water Resources Development.

Date: September 17, 2024 Time: 15:30 to 17:00 Hrs.

Chair: Shri S. Masood Hussain, Former Chairman, CWC
Co-Chair: Ms. TS Anitha Shyam, Member (S), CGWB

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Role of Inter Basin Water Transfer in Water Resources Development Critical review of Manas-Sankosh-TeestaLink A case for prosperity of India	Dr. C. S. Gokhale, Professor, School of Construction, NICMAR University, Pune, Maharashtra & Dr. R. K. Jain, Head, IWW Secretariat, NWDA
2.	A Multicriteria decision-making framework for flood management by incorporating inclusive planning process in inter-basin inter-basin transfer	Shri Kumar Lal Babu, Research Scholar, Department of Civil Engineering, Indian Institute of Technology, Delhi
3.	Changing land use with a decline in the number of water bodies in India: A big concern for groundwater resources, particularly for the Urban Clusters	Dr. Sudarsan Sahu Scientist 'D', Central Ground Water Board
4.	Water Conversation Initiatives through Project Jaltara	Shri Mahadev Gomare, Vyakti Vikas Kendra India-The Art of Living Social Projects
5.	Inter Basin Water Transfer – Opportunities and Challenges	Shri Bhopal Singh, Member (D&R), Central Water Commission
6.	Geo-Morphometric Study of Watershed Using Remote Sensing (RS) and Principal Component Analysis (PCA) Technique	Dr. Mohit Kumar, Assistant Professor, CED, Punjab Engineering College, Chandigarh
7.	Fostering Cooperation across shared Waters: A case study of Brahmaputra Basin	Dr. Arvind Kumar, President, India Water Foundation

Recommendations:

- Inter Basin Water Transfer (IBWT) can significantly increase water availability in arid or water-scarce regions, supporting agriculture, industry, and domestic needs thus boosting economic activities.
- Large-scale transfers require significant investment, infrastructure, and maintenance; therefore, economic feasibility and long-term sustainability need careful planning.
- Combining IBWT with integrated water resource management approaches along with climate change research studies can optimize overall water use and sustainability.
- Conjunctive use of both surface water and groundwater resources to meet water demands and enhance resource sustainability is essential. It helps in balancing the availability and quality of water.
- Effective integrated management can improve water supply reliability, enhance ecosystem health, reduce costs, and increase resilience to climate change.
- Collaboration between stakeholders can lead to innovative solutions and shared resources, enhancing the effectiveness of water management efforts.

Full Length Papers (WC-3)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Innovative Groundwater Management: The Impact of the Shirpur Pattern in Dhule District, Maharashtra	Kalyani Kondekar[1] and Pradeep Bhalage[2] [1, 2] Hi-Tech Institute of Technology Aurangabad M.S India
2.	Challenges in Rolling out Conjunctive Water Management Plans: Case of Chalakudy Subbasin in Kerala	E.B Gilsha Bai[*] K.P Rema [**] Padikkal Sudheer[***] [*,**]Faculty of Agricultural Engineering, Kerala Agricultural University,Kerala,India. [***]Kerala Water Resources Department, Kerala, India
3.	Water Conservation Initiatives Through Project JalTara	P. Wayal, P. Prabhu, S. Garg, R. K. Singla & S. Srivastava Vyakti Vikas Kendra India, Bangalore, India
4.	Changing land use with a decline in the number of water bodies in India: A big concern for groundwater resources, particularly for the Urban Clusters	Sudarsan Sahu, Central Ground Water Board, Rajiv Gandhi National Ground Water Training and Research Institute, Raipur, Chhattisgarh, Ministry of Jal Shakti, Government of India

5.	A Sustainable Solution Maharashtra Water Crises	Raibbhann Sarnobbat Research Scholar, COEP Tech University, Pune Vaibhav Markad Research Scholar, COEP Tech University, Pune
6.	Inter Basin Water Transfer - Opportunities and Challenges	Bhopal Singh Director General National Water Development Agency Deepika Sharma Deputy Director National Water Development Agency
7.	Critical review of Manas-Sankosh-Teesta Link-A case for prosperity of India	Dr C S Gokhale Professor, NICMAR, Pune Dr R K Jain Head, IWW Secretariat, NWDA New Delhi
8.	A Multicriteria Decision Making Framework for Flood Management by Incorporating Inclusive Planning Process in Inter Basin Water Transfer	Ashok K. Keshari[1], Kumar Lal Babu[2] , Rajeev Ranjan[2] and Ashish Dobhal[2] [1]Professor, Department of Civil Engineering, Indian Institute of Technology Delhi [2]Research Scholar, Department of Civil Engineering, Indian Institute of Technology Delhi

WC-4 Integrated Water Resources Development & Management.

TOPICS:

3. Inclusive Water Planning.
4. Issues in Water Scarcity and way forward.
5. Water Quality — Issues and Challenges.

Date: September 17, 2024 Time: 17:00 to 18:30 Hrs.

Chair: Shri Navin Kumar, Member WP&P, CWC
Co-Chair: Shri Anup Kumar Srivastava, Executive Director, (Technical), NMCG

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Hydrologic Modeling for Flood Management of the Bharathapuzha River Basin	Shri Arun C., Assistant Director, IDRB
2.	IWRM plan for Bhagirathi Basin Developing a Glacio-Hydrological Model and IWRM Plan for Bhagirathi River Basin, Uttarakhand, India	Dr Sonu Khanal, PhD Senior Hydrologist and Climate Change Expert
3.	Effects of Marginal Irrigation Water on Soil properties	Satendra Kumar, Sushindra K Gupta and Anupma Sharma National Institute of Hydrology, Roorkee
4.	Near future projection of meteorological droughts in the districts of Assam under CMIP6 climate projections	Shri W. R. Singh, North Eastern Regional Centre National Institute of Hydrology, Guwahati
5.	Development and Implementation of Water Quality Testing Kits in Educational Institutes	Ms. Mona Kejariwal, Associate Professor, University of Mumbai
6.	Assessment of water quality of River Ganga and suitability of river water for different uses	Dr. Sakshi Sharma Central Water Commission, New Delhi
7.	Center for Environmental Toxin and Emerging-contaminant Research (CENTER) Advanced Carbon-Based Electrocatalysts for Enhanced Detection of Waterborne Pollutants	Dr. Kogularasu Sakthivel

Recommendations:

1. Synchronized reservoir operations in River basins to control floods, address coastal issues, and maintain river e-flow with adaptive water management strategies to tackle issues arising due to climate change.
2. Proactive drought management with involvement of public, rainwater harvesting, climate-friendly agriculture, and eco-tourism for climate change resilient water resources management
3. Development and use of latest cutting-edge technologies like:
    - nanostrip assays for quicker, more accurate water quality testing and making these testing technology accessible to public for regular use.
    - using graphene and carbon nanotubes for efficient detection of waterborne pollutants, recommending further research to enhance these materials for water monitoring.

Full Length Papers (WC-4)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Assessing Environmental Flow Requirements for Sustainable River Ecosystem Management Through a Case Study of the Meenachil River in Kerala	A. B. Jacob & C. Arun Assistant Director, Irrigation Design & Research Board, Kerala R. Priyesh Chief Engineer, Irrigation Design & Research Board, Kerala
2.	Managing the Bharathapuzha River Basin of Kerala for Sustainable Water and Flood Management	S. J. Nair Project Associate, Indian Institute of Technology, Palakkad P. Athira & S. Singh Associate Professor, Indian Institute of Technology, Palakkad C. Arun & Ashok Jacob Assistant Director, Irrigation Design & Research Board, Kerala P. Sreedevi Director, Irrigation Design & Research Board, Kerala
3.	Urban Flood and Drought: Concepts & Contexts	Dr Harinarayan Tiwari, Advisor, PANDT Soft Solutions Private Limited Founder, Floodkon
4.	Near future projection of meteorological droughts in the districts of Assam under CMIP6 climate projections	WR SINGH[1*], S BARMAN[1], S ARORA[1], SK SHARMA[1], SV VIJAYA KUMAR[1], N HAZARIKA[1] North Eastern Regional Centre, National Institute of Hydrology, Guwahati

5.	Effects of Marginal Irrigation Water on Soil Properties	Satendra Kumar, Sushindra Kumar Gupta & Anupma Sharma Scientist, National Institute of Hydrology Roorkee
6.	Phytoremediation Study For The Removal of Heavy Metals From Polluted River Systems	Bhanupriya Sharma[1] and Sameer Vyas[2] [1] Ph.D. Research Scholar, Gautam Buddha University, Greater Noida [2]Central Soil and Materials Research Station, New Delhi
7.	Advanced Carbon-Based Electrocatalysts for Enhanced Detection of Waterborne Pollutants	Sakthivel Kogularasu, Yen-Yi Lee, Guo-Ping Chang-Chien Center for Environmental Toxin and Emerging-Contaminant Research, Cheng Shiu University, Kaohsiung 833301, Taiwan
8.	Water Quality Testing Kits – Methods, Challenges, and Future Prospects	Mona Kejariwal Associate Professor, RD and SH National College, Bandra West, Mumbai
9.	Assessment of water quality of River Ganga and suitability of river water for different uses	Sakshi Sharma Central Water Commission, New Delhi Vartika Central Soil and Materials Research Station, New Delhi Pankaj Kumar Sharma Central Water Commission Devendra Pratap Mathuria Central Water Commission

WC-5 Integrated Water Resources Development & Management.

TOPICS:

6. Knowledge Transfer and Skill Development in Water Sector.
7. Designing Optimal Cropping Pattern for Efficient Water Resource Utilization.

Date: September 18, 2024 Time: 10:00 to 11:30 Hrs.

Chair: Dr. Girija Bharat, MD, Mu Gamma Consultants Pvt. Ltd.
Co-Chair: Shri DS Chaskar, National Water Academy, CWC, MoJS

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Integrated Water Resources Development and Management /Knowledge Transfer and Skill Development in Water Sector	Shri P. S. Solanki, Scientist-C, CWPRS
2.	Capacity Building And Water Literacy Programs In Water Conservation Projects	Shri Nagraj , Project Director, Vyakti Vikas Kendra India - The Art of Living Social Projects
3.	Citizen Science for Water Management: Comprehensive Approach to Conserve Ecohydrology of Ahar River Basin	Smt. Nidhi Sehrawat Analyst, Climate Change and Sustainability
4.	Capacity Development and Knowledge Transfer on Integrated Water Resources Management from the Learning at Grassroots	Shri A. Gurunathan, Director, DHAN Foundation
5.	Optimization Modelling for Sustainable Irrigation Water Management	Shri Rajnish Singh North Eastern Regional Institute of Water and Land Management (NERIWALM), Tezpur, Assam
6.	Irrigation Modernization and Designing Optimal Cropping Pattern	Shri Vikas Goyal Water Resources Specialist, Asian Development Bank
7.	Knowledge Management for Capacity Building in Water Sector	Shri D S Chaskar, Chief Engineer & Head, National Water Academy

Recommendations:

- Integrating citizen science into water resource management planning could significantly enhance the conservation of the basin's ecohydrology and contribute to sustainable water management practices.

- The Advance ICT techniques along with 5G technologies and IoT give the excellent solution to collect process and analyze the water resources data without visiting the sites. The high speed reliable data transmission pertains to water resources may effectively help to potentially improve the management of water resources.

- The integration of advanced technologies like remote sensing and artificial intelligence with Linear Programming, Non Linear Programming, Dynamic Programming, and Genetic Algorithms models enhances their effectiveness, paving the way for more resilient and adaptive irrigation strategies. Effective integrated management can improve water supply reliability, enhance ecosystem health, reduce costs, and increase resilience to climate change.

- Community-centric approach led to significant and measurable improvements in water availability, agricultural productivity, and ecosystem health. These approaches have increased groundwater levels and surface water resources, ensuring reliable sources for agriculture and domestic use.

- Cropping pattern optimization is a critical component of integrated water resource management since it could substantially improve agricultural water use efficiency. Advanced irrigation techniques optimize water application, while integrating surface and groundwater resources enhances water availability and reliability.

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Full Length Papers (WC-5)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Morphometric Analysis of Bharathapuzha River Basin in Kerala	K. Sumesh Draftsman, Irrigation Design and Research Board, Kerala A. S. Beegom Assistant Professor, Department of Civil Engineering, College of Engineering Trivandrum, Kerala R. Priyesh Chief Engineer, Irrigation Design & Research Board, Kerala
2.	Integrated Smart Water Resource Management using Private 5G Wireless Technology: A Study on 5G Use Case at CWPRS	Pratap Singh Solanki, Annapurna Patra, Ujjal Chowdhruy, N. D. Atkekar Central Water and Power Research Station, Pune
3.	Optimization Modelling for Sustainable Irrigation Water Management	Sagarika Patowary Assistant Professor (WRE), North Eastern Regional Institute of Water and Land Management Rajnish Singh, Saurav Bhattacharjee Research Associate (WRE), North Eastern Regional Institute of Water and Land Management Uzzal Mani Hazarika Associate Professor (WRE), North Eastern Regional Institute of Water and Land Management

WC-6 Challenges in Water Sector Infrastructure

World over, the water sector faces numerous challenges. These include climate change, increasing water demand, water stress and scarcity, water pollution, financial constraints, aging infrastructure, etc. Such challenges are of concern to countries in the global south which are still in the developing phase. Session discussed such challenges and offered solutions to overcome them.

TOPICS:

1. Expansion of Micro Irrigation Infrastructure.
2. Water Infrastructure Development – Technological, Ecological,Financial Challenges etc.
3. Waste Water Management — Recycle, Reuse and Circular Economy.

Date: September 18, 2024 Time: 10:00 to 11:30 Hrs.

Chair: Shri Avinash Mishra, Forme Adviser (Water Resources, Environment & Forest, Climate Change, Tourism & Culture) NITI Aayog
Co-Chair: Shri Brajendra Swaroop, ED Projects, NMCG

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Accelerating coverage of Micro Irrigation in India	Shri Rihit Lal, National Committee on Precision Agriculture & Horticulture (NCPAH), Ministry of Agriculture & Farmers Welfare
2.	Application Of Risk Screening Tool To 200 Specified Dams	Shri Sarbjit Singh Bakshi Chief Engineer, Central Water Commission
3.	An initiative to modernize irrigation infrastructure of Jharkhand	Dr. Alok Kumar Executive Engineer, Water Resources Department, Government of Jharkhand
4.	Modernizing Water Infrastructure with Innovative Rubber Dam technology as Cutting-Edge Solution to Water Scarcity	Shri Amit Gupta, Sr. General Manager, WAPCOS Limited
5.	Collaborative Strategies for Addressing Water Scarcity Insights from India-Tanzania Partnership	Shri Amit Gupta, Sr. General Manager & Chandrasekhar Kombathula, Ex-Country Manager, WAPCOS Limited
6.	Radhakunj Lake- A Case Study Of Nature Based Solution In Pollution Mitigation	Kaveri Devaiah M, Lingaraju Yale and Srinivas Reddy Vyakti Vikas Kendra India-The Art Of Living Social Projects
7.	Enhancing Urban Resilience through the Circular Economy in Used Water Management	Smt. Saiba Gupta, Shri Nitin Bassi, Sustainable Water Programme, CEEW
8.	Development Challenges in Irrigation Sector of Assam	

Recommendations:

Paper: Accelerating coverage of Micro Irrigation in India:

(i) Adoption of water saving techniques such as drip/sprinkler irrigation to enhance the Water Use Efficiency in agriculture.
(ii) Recent advances in the science of sensor technologies and the internet of things (IoTs) can be useful in the automation of drip irrigation systems; this automation can help in addressing the emerging challenges of labour shortages and inefficiency of water use in agriculture.
(iii) Micro irrigation has multiple benefits that is efficient irrigation water application , fertilizer application, enhanced production .

Paper: Risk Screening Tool, IWW 2024:

(i) Risk assessment of more than 6000 dams in India will help in making informed decisions on prioritization of the rehabilitation of the dams in coming 5 years.
(ii) Provides better understanding of individual issues at a dam
(iii) Allows transparent assessment and prioritization of dam safety aspects

Paper: An initiative to modernize irrigation infrastructure of Jharkhand:

(i) To enhance irrigation efficiency; substituting the traditional canal system with pipe line projects and promoting field application of water through micro irrigation methods have become the necessity in the State to achieve full irrigation potential in the State.
(ii) Some pipeline projects have been launched in the Dumka, Deoghar, Jamtara, Giridih, Saraikella-Kharsawan districts that possess substantial portion of High Patch (Tand) irrigable land remaining unutilized every year.

Paper: Modernizing water infrastructure with innovative Rubber Dams Technology, as Cutting -Edge Solution to water scarcity:

(i) The Bandhara (i.e. Check dam in Marathi language) project, initiated as a pilot endeavor, showcases the efficacy of Rubber Dams in addressing acute water shortages in eastern Maharashtra.
(ii) Leveraging Collapsible Rubber Dam technology, the project demonstrates a sustainable, technologically feasible, and financially viable approach to water conservation and management.
(iii) Bandhara project implementation in Maharashtra exemplifies the successful integration of innovative, indigenous technology and strategic decision-making to address water scarcity challenges.

Paper-5: Collaboration Strategies for addressing water scarcity: Insight from India-Tanzania Partnership:

(i) GoI, through WAPCOS, is spearheading initiatives to bolster water infrastructure and alleviate scarcity in Tanzania through strategic deployment of resources and meticulous planning.
(ii) WAPCOS has emerged as a key player in Tanzania's water sector, bringing to bear its technical prowess and innovative approaches to overcome complex challenges.
(iii) This paper serves as a testament to the power of strategic partnerships and technical ingenuity in confronting complex global challenges.

Paper: Radhakunj Lake-A study of nature based solution to mitigate water pollution:

(i) The combination of boulder checks, plant-based remediation, microbial action, an enhanced growth of algae and aeration system at the lake proved effective in mitigating pollution and restoring the health of the water body.

Paper: Enhancing Urban Resilience through the Circular Economy in Used Water Management:

(i) Enhancing Urban Resilience through the Circular Economy in Used Water Management, as improved urban Sanitation leading to more waste water generation and thereby enhancing treated wastewater reuses.

Full Length Papers (WC-6)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Accelerating coverage of Micro Irrigation in India	Er. Rohit Lall, Joint Project Director, National Committee on Precision Agriculture & Horticulture
2.	Community Micro Irrigation Projects in Kerala	Sudheer Padikkal, S Thilakan, Prakash Idiculla & KS Sobha Kerala Water Resources Department
3.	Modernizing Water Infrastructure with Innovative Rubber Dam Technology, as Cutting-Edge Solution to Water Scarcity	Amit Gupta Sr. General Manager (Power), WAPCOS Limited, Gurgaon
4.	Application of Risk Screening Tool To Drip Dams	Rakesh Kashyap[1], Sarbjit S Bakshi[2] & Neeta Arora[3], [1]Project Director, DRIP II & III, CWC [2]Director, DRIP II & III, CWC [3]EMC Deputy Team Leader, DRIP II & III
5.	Collaborative Strategies for Addressing Water Scarcity: Insights from India-Tanzania Partnership	Amit Gupta Sr. General Manager (RD), WAPCOS Ltd Chandrasekhar Kombathula Chief Engineer (INFRA), WAPCOS Ltd.
6.	Radhakunj Lake- A Case Study Of Nature Based Solution To Mitigate Water Pollution	Kaveri Devaiah M, Lingaraju Yale and Srinivas Reddy Vyakti Vikas Kendra India, Art of Living International Centre

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WC-7 Challenges in Water Sector Infrastructure

TOPICS:

4. Operation and Management of Water Assets and Infrastructure.
5. Source Sustainability Irrigation, Domestic Use etc.

Date: September 19, 2024 Time: 15:30 to 17:00 Hrs.

Chair: Shri K Vohra, Chairman, CWC

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	A comprehensive Ingress Protection test facility at CW&PRS for large sized hydro-meteorological instruments	Dr. Muhammed Faisal Rahman Scientist 'B' (Electrical), Central Water & Power Research Station (CWP&RS), Pune
2.	Data-Driven Optimization of Pumped Storage Systems with Orange : Enhancing Efficiency and reliability	Dr. Raghuchandra Garimella, Scientist 'B', Central Water & Power Research Station (CWP&RS), Pune
3.	Proactive Management of Dam Infrastructure: Enhancing Wire Rope Integrity Through Advanced Magnetic Testing Techniques	Omkar Kiran Sakurikar, Scientist 'B', Central Water & Power Research Station (CWP&RS), Pune
4.	Groundwater occurrence: Aquifer disposition and Irrigation water quality assessment in Barak Valley, Assam, North East India.	Rinku Rani Das Scientist-C, Central Ground Water Board
5.	Challenges of Reservoir Sedimentation and Meeting the Conflicting Demands	Arunlal K., Asst. Exe. Engineer Water Resources Department (Irrigation) Govt. of Kerala

Recommendations:

1. In desiltation of reservoirs due weightage should be given to the benefits such as enhanced storage, water security and flood cushion along with adoption of efficient water management strategies.
2. Automatic weather stations, water level sensors, flow sensors, data loggers, telemetry, control panels, enclosures etc, have to be tested for ingress protection (IP XX) rating prior to the field installation to ensure their reliability and accuracy in various environmental conditions
3. Implementing magnetic testing for wire ropes ensures adherence to safety, minimizing risks of equipment failure in critical operations for the identification of internal defects and corrosion in wire ropes, enabling timely maintenance and reducing the likelihood of accidents.
4. Develop and design a framework to integrate Orange with real time data from sensors, SCADA systems and weather forecasts.

Full Length Papers (WC-7)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Application of comparative indicators for performance evaluation and benchmarking of irrigation projects in Madhya Pradesh	R. V. Galkate[1], R. K. Jaiswal[1], A. K. Lohani[2] [1] Scientist, National Institute of Hydrology, Central India Hydrology Regional Centre, WALMI Campus, Bhopal [2] Scientist, National Institute of Hydrology, Roorkee
2.	Data-Driven Optimization of Pumped Storage Systems with Orange: Enhancing Efficiency and Reliability	Raghuchandra Garimella, T.K. Swain, Muhammed Faisal Rahman, Saurabh Singh Central Water and Power Research Station, Pune
3.	A comprehensive Ingress Protection test facility at CW&PRS for large sized hydro-meteorological instruments	Muhammed Faisal Rahman, T.K. Swain, Venkat Sai Surendra Bandi, N.D.Atkekar Central Water and Power Research Station, Pune
4.	Proactive Management of Dam Infrastructure: Enhancing Wire Rope Integrity Through Advanced Magnetic Testing Techniques	Omkar Kiran Sakurikar & Golak Chandra Sahoo Central Water and Power Research Station, Pune

5.	Groundwater occurrence: Aquifer disposition and Irrigation water quality assessment in Barak Valley, Assam, North East India	Rinku R Das[1], T Chakraborty[2] [1.] Central Ground Water Board, State Unit Office Shillong [2.] Central Ground Water Board, North Eastern Region, Guwahati
6.	Challenges of Reservoir Sedimentation and Meeting the Conflicting Demands	Arunlal K. Assistant Executive Engineer, Kanjirappuzha Irrigation Project, Irrigation Department, Government of Kerala Levins Babu Cottur Executive Engineer, Kanjirappuzha Irrigation Project, Irrigation Department, Government of Kerala Priyesh R. Chief Engineer, Irrigation Design and Research Board, Irrigation Department, Government of Kerala

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WC-8 Challenges in Water Sector Infrastructure

TOPICS:

6. Water Sanitation and Hygiene (WASH).
7. Improvement in Water Use Efficiency in Existing Water Infrastructure.

Date: September 18. 2024 Time: 14:45 to 15:45 Hrs.

Keynote Speaker : Ms. Dina Umali - Deininger, Regional Director, Sustainable Development, The World Bank

Chair: Shri Anshuman, Director, TERI

Co-Chair : Ms Amal Talbi, Global Lead for water in Agriculture, The World Bank

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Advancements in Microbial Fuel Cells for Wastewater Treatment: A Comprehensive Review	Rohan Kumar Department of Civil Engineering, IIT Bombay Tuhin Banerji MuGamma Consultancy, Delhi
2.	Improvement In Water Use Efficiency In Existing Water Infrastructure	Dr. Pradeep Bhalage Hi-Tech Institute of Technology , Ch. Samabhajinagar
3.	Conventional and sensor-based methods for flow measurements – testing, calibration and comparative analysis	Dr. Sampath, Scientist –C, CWPRS, Pune
4.	Administrative and Infrastructural Measures for Improving WUE in Existing Open Canal Network of an Irrigation Project	Dr. D. G. Durbude (PhD IITR) Professor & Head (IWDM),WALMI Aurangabad
5.	Adoption of innovative irrigation technologies for improving water use efficiencies	Dr. Sanayanbi Hodam North Eastern Regional Institute of Water and Land Management, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti
6.	Water Use Efficiency for Water and Food Security on a Livable Planet	Dina Umali-Deininger South Asia Regional Director for the Planet Department, The World Bank

Recommendations:

1. Implement modern technologies such as Piped Distribution Networks (PDN), SCADA technology, IoT platforms, and micro-irrigation systems to enhance WUE when needed to improve water productivity and save water in areas with limited water availability.
2. Develop mobile apps and use advanced monitoring tools like Agri-Drones for monitoring results, and at the same time ensure a good quality of field information for ground truthing.
3. Develop policies to support the adoption of latest technologies and practices, including PIM, fertigation, and mulching techniques, as well as policies that will put the right incentives for farmers to grow the adequate corps based on water endowment and land availability.
4. Innovative water distribution chambers and PDN can boost WUE and help with improving quality of service: timely delivery of water, flexible, equitable, and transparency.
5. Use innovation such as integration of MFCs in wastewater treatment plants for sustainable energy generation and pollutant removal to encourage circular economy and improve recovery of resources from wastewater Applying the principle of moving from waste to resources.
6. Infrastructure is important but not sufficient, we need policies and incentive to value water, including pricing, for users to rationalize the use of water, water conservation and protecting water quality, and keeping the farmers at the center of the system to ensure adoption of technology and adequate use of resources for sustainability and improving their livelihood.

Full Length Papers (WC-8)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Smart Laboratory for Clean Rivers- An Indo-Danish Collaboration Approach to Clean Rivers	Nikhilesh Singh[a], Shishir Gaur[a], Anitha K. Sharma[b], Dheeraj Joshi[c] [a]Indian Institute of Technology (BHU) [b]Embassy of Denmark in India [c]National Mission for Clean Ganga
2.	Improvement in Water Use Efficiency in Existing Water Infrastructure	Dr. Pradeep Bhalage Professor, Hi-Tech Institute of Technology, Ch. Samabhajinagar Prof. Govind Dhage, Principal, Hi-Tech Institute of Technology, Ch. Samabhajinagar

3.	Conventional and sensor-based methods for flow measurements – testing, calibration and comparative analysis	Dr. S. Sampath, Scientist -C B. Suresh Kumar, Scientist -D M. Nagaraj, Asst. Research Officer, Central Water & Power Research Station, Pune
4.	Administrative and Infrastructural Measures for Improving WUE in Existing Open Canal Network of an Irrigation Project	Dilip G Durbude & V. B. Nath Water and Land Management Institute, Chhatrapati Sambhajinaghar
5.	Adoption of innovative irrigation technologies for improving water use efficiencies	Sanayanbi Hodam, Rajnish Singh, Sagarika Patowary North Eastern Regional Institute of Water and Land Management, Tezpur

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WC-9 Risks and New Approaches to Climate Resilience

Climate change is impacting extreme weather across the planet. Record-breaking heat waves on land and in the ocean, extreme rainfall events, severe floods, years-long droughts, extreme wildfires, and widespread flooding during hurricanes are all becoming more frequent and more intense. Thus, one of the major impacts of climate change is on the hydrological cycle. Traditional approaches to Water Resource Management (WRM) face challenges related to climate-induced risk, real-time data acquisition, inferring available data, and using it for decision-making. During the session, innovative strategies were explored to address these challenges.

TOPICS:

1. Role of Advanced Technologies in Water Security.
2. Managing Climate Uncertainty in Water Sector.
3. Risks in Water Sector due to Climate Change.

Date: September 18, 2024 Time: 11:15 to 13:15 Hrs.

Chair: Prof. A. K. Gosain. Ex. Prof. IIT Delhi.

Co-Chair: Dr. Anil Kumar Lohani, Scientist G, NIH, Roorkee

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	GIS Based Soil Loss Assessment using USLE Method: A Case Study of Bina River Basin	Dr. L. N. Thakural National Institute of Hydrology, Roorkee
2.	Variation in Altitude effect on Stable Isotopes ($\delta^{18}O$) across Himalayan Region	Siddharth Arora, Scientist B, National Institute of Hydrology North Eastern Regional Centre Guwahati
3.	Water Scarcity and Way forward with GIS	Shri Suneet Manjavkar, Industry Head Water – Business Development, ERIS India
4.	Topographic & Hydrographic Survey for Hydrodynamic Modelling of River Brahmaputra near Tezpur, Assam	Er. Garvit Jain, AEE, NEHARI, Brahmaputra Board
5.	Assessment Of Climate Resilience and Water Security Strategies Using A Stakeholder Mapping Technique In Ramanathapuram District, Tamil Nadu	Dr. Subha MuthuKumar, Lead, S.Sanchita - Consultant, IIHS
6.	Investigating Perceptions of Flood Resilience: Methodological Insights and Implications for India	Shri Nirul Ranjan Patra Research scholar, Environmental Science and Engineering Department (ESED) Indian Institute of Technology Bombay (Powai), Mumbai
7.	Risks and New Approaches for climate resilience in aquatic food system Experiences from Indo - German technical cooperation project SAFAL	Shri Sandeep Nayak, Advisor for fisheries and aquaculture German Development Cooperation (GIZ), Sustainable Aquaculture for Food & Livelihood (SAFAL), India
8.	Satellite Derived Satellite based Machine Learning Approach	Dr. M.Selva Balan Scientist 'E', Central Water and Power Research Station, Khadakwasla, Pune

Recommendations:

1. GIS software can be combined with existing methodologies, e.g., the Universal Soil Loss Equation, machine learning tools for river basin mapping, and flood management, to increase the granularity and efficacy of water interventions.
2. Studying the movement and dispersal of stable water isotopes can enhance the ability of policymakers and stakeholders to make informed decisions by generating robust information on water sources, e.g., glacier, snow, rain, or groundwater, on evaporation and precipitation cycles, on groundwater recharge, and on spring shed management. Water isotope tracking also provides information on transboundary water flow dynamics, which can otherwise be difficult to obtain reliably.
3. There exists a need to establish a unified definition of flood resilience in the literature. A proposed definition is the capacity of a system to return to its normal function in the shortest time possible after being affected by flood hazards. This definition clarifies the role of resilience management, which improves upon risk management by going further to acknowledge potential system failures and fostering the ability to absorb, recover from, and adapt to extreme, unpredictable floods.
4. Topographical and hydrographical modeling was shown to be a robust methodology for simulating complex hydrological processes. As a case study, simulation results were used to provide thorough feedback on a proposed bridge construction. However, mathematical modelling alone cannot be used to determine how sediment in a water body changes over time, and physical models must be used in tandem to provide accurate predictions as the effects of climate change increase in scope and intensity.
5. Machine learning classification algorithms have been demonstrated as effective tools for drawing upon vast resources of satellite data. As shown in the session, minimal amounts of survey data can be used to extrapolate estimates for the depth at each point across an entire body of water. However, machine learning, as applied to climate change research, must be used cautiously, as machine learning algorithms are only as robust as the data they are trained on and the underlying statistical assumptions of the chosen algorithm(s).

Full Length Papers (WC-9)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Advancements in Microbial Fuel Cells for Wastewater Treatment: A Comprehensive Review	Rohan Kumar, Department of Civil Engineering, IIT Bombay Tuhin Banerji MuGamma Consultancy, Delhi

2.	GIS Based Soil Loss Assessment using USLE Method: A Case Study of Bina River Basin, India	L.N. Thakural Surface Water Hydrology Division, National Institute of Hydrology, Roorkee Abhishek Agrawal Surface Water Hydrology Division, National Institute of Hydrology, Roorkee Chandra Prakash Surface Water Hydrology Division, National Institute of Hydrology, Roorkee Rahul Kumar Farm Engineering, Banaras Hindu University, Varanasi Sanjay Kumar Surface Water Hydrology Division, National Institute of Hydrology, Roorkee Richa Pandey Surface Water Hydrology Division, National Institute of Hydrology, Roorkee A.K. Lohani Surface Water Hydrology Division, National Institute of Hydrology, Roorkee
3.	Water Scarcity and Way forward with GIS system	Suneet Manjavkar Esri India Technologies Pvt. Ltd. Dr. Seema Joshi Esri India Technologies Pvt. Ltd.
4.	Investigating Perceptions Of Flood Resilience: Methodological Insights And Implications For India	Nirul Ranjan Patra[a], Subhankar Karmakar[a b] [a]Environmental Science and Engineering Department, Indian Institute of Technology Bombay, Mumbai [b]Interdisciplinary Program in Climate Studies, Indian Institute of Technology Bombay, Mumbai
5.	Assessment of Climate Resilience and Water Security Strategies using a stakeholder mapping technique in Ramanathapuram district, Tamil Nadu	Dr.Subha Muthu Kumar, S.Sanchita & G.Harish Indian Institute for Human Settlements

WC-10 Risk and New Approaches to Climate Resilience

TOPICS:

4. **Utility of Artificial Intelligence and Geospatial Tools for Decision Making.**
5. **Vulnerability of Water Bodies, Spring, Glaciers etc. due to Climate Change.**
6. **Participatory Precision Water Management for Ensuring Water Security.**

Date: September 18, 2024 Time: 16:00 to 17:30 Hrs.

Chair: Dr. Parveen Gupta, Scientist, Space Application Centre (ISRO)
Co-Chair: Dr. Shresth Tayal, Head Water Resources, DHI-India

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Automation & Energy Efficiency: Transforming Kerala's Water Supply	Narayanan Namboodiri TV, Chief Engineer SR, Kerala Water Authority THAMPY S & JAYAPRAKASH V Assistant Ex Engineer, Kerala Water Authority
2.	FAMS Intelligence for Water-Climate-Food-Energy Security:A Decision-Making Geospatial AI Platform Viraj Loliyana, Shreyas Nambiar	Dr. Viraj Loliyana, Sr. Consultant – Agriculture & Allied Sectors Maharashtra Institution for Transformation
3.	Isotopic fingerprinting of precipitation sources, geochemical distribution, and associated climate controls in tropical river basins of the Western Ghats, India	Tripti Muguli National Institute of Hydrology (NIH), Roorkee, India
4.	Revitalizing Rural Water Security: Community-Led Innovations in Groundwater Sustainability in Mau Masaniya Village in line with Atal BhuJal Yojana	Dr. Rakesh Singh , Scientist - D Central Ground Water Board, North Central Region, Bhopal, M.P.
5.	Harnessing The Power Of Real-Time AI, Geospatial Data, And Big Data Analytics To Achieve Sustainable Water Demand And Allocation In The Ken-Betwa Link Project (KBLP)	Prashast Kumar Dixit, CEO, KEN-BETWA LINK PROJECT (KBLP)
6.	Participatory Precision Water Management in Kundalia Irrigation Project	Wim Bastiaanssen Hydrosat, Water Resources Department Madhya Pradesh
7.	Water Resilient City - Utilization of Digital Tools in Water and Sewage Infrastructure Management and Decision Support Systems	Waldemar Mlas, MD DHI PL, VP WiC Central and South Europe

Recommendations:

- With growing populations and urbanisation, water challenges such as increased demand, leakages, and flood risks are becoming more pressing. Integration of technology is important for solving policy issues. The role of AI, and GeoAI techniques have potential for application in monsoon variability that affects water recharge and availability, dam safety, river flow forecasting, river ecosystem management, water distribution, water quality analysis and management, water purification, supply and management.
- Artificial Intelligence and Machine Learning can improve the accuracy of predictions and optimise processes. There is a need to automate water management to enhance operational efficiency, increase cost savings by reducing labour cost, and increase energy savings to improve climate resilience.
- Different sets of technologies need to be utilised to make water systems climate resilient.
    - This can help in planning reservoir operations and flood mitigation efforts. Incorporation of isotopic and geochemical techniques should be used in studying river basin hydrology and microclimate aspects in humid tropics.
    - By combining thermal satellite data with SCADA systems, irrigation agencies can closely monitor and manage water distribution, ensuring better water productivity and reduced wastage.
    - AI-driven flood intelligence applications, and integrated hydrological and hydrodynamic models enhance the accuracy of flood predictions and to improve preparedness in flood-prone regions.
    - Monitoring water productivity from satellites is the future. Using mobile phone apps is crucial to enhance participation.
- The community-driven approach is crucial for climate resilience. Collective action to implement artificial recharge structures for groundwater sustainability under Atal Bhujal Yojana has demonstrated improved community resilience to water scarcity. This needs to be replicated at a larger scale.
- There are significant challenges including ethical considerations in data sharing between state and central agencies that need to be considered.

Full Length Papers (WC-10)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Topographical and Hydrographical Survey of Brahmaputra River Using DGPS, Echotrac, and LiDAR Drone for Hydrodynamic Modelling	Er. Garvit Jain, Dr. Ranbir Singh & Er. Ranjit Deka Brahmaputra Board
2.	Automation and Energy Efficiency: Transforming Kerala's Water Supply Management	Narayanan Namboothiri, Thampy S, Jayaprakash Kerala Water Authority, Kerala Narayanan Namboothiri Chief Engineer, Kerala Water Authority, Kerala Thmpy S, Jayaprakash V Assistant Executive Engineer, KWA, Kerala
3.	Evaluation of Time Series-Based ANFIS Model for Groundwater Quality Prediction	Rinkumoni Barman, STA (Chemical), Central Ground Water Board, Faridabad
4.	Recent Advances in Forest Hydrology using Artificial Intelligence and Machine Learning Techniques	Shubhi Kulshrestha(1)& Sumantra Basu(2), (1) Senior Technician, ICFRE-IFB, Hyderabad (2)Scientist-'B', ICFRE-FRI, Dehradun
5.	FAMS Intelligence for Water-Climate-Agriculture-Energy Security: A Decision-Making Geospatial AI Platform	V. D. Loliyana[1], Shreyas Nambiar[2] [1]Dr. Viraj Loliyana, Sr. Consultant, Maharashtra Institution for Transformation [2]Mr. Shreyas Nambiar, COO, FAMS Design Solution Private Limited
6.	Isotopic Fingerprinting of Precipitation Sources, Geochemical Distribution, and Associated Climate Controls in Tropical River Basins of The Western Ghats, India	Tripti M Hydrological Investigations Division, National Institute of Hydrology, Roorkee Gurumurthy GP Birbal Sahni Institute of Palaeosciences, Lucknow Lambs L EcoLab, University of Paul Sabatier, Toulouse Riotte J & Audry S Geosciences Environnement Toulouse, University of Paul Sabatier, Toulouse

WC-11 Ground Water Sustainability and Management.

Groundwater is the major water resource in the world. Its safe development and management is of paramount importance. This requires its continuous monitoring, robust data analysis, adaptive management strategies, and relevant policy interventions. All these aspects were discussed during the session.

TOPICS:

1. Ground Water Assessment — Tools & Techniques
2. Challenges in Sustainable Management of Ground Water
3. Water Security Plans at Local Level.

Date: September 18, 2024 Time: 14:15 to 15:45 Hrs.

Chair: Shri SK Ambast, Chairman, CGWB
Co-Chair: Shri Sushil Gupta, Former Chairman, CGWB

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Bhujal Borewell Monitoring App Digital Innovation for Ground Water Resources Management	Shri Vijay Gawade, Waterlab Solutions Pvt. Ltd.
2.	Prediction of Monthly Rainfall Based on Machine LearningTechniques in Pushkar City, Rajasthan, India	Dr. Sushindra Kumar Gupta, Scientist-C, Groundwater Hydrology Division, National Institute of Hydrology, Roorkee
3.	Utilization of Lithological Data in Groundwater Modeling and Resource Management in Assam	Dr. Bijoy Krishna Chetia, Hydrologist Jal Jeevan Mission, Govt of Assam
4.	High Resolution Aquifer Mapping using Advanced Heliborne Transient Electromagnetic Survey for Groundwater Assessment and Management at Gram Panchayat Level of Srimadhopur Block, Sikar District Rajasthan, India.	Shri Anirudh Singh, Assistant Geophysicist, Central Ground Water Board, Headquarter, Faridabad
5.	Identifying productive well sites in hard rock terrains using Geophysical Techniques: A case study from Sonbhadra District, Uttar Pradesh	Shri Amitosh Chandra, Scientist B, Central Ground Water Board, Northern Region, Lucknow

6.	Delineation of Aquifer System and Estimation of Ground Water Resources of Chandigarh City for Sustainable Management of Ground Water	Ms Iti Gupta Scientist-D, CGWA, DoWR, RD & GR, MoJS
7.	Integrated Hydrogeochemical Evaluation of Groundwater Quality for Diverse Water Uses in the Ayad River Basin, Udaipur, India	Shri Kuldeep Pareta DHI (India) Water & Environment Pvt Ltd.
8.	Groundwater Sustainability Challenges for Hard-rock Aquifers in the Highly Irrigated Semi-Arid Region of Telangana	Dr. Abhilash Kumar Paswan Water Resource Expert, WELL Labs

Recommendations:

- **Promoting indigenous innovative technologies for ground water level monitoring:** Use of indigenous low-cost tools like sonar based applications and IoT devices for groundwater monitoring needs to be promoted. These tools are efficient, non-invasive, fast, and cost effective.
- **Prioritise database Integration and application of machine learning in modelling and prediction:** Integration of databases from various projects and schemes, and utilization of this data in groundwater studies, is needed to address existing data gaps. Utilize advanced techniques such as machine learning for rainfall prediction and prediction of water resources availability.
- **Utilize advanced geophysical techniques for high resolution mapping:** Promote use of advanced geophysical methods such as Heliborne Transient Electromagnetic surveys for high-resolution aquifer mapping and identification of potential groundwater zones/sites for artificial recharge even at village level.
- **Development of aquifer-specific management plans:** Formulate targeted strategies for different aquifers based on their unique characteristics and challenges .

Full Length Papers (WC-11)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Integrated Hydrogeochemical Evaluation of Groundwater Quality for Diverse Water Uses in the Ayad River Basin, Udaipur, India	Kuldeep Pareta[1], Karsten H. Jensen[2], and Sachin Karan[3] [1]DHI (India) Water & Environment Pvt. Ltd [2]University of Copenhagen (UCPH). Copenhagen K, Denmark [3]Geological Survey of Denmark and Greenland (GEUS). Copenhagen K, Denmark
2.	Delineation of Fresh & Saline Groundwater and the Influence of the Satluj River in a Salinity-Prone Area of Southwestern Punjab	Sunil Kumar, Saquib Azmi & Anurag khanna Central Ground Water Board, North Western Region, Chandigarh Shashikant Singh Central Ground Water Board, Faridabad Kriti Mishra Central Ground Water Board, State Unit Office, New Delhi
3.	High-Resolution Aquifer Mapping Using Advance Heliborne Transient Electromagnetic Survey for Groundwater Assessment and Management at Gram Panchayat Level of Srimadhopur Block, Sikar District, Rajasthan, India.	K. P. Singh & Sunita Devi Central Ground Water Board, WR, Jaipur Shashi Kant Singh Central Ground Water Board, CHQ, Faridabad N. Veera Babu Central Ground Water Board, WCR, Ahmedabad M. Vidyasagar Central Ground Water Board, NER, Guwahati
4.	Utilization of Lithological Data in Groundwater Modelling and Resource Management in Assam	Syedain Abbasi, IAS Special Chief Secretary to the Govt of Assam Kailash Karthik N, IAS Secretary to the Govt of Assam Bijit Dutta, Add. Chief Engineer & Sukanya Talukdar, Asst. Executive Engineer Public Health Engineering Department, Assam Dr. Bijoy Krishna Chetia, Hydrogeologist, Jal Jeevan Mission, Assam
5.	Bhujal App: Revolutionizing Ground Water Monitoring	Vijay Gawade, Nikhil Vaiude, Debashish Bhattacharjee Waterlab Solutions Pvt. Ltd.
6.	Prediction of Monthly Rainfall Based on Machine Learning Techniques in Pushkar City, Rajasthan, India	Sushindra Kumar Gupta[1], Satendra Kumar[1] & Anupma Sharma[1] [1]Scientist, Groundwater Hydrology Division, National Institute of Hydrology Roorkee

7.	Challenges in Sustainable Management of Ground Water Challenges for Gujarat's Ground Water Resources A Case Study Of Salinity Ingress In Coastal Region Of Saurashtra	ER. Kirit B. Trivedi, B.E.(Mech.), MBA (Marketing), CDM, M.I.E, F.I.V, Former D.E.E. (Mech.), Government of Gujarat, Gandhinagar-Gujarat
8.	Groundwater Sustainability Challenges for Hard-rock Aquifers in the Highly Irrigated Semi-Arid Region of Telangana	Abhilash Kumar Paswan [1,2] [1]WELL Labs at IFMR, Bengaluru. [2]CSIR-National Geophysical Research Institute Hyderabad
9.	Assessment of Aquaculture Impact on Shallow Groundwater in the Godavari Delta, Andhra Pradesh	Y R Satyaji Rao, Scientist G, Environmental Hydrology Division, National Institute of Hydrology Y Siva Prasad, Scientist-C, Deltaic Regional Centre, National Institute of Hydrology

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WC-12 Ground Water Sustainability and Management.

TOPICS:

4. Ground Water Quality Related Challenges and Solutions
5. Ground Water Management Plans

Date: September 18, 2024 Time: 16:00 to 17:30 Hrs.

Chair: Dr. Dipankar Saha, Ex. Member, CGWB

Co-Chair: Shri Ranjan Kumar Ray, Scientist - D, CGWB

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Water Quality and Sustainable Development: A Vision for 2030 and Beyond	Dr Jakir Hussain, Research Officer,Central Water Commission
2.	Assessment of Aquaculture Impact on Shallow Groundwater in the Godavari Delta, Andhra Pradesh	Dr. Y. R. Satyaji Rao, Scientist G and Head, Environmental Hydrology Division, National Institute of Hydrology, Roorkee
3.	Presence of Emerging Contaminants in Groundwater of Krishna Godavari Deltas, Andhra Pradesh, India	Dr. M. K. Sharma National Institute of Hydrology, Roorkee
4.	Groundwater Quality Scenario In the Coastal Tract of Candolim, Calangute And Anjuna Villages In Bardez Taluk Of North Goa District, Goa State	Sangita.P.Bhattacharjee, Central Ground Water Board, SWR, Bangalore
5.	Advancing Real-Time Groundwater Quality Monitoring Using Machine Learning Based Prediction Models	Shri Vipin Kumar Malik, Scientist - C CGWB, MoJS
6.	Water Quality Index Modelling, Multivariate Statistical Analysis, and Geochemical Analysis to Monitor the Controlling Processes of Groundwater Quality in the Lower Narmada Basin, India	Vaishnavi Parihar, Sc-B Central Ground Water Board, North Central Region, Bhopal
7.	Integrated Watershed Management for Sustainable Development: A Case Study of Kadvanchi Village in Jalana District, MH, IND	Shri Rishikesh Sanjay Aher, Hi-Tech Institute of Technology, Aurangabad, MH, India
8.	Groundwater Recharge Through Desilting In Mauda, Maharashtra	Shri Mahadev, Vyakti Vikas Kendra India The Art of Living Social Projects

Recommendations

- It was pointed out that though there are a lot of policy interventions and investments happening to improve groundwater levels and augment groundwater resources, there is not much progress related to initiatives and investments for groundwater quality management and remediation. Towards this end following recommendations emerged:

- Scope of Water Quality monitoring needs to widened both in terms sources of water (like water bodies, reservoirs etc.) and constituents (including micro-plastics, pharmaceutical residues, fertilisers, pesticides and other emerging pollutants)
- Regulatory Framework for prevention of groundwater contamination needs to be evolved.
- Area specific plans for groundwater quality management needs to be devised.
- Strategies to prevent seawater intrusion in coastal areas need to be developed, considering factors such as groundwater extraction rates and potential sea level rise.

Full Length Papers (WC-12)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Water Quality Index Modelling, Multivariate Statistical Analysis, and Geochemical Analysis to Monitor the Controlling Processes of Groundwater Quality in the Lower Narmada Basin, India.	V.K Kulshreshtha & Vaishnavi Parihar Central Ground Water Board, North Central Region, Bhopal
2.	Water Quality and Sustainable Development: A Vision for 2030 and Beyond	Jakir Hussain Central Water Commission Ikbal Hussain Public Health Engineering Department (PHED) Laboratory, Govt. of Rajasthan
3.	Assessment of Aquaculture Impact on Shallow Groundwater in the Godavari Delta, Andhra Pradesh	Y R Satyaji Rao, Scientist G, Environmental Hydrology Division, National Institute of Hydrology Y Siva Prasad, Scientist-C, Deltaic Regional Centre, National Institute of Hydrology

4.	Impending Issues of Saline Groundwater in the Aquifers of Navalgund Taluk of Dharwad District, Karnataka	Sushant. S. Navarat[1], Sangita P. Bhattacharjee[2], Jyothi Kumar Nalli[3] [1]Asst. Hydrogeologist, Central Ground Water Board, State Unit Office, Belagavi [2]Scientist-D & OIC, Central Ground Water Board, State Unit Office, Belagavi [3]Regional Director, Central Groundwater Board, South Western Region, Bengaluru
5.	Groundwater Quality Scenario In The Coastal Tract Of Candolim, Calangute And Anjuna Villages In Bardez Taluk Of North Goa District, Goa State	Sangita P. Bhattacharjee[1], Sushant. S. Navarat[2], Jyothi Kumar Nalli[3] [1]Scientist-D & OIC, Central Ground Water Board, State Unit Office, Belagavi [2]Asst. Hydrogeologist, Central Ground Water Board, State Unit Office, Belagavi [3]Regional Director,Central Groundwater Board, South Western Region, Bengaluru
6.	Integrated Watershed Management for Sustainable Development: A Case Study of Kadvanchi Village in Jalana District, India	Rishikesh Sanjay Aher, Pradeep S. Bhalage, Suvidha B. Patil & R. S. Singh Department of Civil Engineering, Hi-Tech Institute of Technology, Aurangabad Rishikesh Sanjay Aher, Pradeep S. Bhalage & R. S. Singh Department of Civil Engineering, Hi-Tech Institute of Technology, Aurangabad, Suvidha B. Patil AISSMS College Of Engineering, Pune
7.	Identifying productive well sites in hard rock terrains using Geophysical Techniques: A case study from Sonbhadra District, Uttar Pradesh	Amitosh Chandra

WC 13: Water Governance and Financing

Effective water governance and the implementation of robust policies in water management are crucial. The climate change and continuous growth of world's population has put significant strain on water resources, resulting in severe repercussions. Water scarcity not only jeopardizes agriculture, the environment, industry, and energy sectors but also impacts society at large. Furthermore, water pollution can irreversibly damage water bodies, rivers, and aquifers, severely disrupting the water ecosystem. During the session, the importance of effective water governance and implementation of robust policies in sustainable water management were covered.

TOPICS:

1. Water Infrastructures — Financing and Operation & Maintenance Models.
2. Role of Policy in Water Security.
3. Convergence of Various Stakeholders in Water Sector.

Date: September 19, 2024 Time: 09:30 to 11:00 Hrs.

Chair: Ms. Sumila Gulyani, Practice Manager-Water, The World Bank

Co-Chair: Shri S S Vaseeharan General Manager, NABARD

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Regulatory Framework and Policy implication for Promoting Sustainable Water Governance and Water Finance in Bharata @2047: Fostering Industry 6.0 and Economic 4.0	Shri Sumanta Bhattacharya
2.	Financing: An Emerging Need for Indian Aging Water Infrastructure	Shri Pramod Narayan, CWC
3.	ADMINISTRATIVE DIVISIONS Revenue Districts to River Basin Districts	Shri Ragul K, IAS Secretary, Labour Department, Government of Sikkim
4.	Water security: Progress, challenges and policy based solutions for India	Shri Nitin Bassi, Senior Programme Lead, Council on Energy, Environment and Water
5.	Water Management in India— From Ancient Community-Based Systems to Colonial Interventions and Modern Strategies	Dr. Harinarayan Tiwari Advisor, PANDT Soft Solutions, Co-Founder, Floodkon Consultants LLP
6.	From Awareness to Action: Improving WASH practices in Tribal Areas through intersectoral Convergence Chhattisgarh, India	Ms. Pallavi Kumar, Deputy Chief of Party, NISHTHA/Jhpiego

7.	Geospatial Decision Support System for Inclusive Planning and Utilization of the Reservoir Water Infrastructure for Sustainable Inland Fisheries Production	Dr. Kanchi Bhargavi, Senior Executive (Technical), National Fisheries Development Board, Department of Fisheries, Ministry of Fisheries, Animal Husbandry & Dairying
8.	Why Ken-Betwa Link is balance between Environment and need of water starved Bundelkhand region	Dr R K Jain, Head, India Water Week Secretariat

Recommendations:

- **Rethink and Strengthen Water Governance**
  - One proposal is to realign governance boundaries to natural river basins /sub - basins/watersheds for better coordination. If not feasible, use River basins/sub-basins/Watersheds as basis for planning and implementation of all water initiatives. Involve all stakeholders in the river - basin/sub basin/watersheds.
  - Involve communities to strengthen accountability of water agencies and enhance ownership of water programs.
  - Strengthen capacity and accountability of water agencies and incentivise them to deliver improved services
  - Use water audit and emerging technologies for monitoring and disclosure of key data. Use technology for improved operations and results from water resources.

- **Water Finance**
  - Governments need to increase spending on water - not only for Capex but also for O&M. Adopt lifecycle approach to financing. Adequate O&M financing can ensure that design life is reached and often extended.
  - Collect some user fees to incentivise responsible use of water (reduced demand of water) and finance O&M
  - Make water agencies bankable through predictable government financing and user charges
  - Use PPPs and Blue and Green credits to increase financing
  - Globally only 2% of water finance is coming from the private sector. This needs to increase dramatically to cover financing needs.

Full Length Papers (WC-13)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Financing: An Emerging Need for Indian Aging Water Infrastructure	Pramod Narayan[1], Bikram Kesharee Patra[2] and, Gulshan Raj[3] [1]Director, Central Water Commission [2]Doctoral Student, Concordia University, Montreal, Canada [3]Chairman, Ganga Flood Control Commission

2.	Regulatory Frameworks and Policy Implications for Promoting Sustainable Water Governance and Water Finance in Bharat@2047: Fostering Industry 6.0 and Economic 4.0	Dr. Sumanta Bhattacharya Research scholar at MAKAUT, and Policy Analyst, M.Tech ,MA in Development Studies, LLB, MA in Security and Defence Law, MA in Economics, MBA DIA&D, DG&GS, PGDEDS, PGDHUR , MPI (Oxford University) ORCID ID: 0000-0003-2563-2787 Bhavneet Kaur Sachdev, Political Science Hons (Calcutta University), MA in Development Studies, MA in Sociology, Post Graduate Diploma In Human Rights, ORCID ID: 0000-0001-9156-0086
3.	Water Management in India—From Ancient Community-Based Systems to Colonial Interventions and Modern Strategies	Pooja Sharma, Anjali Joshi ICFRE–Arid Forest Research Institute, Jodhpur Randhir K. Choudhary Central Water Commission, New Delhi Harinarayan Tiwari PANDT Soft Solutions & FLOODKON, NOIDA
4.	Administrative Divisions Revenue Districts To River Basin Districts	RAGUL K. IAS Secretary, Labour Department, Government of Sikkim
5.	From Awareness to Action: Improving WASH practices in Tribal Areas through intersectoral collaboration	Dr. Purva Jaiswal, Pallavi Kumar & Krithika Murali Jhpiego, New Delhi Pallavi Kumar & Krithika Murali Deputy Chief of Party, NISHTHA, Jhpiego, New Delhi Dr. Purva Jaiswal Program Officer- community engagement and WASH, NISHTHA, Jhpiego, New Delhi
6.	Co-creation in Community-led water conservation through Sustainable partnership with the Stakeholders	V. Venkatesan, Programme Leader, DHAN Foundation

WC-14 Water Governance and Financing

TOPICS:

4. Beneficiaries' Participation in Water Planning and Management
5. Role of Women in Management of Water Resources
6. Social Equity and Inclusion in Water Sector

Date: September 19, 2024 Time: 11:15 to 12:45 Hrs.

Chair: Ms Veena Khanduri, Executive Secretary-cum-Country Coordinator, India Water Partnership (IWP)
Co-Chair: Ms. Anupama Madhok, Director & Editor, Advance Water Digest Pvt. Ltd.
Keynote Speaker : Ms Laura Sustersic, Program Director, GIZ
The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Naganadi River Rejuvenation By Women Workers of Tamil Nadu Women Empowerment Through Capacity Building Initiatives	Mr. Prasanna Prabhu Vyakti Vikas Kendra India- The Art of Living Social Projects
2.	Convergent Action and Community Participation in Water Planning & Management	Arsalan Aarib Imroz State Coordinator – ISA Jal Jeevan Mission, Assam.
3.	Women Leadership for Effective Water Management and Community Resilience: National and International Insights and Practice	Dr. Subha Muthu Kumar S Ayeesha Khanam Urban Practitioner's Programme, Indian Institute for Human Settlements (IIHS)
4.	Towards Effective Governance In Irrigation Management For Enhancing People's Participation	Chandam Victoria Devi North Eastern Regional Institute Of Water And Land Management, Tezpur

Recommendations:

1. Naganadhi River Rejuvenation by Women Workers of Tamil Nadu

- **Community Engagement**: Empower rural women through technical training and leadership roles to ensure long term sustainability of river rejuvenation efforts.
- **Capacity Building**: Provide women with technical skills in water management, enabling them to contribute actively and enhance agricultural productivity.
- **Replication**: Expand the model to other river rejuvenation projects across Tamil Nadu and other states to scale the impact of community-driven water management.
- **Job Creation**: Continue to involve women in water related projects through programs like MGNREGA to provide employment and promote economic independence.

2. **Convergent Action and Community Participation in Water Planning and Management**
   - **Multi-Departmental Convergence**: Foster collaboration between various departments and community organizations to ensure coordinated efforts in water management.
   - **Community Ownership**: Promote community participation through Water Users Committees (WUCs) and Jal Mitras to build local ownership of water resources.
   - **Capacity Building**: Strengthen training programs for local stakeholders to improve the operation and maintenance of Piped Water Supply Schemes (PWSS).
   - **Disaster Resilience**: Focus on building climate-resilient water infrastructures to withstand frequent floods and water-related challenges in Assam.
3. **Women Leadership for Effective Water Management and Community Resilience**
   - **Policy Advocacy**: Encourage policies that integrate women in water management decision-making processes, both at the national and grassroots levels.
   - **Training and Capacity Building**: Focus on building leadership skills among women to promote their participation in community water management projects.
   - **Economic Empowerment**: Develop entrepreneurship opportunities for women in water-related sectors to improve their economic status.
   - **Collaboration**: Foster partnerships between local governments, NGOs, and international organizations to support women led water management initiatives.
4. **Towards Effective Governance in Irrigation Management for Enhancing People's Participation**
   - **Participatory Governance**: Strengthen Water User Associations (WUAs) by decentralizing decision-making and empowering local farmers to manage irrigation systems.
   - **Traditional Knowledge**: Incorporate traditional water management practices, like the Dong Bandh system, into modern irrigation governance to enhance community participation and sustainability.
   - **Financial Sustainability**: Ensure that water cess and levies collected are transparently used for irrigation maintenance and repairs, linking funds directly to water infrastructure projects.
   - **Equitable Water Distribution**: Address water distribution issues, particularly at the tail-end of irrigation systems, to ensure fair access for all farmers.

These recommendations highlight the importance of decentralizing decision-making, fostering partnerships across various levels, and integrating traditional knowledge to enhance the efficiency of modern water governance structures. A particular focus is placed on empowering women and marginalized communities to lead water management initiatives, thereby ensuring equitable access to resources, strengthening disaster resilience, and promoting long term sustainability. The lessons from both modern and traditional systems provide valuable insights for creating inclusive, community-driven approaches that address the complex challenges of water management in India and beyond.

Full Length Papers (WC-14)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Convergent action and community participation in Water Planning and Management An initiative of the Public Health Engineering Department (JJM), Government of Assam in collaboration with UNICEF Assam.	Arsalan Aarib,
2.	Women Leadership for Effective Water Management and Community Resilience: National and International insights and practice	Dr. Subha Muthu Kumar and S Ayeesha Khanam Indian Institute for Human Settlements, Bengaluru
3.	Capacity building training and water literacy programs in water conservation projects	P. Prabhu, N. Gangolli, C. Kuppan, P. Wayal & S. Srivastava Vyakti Vikas Kendra India, Bangalore
4.	Community Participation in Traditional Water Management in Assam	Dr. Luna Moni Das, Assistant Professor (SSc), NERIWALM Dr. Sanayanbi Hodam, Assistant professor (WRE), NERIWALM
5.	Citizen Science for Water Management: Comprehensive Approach to Conserve Ecohydrology of Ahar River Basin	Nidhi Sehrawat, Researcher at DANIDA IWRM Project Udaipur Tanya Issar, Yogita Dashora

6.	The Role of Women in Water Management: Empowering Agents of Change	Blessing Isaiah[1], Abhijeet Bendre, P. E[2] Water Resources and Flooding discipline, Mott MacDonald, Bengaluru [1]Engineer – Hydraulic Modelling, Mott MacDonald Private Limited, India [2]Principal Engineer – Hydraulic Modelling, Mott MacDonald Private Limited, India
7.	Naganadhi River Rejuvenation by Women Workers of Tamil Nadu	C. Kuppan, P. Prabhu & S. Srivastava Vyakti Vikas Kendra India, Bangalore

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WC-15 Water Governance and Financing

TOPICS:

7. Harnessing Traditional Knowledge for Water Conservation.
8. Institutional Water Regulation Mechanism

Date: September 19, 2024 Time: 13:45 to 15:15 hrs.

Chair: Shri G. Asok Kumar, IAS, Water Expert and former DG, NMCG
Co-chair: Dr. Swayamprabha Das, Lead, Policy Planning, Development Alternatives

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	TALAB	Bajranj Lal Jaithu
2.	Necessity of Revival of Step Wells for Water Conservation in India	S. D. Waghmare, Scientist C, Central Ground Water Board, State Unit Office, Pune
3.	Unveiling Ancient Engineering at Devagiri Daultabad Fort, India	R.F.Siddiqui, Hi-Tech Institute of Technology Aurangabad M.S India
4.	Water Governance & Financing	Alexia MICHELS Senior Water Resources Specialist, Asian Development Bank
5.	Harvesting Heritage: A Historical Exploration of Indigenous Water Management and Sustainable Agriculture Through the Case Study of Khazana Well	Prof Kailas Charkha Hi Tech Institute of Technology Aurangabad

Recommendations:

1. Protect, revive, and restore traditional water systems to reduce the risks from climate induced water insecurity, given the urgency of addressing water security and climate resilience has never been more pressing.
2. Establish special Ground Water monitoring mechanism of all the stepwells at a national level.

3. Formalise and establish integrated studies and planning taking into account the 2700 step wells mapped and their aquifer systems.
4. Document and share Traditional Knowledge for efficient water conservation practices around community structures, specially connected with religious places like Temples, Gurudwaras, and others.
5. Promote the association between traditional and modern scientific knowledge to address water related challenges.
6. Restore heritage structures and augment rainwater harvesting and conservation through national campaigns, like 'Catch the Rain', to enable recharging of the groundwater and ensure water security.
7. Ensure community participation at the planning and implementation level, and organise multi stakeholder consultation at all level as part of Government programmes and initiatives.
8. Promote sustainable tourism around stepwells and tradition water bodies to conserve these heritage sites, promote cultural tourism and generate revenue for long term maintenance and support livelihoods of the local community.
9. Scale up the initiatives on transportation of silt by the farmers to their farms from these traditional ponds that improves soil health and productivity.
10. Support and sustain financing for revival and rejuvenation of traditional water structures through innovative financing mechanism for water & biodiversity conservation to achieve the 2030 Agenda.
11. Include key traditional water harvesting structures, from across the country, in the UNESCO heritage list and include in the National Heritage conservation list, as areas of cultural heritage and tourism.

Full Length Papers (WC-15)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Unveiling Ancient Engineering at Devagiri Daulatabad Fort, India	R.F.Siddiqui & Pradeep Bhalage Hi-Tech Institute of Technology Aurangabad
2.	Traditional Water Resource: Talab	Bajrang Lal Jaithu Gavaraja Magazine, Charbhuja Chouk, Ladnun, Rajasthan
3.	Step Wells-Ancient Archaeological Structures For Water Conservation In India	ER. Kirit B. Trivedi, B.E.(Mech.), MBA (Marketing), CDM, M.I.E, F.I.V, Former (D.E.E. (Mech.), Government of Gujarat

4.	Necessity Of Revival Of Step Wells For Water Conservation In India	S. D. Waghmare* & S. S. Hegde** * Scientist "C", Central Ground Water Board, State Unit Office, Pune ** Scientist "D" & Officer-in-Charge (Retired), Central Ground Water Board, State Unit Office, Pune
5.	Harvesting Heritage: A Historical Exploration of Indigenous Water Management and Sustainable Agriculture Through the Case Study of Khazana Well in India	Kailas Charkha, Pradeep Bhalage, Geetanjali Kaushik & Bhgyashri D. Patil Department of Civil Engineering, Hi-Tech Institute of Technology, Aurangabad, Maharashtra Kailas Charkha, Pradeep Bhalage & Geetanjali Kaushik Department of Civil Engineering, Hi-Tech Institute of Technology, Aurangabad, Maharashtra Bhgyashri D. Patil Department of Civil Engineering, MIT School of Engineering and Science, Pune, Maharashtra
6.	Traditional Water Preserving Management Wisdom: A Case Study of Nahare Ambari	Riyazuddin Siddiqui, Pradeep Bhalage, Geetanjali Kaushik & HashmiTahera Department of Civil Engineering, Hi-Tech Institute of Technology, Aurangabad Riyazuddin Siddiqui,Pradeep Bhalage, Geetanjali Kaushik Department of Civil Engineering, Hi-Tech Institute of Technology, Aurangabad Hashmi Tahera Fatima Sidra Academy , Aurangabad, Maharashtra

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WC-16 Water related Disasters and its Management.

Water-related disasters such as glacier lake outburst, floods, droughts, and coastal storms pose significant threats to lives, property, and ecosystems. Effective management of these disasters requires an integrated approach combining risk assessment, preparedness, mitigation, response and recovery. The session delved on such aspects.

TOPICS:

1. **Glacial Lake Outburst Flood Risks and Mitigation**
2. **Challenges in Management of Floods & Droughts**

Date: September 19, 2024 Time: 15:30 to 17:00 Hrs.

Chair: Prof. D.S. Arya, Department of Hydrology, IIT Roorkee
Co-Chair: Sh. D.P. Mathuria, C.E. (POD), CWC

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Glacial Lake Outburst Flood Study and Contingency Plan For Project in Dhauliganga Sub Basin, Uttarakhand, India	Manjusha Mishra (GM, Civil) NHPC Limited
2.	Urban Flood Management in Greater Hyderabad Municipal Corporation Zone IV	R.Venkata Ramana Scientist -E, DRC, NIH , Siddrtha Nagar, Kakinada, AP
3.	Challenges In Management of Floods	M. L. Franklin, Executive Engineer (Lower Godavari Division), CWC & P. Devender Rao, Chief Engineer, NWDA
4.	Government's Initiatives and Policies on Flood Management in country	Rajesh Kumar Sr. Joint Commissioner, Flood Management, DoWR, RD &GR, MoJS
5.	A hybrid framework for improving flood management through medium-range streamflow forecasting model	Ashrumochan Mohanty School of Water Resources Indian Institute Of Technology, Kharagpur
6.	Blue-Green Nature-based Solutions for Climate Resilience Restoration and wise use of wetland ecosystems for climate resilience	Kunal Bharat & Dr Atul Dogra, Advisors, Indo-German Biodiversity Programme, GIZ
7.	Intercomparison of Extreme Value Family of Distributions for Modelling of Annual Maximum Rainfall	N. Vivekanandan Scientist-C, Central Water and Power Research Station, Pune
8.	Evaluation of Structural Flood Risk Reduction measure using HEC-HMS Rainfall-Runoff model for Koyna Dam in Maharashtra state of India	Mr. Sanjay Laxman Doiphode Superintending Engineer, Water Resources Department, Government of Maharashtra.

9.	Need for Proactive Drought Management in India: Tackling Climate Change, Urbanization, and Policy Gaps	Ruchir Patidar, Hydrological Investigations Division, National Institute of Hydrology, Roorkee, Uttarakhand

Recommendations:

1) Conduct Glacial Lake Outburst Flood (GLOF) risk assessment studies for vulnerable catchments considering climate change, and establish early warning systems and contingency plans to minimize impacts.

2) Develop urban drainage coefficients tables for various regions through comprehensive studies to facilitate accurate runoff estimation in urbanized catchments.

3) Enhance flood forecasting and response by expanding hydro-meteorological observation networks, upgrading discharge measuring equipment, integrating upstream flow data, leveraging advanced technologies, and fostering collaborative management practices and communication strategies.

4) Create a mechanism of coordination among different agencies and stakeholders for flood disaster risk preparedness.

5) Organizations should adopt advanced data-driven models (ANN, LSTM, BLSTM) for improved flood forecasting and monitor hydrologic parameters at sub-daily scales to support effective modeling approaches.

6) Mainstream wetlands as natural solutions for climate change mitigation and disaster risk

7) Utilize statistical modeling approaches to compute design rainfall depth, which can serve as input for peak flood estimation when stream flow data is unavailable.

8) Update the National Drought Manual to incorporate climate change assessments and adaptations, ensuring a comprehensive response to drought challenges.

Full Length Papers (WC-16)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Glacial Lake Outburst Flood Study and Contingency Plan For Project In Dhauliganga Sub Basin, Uttarakhand, India	Manjusha Mishra, Sameer Srivastava Design and Engineering Division, C.O, NHPC Ltd, Faridabad
2.	Government's Initiatives and Policies on Flood Management in country	Rajesh Kumar Sr. Joint Commissioner (FM), Department of Water Resources, RD &GR, Ministry of Jal Shakti
3.	Challenges In Management of Floods	Mr. P. Devender Rao[1], Mr. M. L. Franklin[2] Chief Engineer, National Water Development Agency, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti [2]Executive Engineer (Lower Godavari Division), Central Water Commission, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti
4.	Urban Flood Management in Greater Hyderabad Municipal Corporation Zone IV	R. Venkata Ramana[1], Y. R. Satyaji Rao[1], V. S. Jeyakanthan[1] & S. V. Vijaya Kumar [1]Scientist, National Institute of Hydrology, Kakinada. AP

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WC 17 & 18 Water Related Disaster and its Management.

TOPICS:

3. National Disaster Managements Policies and Action Plan.
4. Risk to Water Infrastructure due to Hydrological Changes in view of Climate Change and its Management.
5. Coastal Area Management
6. Contingency Plans and-Post Disaster Management Interventions for Smallholder Agriculture.

Date: September 9, 2024 Time: 13:45 to 15:15 Hrs.

Chair: Shri A. S Goel, Member (RM) CWC

Co-Chair: Dr Pratap Singh, Vice Presiden, RMSI, New Delhi

The Presentations during the session were:

Sl. No.	Topic of Presentation	Presenter
1.	Flood risk assessment at an industrial site under climate change condition	Dr. Pankaj Mani National Institute of Hydrology, Roorkee
2.	Hydro-climatological Assessment of Floods in Krishna River Basin, Maharashtra	Dr. Viraj Loliyana, Sr. Consultant – Agriculture & Allied Sectors Maharashtra Institution for Transformation (MITRA)
3.	Aquifer Setups And Impact of Sea Water Intrusion in the Balasore-Chandipur Coastal Area, Odisha	Sambit Samantaray, CGWB, BBSR
4.	Sea Water Intrusion in Coast of Kerala State	Shibu George, EE & Coordinator Irrigation Department, Kerala
5.	Brahmaputra Flood and Riverbank Erosion Management Project	Vikas Goyal, Asian Development Bank

1. **Trend Analysis of Hydrometeorological Parameters**
Conduct trend analysis for rainfall, temperature, and humidity at both existing and proposed industrial sites.

2. **Impact of Climate Change on Design Floods**
Assess the impact of climate change on design flood levels for various hydraulic structures, including those in industrial areas.

3. **Flood Inundation Modeling**
Perform flood inundation modeling using -high resolution digital terrain data, incorporating existing hydraulic structures for large river basins.

4. **Identification of Vulnerable Coastal Areas**
Identify coastal areas highly vulnerable to seawater intrusion and recommend suitable, cost-effective nature-based solutions to mitigate salinity effects on soil and groundwater.

5. Modeling of Flood and Erosion Processes

Model flood and erosion processes in large river basins like the Ganga and Brahmaputra, and develop mitigation plans to reduce the risks from flooding and sedimentation.

Full Length Papers (WC-17-18)

Sl. No.	Paper Title	Author Name (Smt./Shri)
1.	Flood risk assessment at an industrial site under climate change condition	Pankaj Mani Scientist F, NIH, Patna Chandranath Chaterjee Professor, IIT Kharagpur Rakesh Kumar Professor, SET, Sharda University J P Patra Scientist D, NIH, Roorkee
2.	Hydro-climatological Assessment of Floods in Krishna River Basin, Maharashtra	Srujan G.[1], V. D. Loliyana[2], Rahul D.[1], S. Nambiar[1], Resmi, R.[3] [1]FAMS Design Solution Private Limited, Mumbai [2]Sr. Consultant – Agriculture & Allied Sectors, Maharashtra Institute for Transformation (MITRA), Mumbai [3]NIT Calicut, Kerala
3.	Assessment of Aquifer Setups and Evaluation of Saline Intrusion in Groundwater Resources of Balasore-Chandipur Area, Odisha.	Sambit Samantaray, Binaya Kumar Behera, Prahalad Das, Karnakar Kolipaka, Rajesh Babu

START UP FORUM

START UP FORUM (SUF): Session organised for Startups to pitch their innovative ideas and solutions

Date: September 19, 2024, Time: 15:30 Hrs. to 17:00 Hrs.

Moderator : Hiranaya Tallam & Sayan Mondal, ASCI

Keynote Speaker : Shri Gurjeet Singh Dhillon, Director (AMRUT) MoHUA

Pitching of innovative ideas and solutions by Start-ups in water sector including waste water, flood, smart water tools and technologies, water Supply, R&D etc.

Startup play a dynamic and vibrant role in catalyzing innovative ideas and solutions in any sector order to overcome its myriad challenges, water sector needs many

Start-ups in water sector including waste water, flood, smart water tools and technologies, war Supply, R&D etc. pitch innovative ideas and solutions for inclusive and sustainable water management. AMRUT 2.0 has significantly advanced water and sanitation efforts by focusing on 100% coverage of water connections in statutory towns, ensuring that every household has access to clean and reliable water. It has also prioritized the rejuvenation of urban water bodies, the enhancement of sewage treatment capacities, and the reuse of treated wastewater, addressing the critical needs of urban sanitation.

The session showcased eight innovative solutions supported through the India Pitch Pilot Scale Startup Challenge, focusing on innovations in Integrated Water Resources Development & Management (IWRDM). The themes explored are technologies for improved water conservation, non revenue water management, water quality monitoring and management, smart water infrastructure, water recycling and reuse, rainwater harvesting and groundwater recharge. The session highlighted the importance of integrating technology, entrepreneurship and innovative solutions in addressing India's water challenges. During t he session, the potential impact of these innovations on various aspects of water resource management, including water conservation, quality management, distribution and efficient utilisation were also explored.

Sl. No.	Topic of Presentation	Presenter
1.	Startup Forum – Smart Water Tools & Technologies	WASH
2.	Robotics & Digitization of Assets for Water & Sanitation Technology partner for City's water sanitation needs	Shri Prabhakaran Shri Divanshu, CEO and Founder, Solinas Integrity Pvt. Ltd.
3.	WASH Startups Acceleration Program	Shri Giridharan, CEO, Smart Terra
4.	Kristnam Shaping Water	Shri Vinay Chataraju, Co-Founder & Director, Kritsnam Technology Pvt. Ltd.
5.	Urdhvam Environmental Technologies Pvt. Ltd. A Groundwater Sustainability, Technology & Products Company Recharging & Reviving Depleting Groundwater Resources	Shri Rahul Bakare, CEO, Urdhavan
6.	Combining Nature Intelligence x Artificial Intelligence to de-risk global waterscapes	Shri Mohammad Aatish Khan, COO, Co-Founder & Director, NatureDots Privet Limited
7.	Solution: Create a New Water Source Nature Based Technology For Potable Water Recovery From Sewage	Smt. Smita Singal, Founder and Director, Absolute Vermi-Filter Pvt. Ltd.
8.	Digital O&M at scale for treatment assets	Smt. Mansi Jain, CEO, DigitalPaani
9.	Rainwater/Stromwater Harvesting Solutions	Shri Ankit, Founder, RETAS
10.	Solar Water Pump Sizing Tools Tools	Shri Anuj, GIZ

YOUTH FORUM

Role of Water in Socio-economic Development of the Country
An exclusive event for school children focusing on efficient use of water, water recycle & reuse

STUDY TOUR

HIGHLIGHTS
OF THE EVENT

Inaugural


Partnerships and Cooperation for In
Water Develo nt and ager
17-2 TEMBER


THE PRESIDENT


Water Development and Management
17-20 SEPTEMBER 2024
BHARAT MANDAPAM, NEW DELHI


C R PATIL
THE PRESIDENT
RAJ BHUSHAN CHOUDHARY
DEBASHREE MUKHERJEE


INDIA WATER WEEK 2024


17-20 SEPTEMBER 2024
BHARAT MANDAPAM, NEW DELHI
VINI MAHAJAN
C R PAATIL
THE PRESIDENT
RAJ BHUSHAN CHOUDHARY

Cultural Function

Exhibition


8th INDIA WATER WEEK - 2024


HIMACHAL PRADESH
Model water supply scheme at high altitude


WATER RESOURCES DEPARTMENT,
GOVT. OF ANDHRA PRADESH


VASSAR LABS
VASSAR LABS
Vassar


MINISTRY OF JAL SHAKTI
BIO GAS PLANT


IRRIGATION & WATER RESOURCES DEPARTMENT
HARYANA

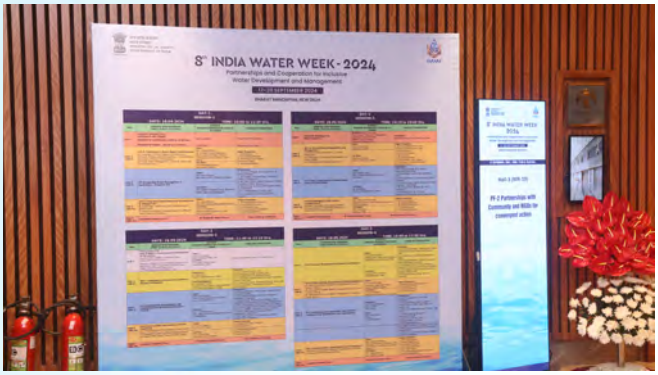

8th
INDIA WATER WEEK
2024
EXHIBITION
HALL 12A

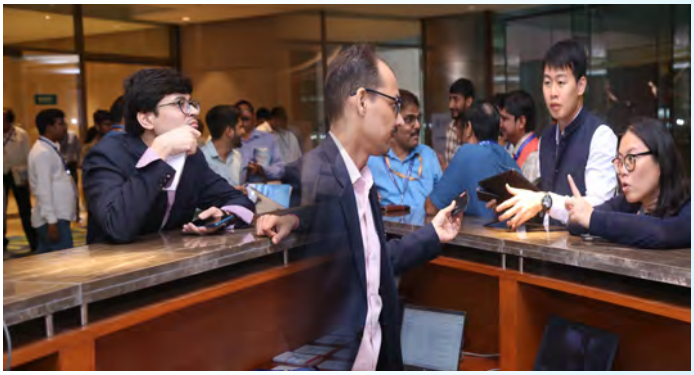

8th INDIA WATER WEEK-2024


EYENETAQUA
JALCONSERVE


SWAN

Conference






SMART WATER CONTROL SOLUTIONS
BY BERMAD INDIA
BERMAD
WATER IS LIFE
INDIA WATER WEEK
2024
BHARAT MANDAPAM, NEW DELHI


PANEL
DISCUSSION 1:


Alluvium Group
in India
India Water Week 2024
Australia Country Session
INDIA WATER WEEK
2024
BHARAT MANDAPAM, NEW DELHI


INDIA WATER WEEK
2024
6th India-EU Water Forum

Valedictory

Newsletters

NEWS LETTER
Pre-Event
Volume-1
17 September, 2024

जल शक्ति मंत्रालय
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
भारत सरकार
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
GOVERNMENT OF INDIA
सत्यमेव जयते

IWW

8th INDIA WATER WEEK 2024

Partnerships and Cooperation for Inclusive Water Development and Management

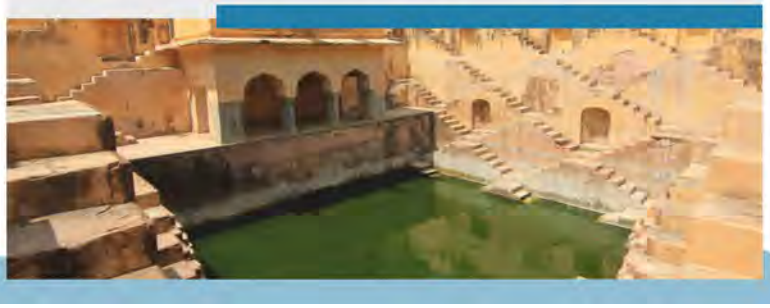
17-20 SEPTEMBER, 2024

BHARAT MANDAPAM
NEW DELHI

That sounds like an exciting and impactful event!

That sounds like an exciting and impactful event! The 8th edition of **India Water Week-2024** is set to be a significant gathering, bringing together a diverse range of stakeholders to discuss and advance water resource management. With a focus on **"Partnerships and Cooperation for Inclusive Water Development and Management,"** the event will likely generate valuable insights and foster collaborations.

The inclusion of various programs like conferences, exhibitions, seminars, panel discussions, cultural program and study tours will provide ample opportunities for networking, knowledge exchange, and showcasing innovations. The presence of global decision-makers, experts, and businesses at Bharat Mandapam from 17-20 September 2024 in New Delhi will certainly enhance the event's impact.



HOW THE CONCEPT OF INDIA WATER WEEK WAS EVOLVED

India has emerged as one of the fastest growing economies in the world and is expected to be one of the top three economic powers over the next 10-15 years. To fuel this growing economy, all engines of growth should work in full force. On the other hand, the most precious natural resource required for human consumption as well as for agricultural and industrial revolution – water, is rapidly becoming a limited resource. Not only India, every part of the world is suffering from a potential water crisis, due to enormous exploitation and misappropriation of water. Droughts and floods are increasingly becoming lived realities of millions of people worldwide. Water security is crucial for the continued existence of all the living-systems in longevity. Its sustainable and equitable distribution is decisive for a peaceful and stable world-order. When all the communities, regardless of religion, class, sect, caste, or gender, have an equal access to water, every member of the society can benefit and create an impact. Lack of such policies can lead to a bleak future for humanity.

To address these enormous challenges, the India Water Week was conceptualised as a novel concept by the Ministry of Jal Shakti, Department of Water Resources, River Development & Ganga Rejuvenation, Government of India, intended to begin regular and systematic discussion, and talks with eminent stakeholders through seminars, exhibition and other parallel sessions aimed at building public awareness, getting support to implement key strategies for conservation, preservation and optimum use of available water. The themes of its previous editions were:

- **1st India Water Week 2012:** Water, Energy and Food Security: Call for Solutions
- **2nd India Water Week 2013:** Efficient Water Management: Challenges and Opportunities
- **3rd India Water Week 2015:** Water Management for Sustainable Development
- **4th India Water Week 2016:** Water for All: Striving Together
- **5th India Water Week 2017:** Water and Energy for Inclusive Growth
- **6th India Water Week 2019:** Water Cooperation – Coping with 21st Century Challenges.
- **7th India Water Week 2022:** Water Security for Sustainable Development with Equity.

CURRENT EDITION

IWW 2024 The 8th India Water Week 2024 is being organised by the Ministry of Jal Shakti from September 17-20, 2024 at the Bharat Mandapam, New Delhi., Hon'ble President of India Smt. Droupadi Murmu will inaugurate the event on September 17, 2024 in the august presence of Shri C. R. Paatil, Hon'ble Union Minister of Jal Shakti, and Shri Raj Bhushan Choudhary, Hon'ble Ministers of State for Jal Shakti; and Shri V. Somanna, Hon'ble Minister of State for Jal Shakti.The valedictory function of IWW 2024 Secretary, Department of WR, RD&GR, will deliver the welcome address on September 19, 2024, followed by a brief report and important recommendations emerging from IWW 2024 by Additional Secretary, Department of WR, RD&GR; Shri C. R. Paatil, Hon'ble Minister of Jal Shakti; and by the Chief Guest. The event will have numerous sessions focussing on key government initiatives as well as water leaders of various countries sharing their perspectives on the water sector is a valuable opportunity to understand diverse approaches, challenges and solutions regarding water

management, conservation, and sustainability. Highlighting theme of IWW 2024, exchange of knowledge can help refine future policies, scale up successful models, and inspire new approaches to tackling water- related challenges globally. Understanding the emerging trend for sustainable water infrastructure, smart water supply solutions and cutting-edge sewage treatment plants, Exhibitions will have high-tech solutions and technologies on display from countries like Australia, Bangladesh, Canada, Colombia, The Democratic Republic of Congo, Denmark, Germany, Ghana, Jordan, Nepal, Nigeria, Portugal, Rwanda, Singapore, Sri Lanka, Sudan, Uganda, the UK, and the USA. The leading show for water will showcase an extensive array of water solutions from national and international water companies in the designated exhibition space; and will host 5000+ delegates from around the world in parallel events and conference sessions. The four-day mega event is being held under the patronage and guidance of Shri C. R. Paatil, Honourable Minister, Ministry of Jal Shakti; Shri Raj Bhushan Choudhary, Honourable Minister of State, Ministry of Jal Shakti; and Shri V. Somanna, Honourable Minister of State, Ministry of Jal Shakti.

PREVIOUS EDITION:

7th INDIA WATER WEEK 2022

PREVIOUS EDITION: 7th INDIA WATER WEEK 2022The 7th India Water Week, held from 1-5 November 2022, focused on the theme "Water Security for Sustainable Development." The event was organized by the Ministry of Jal Shakti in New Delhi and aimed to address critical water-related issues through various sessions and activities. The 7th India Water Week was graced and inaugurated by Hon'ble President Smt. Droupadi Murmu, in the august presence of Hon'ble Governor, Uttar Pradesh Smt. Anandiben Patel, Hon'ble Chief Minister, Uttar Pradesh, Shri Yogi Adityanath, Hon'ble Union Minister of Jal Shakti Shri Gajendra Singh Shekhawat, Hon'ble Ministers of State for Jal Shakti Shri Prahlad Singh Patel, and Shri Bishweswar Tudu at India Expo Centre, Greater Noida on 01.11.2022. Hon'ble President of India, Smt Droupadi Murmu, praised the initiative of Ministry of Jal Shakti in safeguarding precious water. Mentioning water as a vital resource for life, she discussed the relevance of saving water for a future-secure Nation. In her inspirational address to the conclave, she accentuated that these five daylong events will embrace key players and address the issue of water sustainability. Hon'ble Governor of Uttar Pradesh, Smt. Anandiben Patel, stated that we need to march ahead in the field of water conservation, and make sure that the future of our children is water secured. Hon'ble CM of Uttar Pradesh, Yogi Adityanath, graced the event with his esteemed presence and praised the successful commencement of the 7th India Water Week - 2022. With his valuable insights, he enlightened and motivated the arena towards water security. He reverberated the noble message of 'Jal Hai Toh Jeewan Hai' and mentioned that State of UP has an adequate water supply of ground and surface water. Here's a brief overview of what the event included:

KEY HIGHLIGHTS:

- The event featured a series of conferences and seminars where experts and stakeholders discussed topics related to water security, sustainable development, and innovative water management practices.
- An extensive exhibition showcased technologies, solutions, and products related to water management, providing a platform for businesses and organizations to display their work and interact with potential partners.
- Various panel discussions and side events provided platforms for in-depth debates and knowledge sharing on specific water-related issues and solutions.
- The event included cultural performances and programs, which added a vibrant element and highlighted the importance of water in cultural contexts.
- It provided ample opportunities for networking among international and national delegates, experts, researchers, and policymakers, facilitating potential collaborations and partnerships.
- Discussions covered a range of topics including integrated water resources management, water conservation, climate change impacts on water resources, and innovative technologies for water treatment and supply.

The event successfully brought together a diverse group of participants to address water-related challenges and explore sustainable solutions, setting the stage for future advancements in water resource management.

THE ORGANISING PARTNERS

The IWW - 2024 will be organised by the DoWR, RD & GR, Ministry of Jal Shakti, in association with Nodal Ministries/Departments viz. Department of Drinking Water & Sanitation, Ministry of Environment, Forest & Climate Change, Ministry of Power, Ministry of Agriculture & Farmers' Welfare, Ministry of Earth Sciences, Ministry of Housing and Urban Affairs, Ministry of Rural Development, related State Government departments, associated expert organizations, key international bodies, private and public business groups etc.The IWW - 2024 has invited some of the important organisations actively involved in the water sector with immense expertise to identify and bring focus and deliberations on current topics as knowledge partner. The International Commission on Irrigation and Drainage (ICID), The World Bank, Asian Development Bank (ADB), India Water

Foundation (IWF), World Water Council (WWC), International Water Management Institute (IWMI), International Water Association (IWA), University of Chicago, Council on Energy, Environment, and Water (CEEW), University of Glasgow, The Danish Environmental Protection Agency, Indian Environment Law Organisation, United Nations of Project Services (UNOPS), IIT Roorkee, India Water Partnership (IWP), Singapore's Water Exchange, Social Alpha, Jain Irrigation, Ion Exchange Limited, JSW, CII-Triveni Water Institute, DIAGEO India, Tata Power, Xylem Water Solution India, Blueverse India Pvt. Ltd, WELL Labs, ICAR-IARI, NUIA, NIH, CWC, NMCG, State Government Organisations, NDMA, ASSOCHAM and Indian Chamber of Commerce (ICC) agreed to join as Knowledge Partners for the 8th India Water Week-2024.

Exhibition

There will also be an exhibition running in parallel supporting the theme and showcasing the technologies, latest developments, and available solutions. It will provide a unique networking opportunity to the exhibitors for displaying products and services to the practicing water resource professionals from participating countries. Exhibitors will also have a unique opportunity to spread their network in this region and find new joint ventures and profit from the growing business in this emerging and technologically important area. Business firms will have the opportunity of direct interactions with thousands of potential clients, highly qualified visitors including decision makers, enormous PR and promotional opportunities, joint ventures, expanding their business in the rapidly growing Indian water market and to increase brand visibility/image. The 8th edition of India Water Week will host a plethora of exhibitors who will showcase their latest water & wastewater treatment and conservation products and project capabilities for policymakers and officials from Municipal & Government sector, Plant Operators & Environment Engineers, Consultants, Project Heads, Investment & Funding Agencies, and EHS Managers & Operations Heads of various manufacturing industries to update them with the latest technologies entering the water market for Non-Revenue Water (NRW) management, irrigation systems, water supply & distribution, Sewage Treatment Plant (STP)/ Wastewater Treatment (WWTP)/ Effluent Treatment Plant (ETP), and much more.

What to expect this year?

The IWW - 2024 is being organized with a multi-disciplinary conference and a parallel running exhibition with sundry ideas, technologies, and solutions, focusing on "Partnerships and Cooperation for Inclusive Water Development and Management". The event will be organized at Bharat Mandapam, Pragati Maidan, India Trade Promotion Organisation (ITPO), New Delhi with over 5,000 delegates from around the globe, 500 more than the previous delegate footfall. The exhibition area at Bharat Mandapam, Hall No. 12A, Pragati Maidan, New Delhi shall also cover 4800 sq. m. This is an excellent opportunity for innovators, national and international water associations, water companies, and end-user industries and network with enterprise partners. The four-day mega show will be a perfect mix of knowledge-oriented insights, serious business discussions and a gamut of beautifully crafted seminars and enriching sessions on water & wastewater.

The 8th India Water Week 2024 will have the following highlights:

- **An international forum** hosting a **multi-disciplinary** dialogue
- **Interaction and networking** with the Government leaders, Industry leaders, Scholars, Planners, Innovators, and decision-makers
- **Inaugural, Valedictory and Ministerial Plenary** where Government leaders will share their vision and perspectives on water sector
- **Global Water Leaders' Plenary** where global experts will share their insightful and thought-provoking ideas for water sector
- **Water Leaders' Forum** with 9 sessions covering all major thematic sectors
- **Country Forum on the sidelines** with several countries including Denmark, Israel, Australia, Singapore, India-EU hosting their sessions
- **Practitioners' Forum** with 6 sessions highlighting the best practices • Water Convention, with 18 sessions where papers will be presented on various themes
- **Startup Forum** where startups will get an opportunity to pitch for their ideas
- **Exhibition** excellent opportunity for businesses

Overall, IWW 2024 will be a comprehensive event aimed at advancing water management practices through collaboration, innovation, and strategic partnerships. It will help the visitors and delegates to stay on top of the latest updates in the water industry's policies, regulations and explore innovative water solutions.

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NEWS LETTER

Volume-2
17 September, 2024

Day-1

जल शक्ति मंत्रालय
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
भारत सरकार
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
GOVERNMENT OF INDIA

सत्यमेव जयते

IWW

The President of India, **Smt. Droupadi Murmu,** graced the event of the **8th India Water Week**

with her esteemed presence, underscoring the significance of water conservation and sustainable management in our country.

"Partnerships and Cooperation for Inclusive Water Development and Management"

The 8th India Water Week was graced and inaugurated by Hon'ble President Smt. Droupadi Murmu, in the august presence of **Hon'ble Union Minister of Jal Shakti Shri C. R. Paatil** and **Hon'ble Minister of State for Jal Shakti Shri Raj Bhushan Choudhary** at Bharat Mandapam, New Delhi on 17.09.2024 alongside **Ms. Debashree Mukherjee, Secretary,** Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti, and **Sh. Kushvinder Vohra, Chairman** of the Central Water Commission. **Ms. Vini Mahajan, Secretary,** Department of Drinking Water & Sanitation, Ministry of Jal Shakti welcomed all the dignitaries for the 8th India Water Week.

The event commenced with the auspicious ceremony of **"Jal Bharo"** by our **Hon'ble President Sh. Droupadi Murmu** and Dignitaries present in the dias by pouring water into the vessel, strengthening the vision of Jal Shakti. This ceremony symbolized the immense importance of water conservation. Hon'ble President of India, Smt Droupadi Murmu, praised the initiative representing the Vision of Jal Shakti Ministry—water conservation and management. Mentioning water as a vital resource for life, she discussed the relevance of saving water for a future-secure Nation. In her inspirational address to the conclave, she accentuated that these four daylong events will embrace key players and address the issue of water sustainability. **Hon'ble President also quoted ancient Vedic wisdom to emphasize the timeless importance of water conservation, drawing upon verses that reflect the sacredness of water and its vital role in sustaining life.**

Hon'ble Minister of Jal Shakti, Shri C. R. Paatil, addressed the august audience, and emphasized the needs for collective efforts to address the global water crisis. The event of India water week event has established itself as a leading platform for water sector stakeholders, offering valuable insights into the management and development of water resources. He stated that the issue of water conservation, its management is a holistic and global effort. Further, he added that together, we can make swift and significant strides towards a water-secure future.

The theme of this year's event, **"Partnerships and Cooperation for Inclusive Water Development and Management,"** is a call for action to work together across sectors and regions to address the growing demand for water, ensure its sustainable management, and guarantee equitable access to this precious resource.

Ms. Ujiaro Bai from Madhya Pradesh and **Ms. Lakemen Nongkhlaw** from Meghalaya shared their inspiring stories. These women have taken the initiative to bring change and inspire others to take up the cause of water conservation.

MINISTERIAL PLENARY SESSION

Ministerial Plenary session was held under the chairmanship of Shri C. R. Paatil, Hon'ble Union Minister for Jal Shakti; H.E. Mr. Morten Bødskov, Hon'ble Minister of Industry, Business and Financial Affairs, Denmark; H. E. Mr. Collin David Croal, Hon'ble Minister of Housing and Water of the Co-operative, Republic of Guyana; H. E. Mr. Vangelis Peter Haritatos, Hon'ble Deputy Minister of Lands, Agriculture, Fisheries, Water and rural development, Zimbabwe; Hon Mathew Andrea Kundo (MP), Deputy Minister of Water, Tanzania took part in the session and shared their country perspectives on water sector management. This was unique opportunity to hear directly from global leaders about the challenges and solutions they are adopting in the context of water management in their respective countries.

Also, in the Ministerial Plenary, Hon'ble Ministers of Water Resources of States from Telangana, Goa, Manipur and Chhattisgarh joined to share their states perspectives on the water sector.

India Water Week 2024 is not just a conference; it's a platform that encourages collaboration, innovation, and sustainable water management solutions that will help pave the way for a more inclusive and cooperative approach toward water development.

India's Minister of Jal Shakti (Water Resources) convened a high-level meeting during India Water Week 2024, bringing together Ministers of Water Resources from Denmark, Guyana, Tanzania, and Zimbabwe. The meeting aimed to foster international collaboration on water management challenges, exploring opportunities for knowledge exchange and joint projects. Discussions centered around themes of sustainable water management, climate-resilient water infrastructure, and innovative technologies for water conservation and treatment. This collaborative effort underscores the importance of global partnerships in addressing the multifaceted issues facing the water sector and securing a water-secure future for all.

Global Water Leaders Plenary session was also held under the chairmanship of Secretary, DoDWS on the theme of INDIA WATER WEEK 2024 - World Perspective and Country Perspective. Representative of IWMI, ICID, WWC, WB, University of Chicago, IWA, CWC, ADB, University of Glasgow, Water Attachee- Israel, Danish Environmental Protection Agency and many organisations participated.

Country Forum also held on the sidelines of India Water Week organized by various countries.

Practitioners' Forum gave practitioners and experts an opportunity to share their experiences in implementing water sector programs and policies through real-world case studies and best practices, presented the lessons learned and innovative approaches to solving water-related challenges.

Thereafter, Hon'ble Union Minister Shri C. R. Paatil Ji inaugurated the **Exhibition** at the 8th edition of India Water Week 2024 in the gracious presence of H. E. Mr. Collin David Croal, Hon'ble Minister of Housing and Water of the Co-operative, Republic of Guyana; H. E. Mr. Vangelis Peter Haritatos, Hon'ble Deputy Minister of Lands, Agriculture, Fisheries, Water and rural development, Zimbabwe; Hon Mathew Andrea Kundo (MP), Deputy Minister of Water, Tanzania. His presence greatly elevated the excitement and significance of the event, highlighting the theme and showcasing cutting-edge technologies and solutions relevant to water management. Accompanied by key delegates, senior officers of Ministry and involvement underscored the importance of the exhibition and its role in advancing discussions and innovations in the field.

The cultural program was quite impactful! The involvement of Hon'ble Union Minister Shri C. R. Paatil adds significant weight to the message being conveyed. The way the program highlighted the connection between water and cultural identity, and underscored the importance of rainwater, cleanliness, and ecosystem conservation is crucial. Such events not only entertain but also educate and inspire action on pressing issues like water conservation. It's great to see that the performance was able to deliver such a powerful and timely message.

राष्ट्रीय जल विकास अभिकरण
NATIONAL WATER DEVELOPMENT AGENCY
जलमेव जीवनम्

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NEWS LETTER

Day-2

Volume-3

18 September, 2024

सत्यमेव जयते

जल शक्ति मंत्रालय
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
भारत सरकार
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
GOVERNMENT OF INDIA

IWW

YOUTH FORUM ATTENDED BY LARGE NUMBER OF YOUNG MINDS

The **8th India Water Week-2024** kicked off on September 17th, showcasing an impressive turnout and enthusiasm among participants. As the second day began, the energy continued with a significant number of attendees arriving at the venue. A key highlight of the event was the active participation of multiple stakeholders, fostering a collaborative environment. Delegates engaged in a series of insightful sessions, exchanging viewpoints and brainstorming shared ideas and solutions to address pressing water-related challenges. This spirit of cooperation and dialogue is crucial for advancing sustainable water management practices in India.

Attraction of the Day 2 is a **Youth Forum** especially planned for our nation's young intellects. The session was graced by esteemed presence of **Hon'ble Minister of State for Water Resources, Sh. Raj Bhushan Choudhary** who exhorted the young leaders to become water stewards; responsible for effective water management in their communities and beyond. About 200 students from different schools participated with enthusiasm and about 20 students delivered speeches on topic, " Role of water in socio-economic development of country".

THE AREAS OF FOCUS WERE:

- Integrated Water Management in Agriculture
- Challenges in Water Sector Infrastructure
- Role of Water in Socio-economic Development of the Country
- Integrated Surface and Ground Water Storage Management
- Springshed Management and Conservation Initiatives for Hilly States
- Ground Water Sustainability and Management
- Open, Integrated and Shared Water Data and Informatics
- Challenges in Water Sector Infrastructure
- Demand Management and Water Use Efficiency
- Risk and New Approaches to Climate Resilience
- Partnership and Cooperation with NGOs for inclusive Water Development and management
- Ground Water Sustainability and Management

COUNTRY FORUMS

A joint High level Plenary session for the **6th India-EU Water Forum** conducted in the august presence of Hon'ble Ministers of State for Jal Shakti Shri Raj Bhushan Choudhary. The session highlighted the cooperation between the EU and Government of India on water management within the framework of the India-EU Water Partnership. The 6th India – EU Water Forum aimed to explore relevant areas in water sector as well as to put light on developments of India-EU Water Partnership to which the governmental representatives, experts, researchers, businesses, and other stakeholders can contribute and benefit from.

THE COUNTRY FORUM

The Country Forum with **Israel session** aims to explore and discuss the latest advancements, policies, and trade opportunities in water management technologies, specifically focusing on sustainable agriculture. This session provided a platform for stakeholders to share innovative solutions and best practices, highlighting Israel's expertise in efficient water use and agricultural sustainability. This aims to bring together key stakeholders including government representatives and industry leaders to share insights, identify collaborative opportunities and address challenges in the field of desalination water quality monitoring and drip irrigation.

Simultaneously, **country forum hosted by Australia** took place, moderated by Australian Trade and Investment Commission. This session provided insights into Australia's approaches to water management and sustainable practices. The exchange of knowledge aimed to enhance sustainable water management practices for both countries.

Country Forum by Denmark, Singapore, Guyana, Zimbabwe, Indonesia, Morocco, Cambodia

Representatives from Denmark, Singapore, Guyana, Zimbabwe, Indonesia, Morocco, and Cambodia shared insights on their unique water management challenges and strategies. Overall, while each country faces distinct issues, they share a commitment to enhancing water efficiency and sustainability through collaborative efforts and knowledge sharing.

Water Leader Forum:At the Water Leaders Forum, presentations from national and international experts from the public and private sectors, policy makers, research and academia, multilateral development institutions, and the non-governmental sector. These experts deliberated on various themes and sectors of water management, providing insight into some of the most pressing water-related issues. Two sessions conducted today on topics Integrated Surface and Ground Water management and Demand Management and Water Use Efficiency. These sessions aimed to raise awareness of the critical challenges in water management and efficiency, fostering discussion on potential solutions and collaborative efforts.

Three sessions of Practitioners' Forum were also held today with experts sharing their experiences and lessons learnt in integrated water management in agriculture, springshed management and conservation initiatives for hilly states during implementation of schemes in water sector. These sessions witnessed an enthusiastic participation from States, sharing of data/information, partnership & co-operation with NGOs etc.

WATER CONVENTION (Paper Presentations)

Water Convention (Paper Presentations)The Water Convention showcased a series of paper presentations by authors of shortlisted papers, covering various sub-themes and topics related to water management. These presentations offered a diverse and comprehensive perspective on the future of water management, featuring contributions from global leaders, policymakers, researchers, practitioners, and young innovators. The breadth of ideas and insights shared during the convention underscored the collaborative efforts needed to tackle water-related challenges and promote sustainable practices worldwide. Participants engaged in meaningful discussions, exploring innovative solutions that could shape the landscape of water management in the years to come.

Secretary, DoWR, RD & GR, Smt. Debashree Mukherjee was amongst several dignitaries visiting various stalls in the **exhibition showcasing innovative water solutions**. Smt. Mukherjee interacted with the media also emphasizing the importance of sustainable water management. The exhibition of the event continued to witness significant footfall highlighting the high level of interest amongst the visitors

INTERNATIONAL WASH CONFERENCE AT 8th INDIA WATER WEEK 2024 HIGHLIGHTS:

Insightful Discussions were held on key themes Water Disinfection Technology, Community Engagement, Impact Assessment of JAL JEEVAN MISSION, Operation and Maintenance, Capacity Building and Grey Water Management .

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NEWS LETTER
Volume-4
19 September, 2024
Day-3

सत्यमेव जयते

जल शक्ति मंत्रालय
जल संसाधन, नदी विकास और गंगा संरक्षण विभाग
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DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
GOVERNMENT OF INDIA

IWW

VALEDICTORY SESSION of 8th India Water Week-2024

The Valedictory session of **"8th India Water Week"** was graced by the auspicious presence of **Hon'ble Union Minister of Jal Shakti Shri C. R. Paatil, and Hon'ble Minister of State for Jal Shakti Shri Raj Bhushan Choudhary** at Bharat Mandapam, New Delhi on 19.09.2024. **Smt. Debashree Mukherjee, Secretary** of the Department of Water Resources, River Development, and Ganga Rejuvenation, Ministry of Jal Shakti, warmly welcomed all dignitaries and audiences to the 8th India Water Week valedictory session. Her opening remarks emphasized the importance of collaboration and innovation in addressing water-related challenges in the country.

Hon'ble Minister of Jal Shakti Shri C. R. Paatil, during his address, commended the theme of IWW-24, **"Partnerships and Cooperation for Inclusive Water Development and Management."** He emphasized the vital role of collaboration in tackling the complex challenges associated with water resource management. By fostering partnerships, we can ensure a more equitable and sustainable approach to water development, ultimately benefiting communities and ecosystems alike. His insights underline the necessity of collective efforts to achieve effective and inclusive water solutions.

The session commenced with the National Anthem sung by brilliant school students.

VALEDICTORY SESSION: Brief Report

The brief of the **8th IWW 2024** was presented by **Shri Rakesh Kumar Verma, Additional Secretary, DoWR, RD &GR, Ministry of Jal Shakti.** He also enumerated various important recommendations that emerged out of the 8th IWW 2024 on the various facets of water sector viz. Collaboration & Cooperation for Water Security, Integrated Water Resources Development & Management, Challenges in Water Sector Infrastructure, Risk and New Approaches to Climate Resilience, Groundwater Sustainability and Management, Water Governance and Financing, Water related Disasters and its Management etc.

The 8th India Water Week commenced on September 17th with great enthusiasm and energy. The event was successfully organized by the Department of Water Resources, River Development and Ganga Rejuvenation, under the guidance of the **Sri C. R. Paatil, Hon'ble Minister of Jal Shakti,** in collaboration with various International Partner countries and organizations. The Hon'ble President of India inaugurated the event, expressing confidence that the discussions during the 8th India Water Week will benefit from the exchange of ideas and technologies across the globe. The event has been marked by significant knowledge sharing. The presence of the Hon'ble President and other distinguished guests at the opening underscored the critical importance of water resource management and conservation. The Plenary Session was a great success due to presence of eminent water experts and dignitaries from Denmark, Guyana, Tanzania, Zimbabwe and other Countries. A standout feature of the event was the success stories shared by the two water warriors during inaugural session. During the Country Forum held alongside IWW 2024, partner countries convened sessions that highlighted opportunities for cooperation and collaboration in the water sector between governments and businesses. A notable highlight of this mega event is the 'Start-Up Forum,' where start-ups have the opportunity to pitch their innovative ideas and solutions in the water sector.

HIGHLIGHTS

Released of publications/Launch of Portal:

1. **E-Launch of Bhu-Neer Portal of CGWA for Ground Water Regulation.**
2. **National Register of Major and Medium Irrigation Projects in India.**
3. **Assessment of Water Resources in India.**
4. **Compendium of Sedimentation of Reservoirs in India.**
5. **Release of Coffee Table Book on Heliborne Survey conducted by CGWB.**

Awards for Exhibition under various categories:

1. **Category I** - Best Central Ministry/Organizations- **CWPRS, Pune**
2. **Category II** - Best State Governments- **Kerela**
3. **Category III** - Best Industry - **Ionexchange India ltd**
4. **Category IV** - Best Startup- **Blueverse India Pvt ltd, Mumbai, Maharashtra**

WATER LEADER'S FORUM

Seven Different sessions at **Day-3 on Water Leaders' Forum** covering important water themes on Partnerships for Accelerating Innovation in Water Sector, Integrated Flood Management, Sustainable Water Management for Industry and Businesses, Partnerships for Climate Action in Water Sector, Partnership and Co-operation for Integrated Water Resources Management, Public Private Partnerships in Water Sector and Circularity in Wastewater Management by experts from industry, public sector, policy making, research, academia, and NGOs—come together to share insights and collaborate. This kind of multidisciplinary approach can foster innovative solutions and drive impactful discussions on important issues.

Two **Sessions of Practitioners' Forum** were held today on the topics Achieving universal access to drinking water in rural areas and Synergizing actions for ecological sustainability and human wellbeing with experts sharing their experiences and practical lessons.

WATER CONVENTIONS

Further, also seven sessions of **Water Conventions** were a dynamic platform for dialogue and collaboration. All sessions dedicated to this vital topic, the involvement of diverse stakeholders, including global leaders, policymakers, researchers, practitioners, and young innovators, likely enriched the discussions. This multifaceted approach not only highlighted current challenges in water management but also fostered innovative ideas for the future. Engaging young innovators, in particular, can bring fresh perspectives and solutions that address both traditional and emerging water issues. Recognizing the significance of women's contribution, the Government of India has undertaken various initiatives to enhance their participation in water management was one of the key topics in Water Conventions. Women play a crucial role in the management of water resources, particularly in rural areas, where they are primary users and managers of water for household and agricultural purposes. Deliberation aimed at integrating women into Water User Associations (WUAs) and empowering them through self-help groups (SHGs) have proven to be effective in improving water governance.

START-UP FORUM

A big attraction of Day -3 was **Startup Forum** which is a dynamic platform for innovative thinkers and private entrepreneurs in the water sector who presented Smart water tools and technologies; showcasing cutting-edge solutions across a variety of crucial areas of water sector. In all nine startups presented their innovative solutions in the water sector.

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Media COVERAGE

Research Unit
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Government of India

India Water Week 2024

A Global Conclave for Water Solutions

September 21, 2024

Overview

The 8th edition of **India Water Week (IWW) 2024** was held from **September 17-20, 2024**, at the **Bharat Mandapam in New Delhi**. Organized by the Ministry of Jal Shakti, this prestigious international event has established itself as a key platform for collaboration in water resource management. The event was inaugurated by the **President of India, Smt. Droupadi Murmu,** alongside **Union Minister of Jal Shakti, Shri C. R. Paatil, and Minister of State, Shri Raj Bhushan Choudhary.**

With participation from global water experts, government leaders, and private-sector representatives, the event aimed to address the critical challenges of water management, foster innovation, and promote sustainable water practices.

Theme and Focus

The theme for India Water Week 2024 was **"Partnerships and Cooperation for Inclusive Water Development and Management."** This theme underscored the importance of cross-sectoral and international collaboration to address the 21st-century's growing water challenges and the need for integrated efforts in water conservation, management, and equitable access to water resources.

India Water Week: An International Forum

Since its inception in 2012, **India Water Week** has grown into a pivotal event in global water diplomacy, offering a platform for dialogue, innovation, and knowledge sharing. Each edition focuses on a specific water-related issue, providing policymakers, experts, and industry leaders the opportunity to present solutions and explore cooperative strategies.

President's Address

During her inaugural address, **President Droupadi Murmu** emphasised the importance of reducing water scarcity and ensuring sustainable access to water for all. She stressed the role of local communities in water conservation and management, drawing on India's ancient water management practices.

The President said that only 2.5 percent of the total water available on earth is freshwater. Even out of that only one percent is available for human use. India's share of the world's water **resources is four percent. About 80 percent of the water available in our country is used in the agricultural**

sector. She pointed to successful initiatives like the **Catch the Rain campaign (2021),** aimed at encouraging water conservation across the country. The President also called for a mass movement for water conservation, urging citizens to become "water warriors" to address the growing crisis of water scarcity.

Key Highlights of India Water Week 2024

The 2024 edition offered a dynamic mix of conferences, exhibitions, and study tours aimed at fostering dialogue on water-related challenges. Some of the key sessions included:

- **Inaugural Session and Ministerial Plenary:** Hon. President, Ministers and Senior government officials shared their vision and strategies for water management.
- **Global Water Leaders' Plenary:** International experts discussed global water crises and potential solutions.
- **Water Leaders' Forum:** Participants from the public and private sectors engaged in discussions on water management issues.
- **Country Forum:** Nations like Denmark, Israel, Australia, and Singapore presented their water-related innovations and experiences.
- **Practitioners' Forum:** A platform for government and private-sector representatives to share best practices in water management.
- **Water Convention:** Researchers presented papers on various water-related topics, providing in-depth insights into the sector.
- **Startup Forum:** A space for startups to pitch innovative ideas and technologies in the water sector.
- **Exhibition:** Covering **4,800 square meters**, the exhibition showcased state-of-the-art technologies from countries including Australia, Bangladesh, Canada, the UK, the USA, and several African nations.
- **Valedictory Session:** Reflections on key insights and outcomes of the event.

- **The National Safe Water Dialogue :** The National Safe Water Dialogue showcased the impact of JJM, with deliberations on topics such as – Lessons from implementing water disinfection technologies at scale, community engagement and impact assessment of Jal Jeevan Mission.

International WASH Conference

A key highlight of IWW 2024 was the **International WASH Conference**, organized by the Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti. This conference focused on global collaboration in Water, Sanitation, and Hygiene (WASH), aiming to address pressing sanitation challenges and promote hygiene standards. The conference was held between 17th-19th September 2024, in New Delhi. This three-day gathering, centered on the theme **'Sustaining Rural Water Supply'**, offered a platform for knowledge exchange, showcasing innovations, and sharing best practices aimed at addressing global WASH challenges, with a special focus on achieving Sustainable Development Goal 6 (SDG 6).

The event featured over **40 sessions (offline and online), 143 offline paper presentations, 43 online paper presentations, and 5 panel discussions,** exploring a wide range of topics such as water quality, greywater management, community engagement, Information, Education, and Behaviour Change Communication (IEC/BCC) initiatives, and climate change adaptation.

The International WASH Conference 2024 concluded with significant outcomes and actionable insights. The event showcased India's leadership in rural water management through initiatives like Jal Jeevan Mission and Swachh Bharat Mission, while also emphasising the need for global partnerships, community-led solutions, and technology-driven innovations to tackle future water challenges.

Exhibition

The **India Water Week 2024 Exhibition**, spanning **4,800 square meters, hosted 143 exhibitors** from across the globe. Exhibitors showcased cutting-edge water management technologies and solutions, focusing on sustainable practices and innovations in the sector.

The parallel-running exhibition was meant to provide an opportunity for exhibitors to showcase their ingenious solutions that can help us achieve the dream of sustainable and equitable development with water. The exhibition also served an excellent occasion for groups to find prospective business partners and possible expansion opportunities. Besides these advantages, it was also a unique opportunity for a brand-building exercise in the field of "Partnerships and Cooperation for Inclusive Water Development and Management".

Valedictory Session

The 8th India Water Week (IWW) 2024's valedictory session took place on 19 September 2024 in New Delhi. It was chaired by Union Minister for Jal Shakti Shri C.R. Paatil and attended by Minister of State Dr. Raj Bhushan Choudhary. The session also witnessed the launch of the Bhu-neer portal for groundwater regulation and the release of critical publications on water resources and irrigation projects.

Key Exhibitor Awards

During the valedictory session, awards were presented to exhibitors across four categories:

- **Best Central Ministry/Organization: CWPRS, Pune**
- **Best State Government: Kerala**
- **Best Industry: Ion-exchange India Ltd.**
- **Best Startup: Blueverse India Pvt Ltd, Mumbai**

Key Takeaways from India Water Week 2024

The India Water Week 2024 concluded with several important takeaways:

- **Collaboration and Cooperation:** Water security can only be achieved through partnerships across sectors and borders.
- **Innovation in Water Management:** Startups and technological innovations are key to addressing the future challenges of water resource management.
- **Community Participation:** Local communities play a crucial role in water conservation efforts, and their involvement is vital to achieving sustainable development.
- **Policy Recommendations:** The event produced several policy recommendations for sustainable water governance, addressing challenges in climate resilience, infrastructure development, and groundwater management.

Conclusion

India Water Week 2024 was a landmark event that brought together a diverse group of stakeholders to address the complexities of water management in the 21st century. The event paved the way for a more sustainable and inclusive approach to water development through partnership, cooperation, and innovation, ensuring equitable access to water resources for all.

References

https://indiawaterweek.in/
https://ejalshakti.gov.in/IWC
https://www.pib.gov.in/PressReleasePage.aspx?PRID=2055582
https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2056839
https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2056832

Santosh Kumar/ Ritu Kataria/ Madiha Iqbal

President's Secretariat

PRESIDENT OF INDIA INAUGURATES 8TH INDIA WATER WEEK

Posted On: 17 SEP 2024 3:21PM by PIB Delhi

The President of India, Smt Droupadi Murmu inaugurated the 8th India Water Week today (September 17, 2024) in New Delhi.

Speaking on the occasion, the President said that the goal of reducing the number of people suffering from water scarcity is of great importance for all of humanity. Under the Sustainable Development Goals, there is an emphasis on supporting and strengthening the participation of local communities to improve water and sanitation management.

The President said the arrangement for providing water to everyone has been the priority of our country since ancient times. From Ladakh to Kerala, effective systems of water conservation and management existed in our country. Such systems gradually disappeared during British rule. Our systems were based on harmony with nature. Systems developed on the basis of the idea of controlling nature are now being

reconsidered all over the world. Many ancient examples of various types of Water Resource Management are available all over the country which are relevant even today. Our ancient water management systems should be researched and used practically in the modern context.

The President said that water bodies such as wells; ponds have been water banks for our society for centuries. We deposit money in the bank, only after that we can withdraw money from the bank and use it. The same thing applies to water. People will first store water; only then will they be able to use water. People who misuse money go from prosperity to poverty. Similarly, water scarcity is seen even in rain-rich areas. People who use limited income wisely remain safe from financial crises in their lives. Similarly, villages that store water in low rainfall areas remain safe from water crises. In many areas of Rajasthan and Gujarat, villagers have got rid of water scarcity through their efforts and by adopting effective methods of water storage.

The President said that only 2.5 percent of the total water available on earth is freshwater. Even out of that only one percent is available for human use. India's share of the world's water resources is four percent. About 80 percent of the water available in our country is used in the agricultural sector. Apart from agriculture, the availability of water is essential for power generation, industry and domestic needs. Water resources are limited. The supply of water to everyone is possible only through efficient use of water.

The President said that in the year 2021, the Government launched a campaign with the message of 'Catch the Rain – Where it Falls When it Falls'. The objective of this campaign is to achieve water conservation, rainwater harvesting and other important goals of water management. Increasing forest wealth also helps in water management. Children also play an important role in water conservation and

management. They can make their family and neighborhood aware and can also use water properly themselves. Jal Shakti efforts will have to be transformed into a mass movement; All citizens will have to play the role of water-warriors.

The President said that the goal of 'India Water Week-2024' is inclusive water development and management. She appreciated the Ministry of Jal Shakti for choosing the right medium to achieve this goal - that medium is - partnership and cooperation.

Please click here to see the President's Speech-

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MJPS/SR

Name of the Newspaper	The Pioneer
Date	September 18, 2024

President Murmu to inaugurate 8th India Water Week 2024

Tuesday, 17 September 2024 | Pioneer News Service | New Delhi

President Murmu to inaugurate 8th India Water Week 2024

Tuesday, 17 September 2024 | Pioneer News Service | New Delhi

President Droupadi Murmu will inaugurate the four-day 8th India Water Week 2024 to be kicked off from Tuesday, bringing international and domestic water experts under a platform to deliberate on issues beyond conventional solutions and exploring innovative approaches to address the complexities of water management in the 21st century.

Addressing the media during the Curtain Raiser Press Conference here on Monday, Secretary (Jal Shakti) Debashree Mukherjee said that the theme of the mega event is 'Partnerships and Cooperation for Inclusive Water Development and Management'.

"Our theme underscores a fundamental truth: achieving sustainable water management requires collaboration across all sectors and levels," she added. Mukherjee further informed that the event, the eighth in the series, will be inaugurated in the presence of Union Minister of Jal Shakti CR Paatil and Minister of State Raj Bhushan Choudhary. It is being organized by the Ministry of Jal Shakti.

The event will feature distinguished delegates, including experts in the field of water resources from various countries, as well as ministers and senior officers from Central and State Governments, faculty from various academic institutions, representatives from non-governmental organizations, and civil society.

The aim is to initiate regular and systematic discussions and talks with eminent stakeholders through seminars, exhibitions, and other parallel sessions to build public awareness and gain support for implementing key strategies for the conservation, preservation, and optimal use of available water, said a statement here.

At the event, while representatives from the government sector will share their vision and perspectives on the water sector, global experts will present their insightful and thought-provoking ideas.

The Union Ministry of Panchayati Raj, participating as a partner ministry, will showcase its efforts to advance sustainable water practices in rural India. It is promoting Water-Sufficient Villages as part of its initiative on the Localization of Sustainable Development Goals through targeted panchayat development plans by converging resources.

Name of the Newspaper	Indian Express
Date	September 17, 2024

President Murmu to inaugurate 8th India Water Week today

Union Minister of Jal Shakti, C R Paatil and Minister of State for Jal Shakti Raj Bhushan Choudhary will be present during the inauguration of the event.

By: **Express News Service**
New Delhi | September 17, 2024 03:58 IST

President Droupadi Murmu (File Photo)

President Droupadi Murmu will inaugurate the 8th India Water Week 2024 Tuesday. The biennial event will be held from September 17-20.

Speaking to reporters, Jal Shakti Secretary Debashree Mukherjee said that the theme of this year□s India Water Week is □Partnerships and Cooperation for Inclusive Water Development and Management□.

About 4,000 delegates have registered for the water week, she said, adding that multiple sessions on various issues related to water security including flood management, drinking water and sanitary will be held.

Responding to a question, Mukherjee said, □China and Bangladesh are not participating. Bangladesh was participating but in the current circumstances, they are not.□

Union Minister of Jal Shakti, C R Paatil and Minister of State for Jal Shakti Raj Bhushan Choudhary will be present during the inauguration of the event.

In a statement, the Jal Shakti Ministry said, □The event would witness the participation of distinguished delegates including experts in the field of Water Resources from various countries, as well as Ministers and senior officers from Central and State Governments, besides learned faculty from various academic institutions, representatives from NGOs and civil society.□

Meanwhile, in a video message at the News18 SheShakti Summit 2024, Murmu said the time had come to awaken a public consciousness where □respect for women is increased, and no woman feels unsafe at any time, in any place□.

She said strict laws had been made regarding women□s safety in the country. □Yet, it is unfortunate that feelings of insecurity still exist. The constant struggle of women is against the social narrowmindedness and conservatism that consider them weak,□ Mu rmu said.

Although many changes have occurred, some social prejudices remain deeply rooted, creating barriers to women□s equality, the president was quoted as having said in a press release by the organisers. □As a society, we all need to look within ourselves and ask some hard questions. Where have we gone wrong? What can we do to improve?□ she said.

Name of the Newspaper	Matribhumi Samachar
Date	September 18, 2024

Matribhumi Samachar

Address : 125 - Rajiv Nagar, Vinayakpur, Kanpur - 208025

Home / National / Day-2 of the 8th India Water Week 2024 witnesses impressive turnout showcasing enthusiasm amongst participants

Day-2 of the 8th India Water Week 2024 witnesses impressive turnout showcasing enthusiasm amongst participants

MaSS English September 24, 2024 National Leave a comment

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Continuing with first day□s momentum, the Day-2 of the 8th India Water Week 2024 also witnessed an impressive turnout showcasing the great enthusiasm amongst the participants.

Three sessions of the **Country Forum** were held today. Experts from Denmark, Singapore, Guyana, Zimbabwe, Indonesia, Morocco and Cambodia shared their experiences and highlighted their best practices in water sector. These sessions highlighted the opportunities for cooperation and collaboration between Governments and Businesses in water sector.

A joint High level Plenary session for the **6th India □EU Water Forum** was conducted in the august presence of Minister of State for Jal Shakti, Dr. Raj Bhushan Choudhary. The Forum aimed to explore relevant areas in water sector as well as throw light on developments of India -EU Water Partnership to which the governmental representatives, experts, researchers, businesses and other stakeholders can contribute and benefit from. *(Detailed Press Release: https://pib.gov.in/PressReleseDetail.aspx?PRID=2056022)*. Similarly separate sessions with Israel and Australia were also held to share innovative solutions and best practices in water management.

Another important part of the Day 2 of event was **Water Leaders□Forum** covering important water themes on integrated surface and ground water storage management, demand management and Water Use Efficiency and other

related sectors through presentations and deliberations by National / International Experts from industry, public sector, policy makers, research and academia, NGOs etc.

Three sessions of **Practitioners Forum** were also held today with experts sharing their experiences and lessons learnt in integrated water management in agriculture, spring-shed management and conservation initiatives for hilly states during implementation of schemes in water sector. These sessions witnessed an enthusiastic participation from States, sharing of data/information, partnership & co-operation with NGOs etc.

The attraction of Day-2 was a **Youth Forum,** especially planned for our nation s young intellects. The session was graced by esteemed presence of Minister of State for Water Resources, Dr. Raj Bhushan Choudhary who exhorted the young leaders to become water stewards; responsible for effective water management in their communities and beyond. About 200 students from different schools participated with enthusiasm and about 20 students delivered speeches on the topic Role of water in socio-economic development of country .

Further, seven sessions of water conventions were held with active participation of stakeholders which offered a diverse and comprehensive perspective on the future of water management, featuring contributions from global leaders, policymakers, researchers, practitioners and young innovators.

Secretary, DoWR, RD & GR, Smt. Debashree Mukherjee was amongst several dignitaries visiting various stalls in the exhibition showcasing innovative water solutions. Smt. Mukherjee interacted with the media also emphasizing the importance of sustainable water management. The exhibition of the event continued to witness significant footfall highlighting the high level of interest amongst the visitors.

Name of the Newspaper	Sarkaritel
Date	September 18, 2024

PRESIDENT OF INDIA INAUGURATES 8TH INDIA WATER WEEK

by New Desk September 17, 2024 0 65

SHARE 0

Name of the Newspaper	India Shipping News
Date	September 19, 2024

INDIA SHIPPING NEWS
Online News Portal on India and International Shipping

Menu

8th India Water Week 2024 witnesses impressive turnout showcasing enthusiasm amongst participants

Sep 19, 2024 India Shipping News

Share This News Story:

NEW DELHI : Continuing with first day's momentum, the **Day-2 of the 8th India Water Week 2024** also witnessed an impressive turnout showcasing the great enthusiasm amongst the participants.

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Further, seven sessions of water conventions were held with active participation of stakeholders which offered a diverse and comprehensive perspective on the future of water management, featuring contributions from global leaders, policymakers, researchers, practitioners and young innovators.

Secretary, DoWR, RD & GR, Smt. Debashree Mukherjee was amongst several dignitaries visiting various stalls in the exhibition showcasing innovative water solutions. Smt. Mukherjee interacted with the media also emphasizing the importance of sustainable water management. The exhibition of the event continued to witness significant footfall highlighting the high level of interest amongst the visitors.

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Maritime, Trade, Trending News, waterways 8th India Water Week 2024, Water Leaders' Forum

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Name of the Newspaper	Hindustan Times
Date	September 17, 2024

India leading global efforts to manage water: President Droupadi Murmu

By Zia Haq

Sep 17, 2024 03:50 PM IST

The president called for conservation and efficient use of water, while praising the government's Jal Jeevan Mission for enabling equitable access to an essential resource for development and survival

Name of the Newspaper	Tripura Star News
Date	September 17, 2024

TRIPURA STAR NEWS

President Of India Inaugurates The 8th India Water Week In New Delhi.

President Of India Inaugurates The 8th India Water Week In New Delhi.

September 17, 2024 2 min read

Spread the love

New Delhi, Delhi, 17th of September, 2024: President of India, Smt. Droupadi Murmu inaugurated the 8th India Water Week today in New Delhi today, in the august presence of Union Minister of Jal Shakti, Shri C.R. Paatil, Minister of State for Jal Shakti, Dr. Rajbhushan Choudhary and other dignitaries both from around the globe as well as across the country.

The event commenced with the auspicious ceremony of Jal Bharo by the dignitaries on the dais. This ceremony symbolizes the immense importance of water conservation. The Water Convention, with 18 sessions planned for the event, started today with main focus on knowledge sharing and debates / discussions among water experts, professionals, technocrats and practitioners covering themes / sub themes of the event.

In her inspirational address to the conclave, Hon. President highlighted the significance of water as a vital resource for life. She also quoted ancient Vedic wisdom to stress upon the timeless importance of water conservation, drawing upon verses that reflect the sacredness of water and its vital role in sustaining life. Smt. Murmu further underscored that young minds, being foundation stones of future, should be made aware of the significance of water conservation. In her words, Water Conservation is theonly way to give a better and safer tomorrow to coming generations. Hon. President expressed confidence that all will benefit from the exchange of ideas and technologies to be deliberated during this four-day long India Water Week 2024.

Union Minister of Jal Shakti, Shri C. R. Paatil addressed the august audience and emphasized the need for collective efforts to address the global water crisis. Ms. Vini Mahajan, Secretary, DoDWS, Ministry of Jal Shakti welcomed all the dignitaries and briefed about the theme of the event.

The attraction of the DAY 1 was commendable experiences shared by two grass root women **Water Warriors** Ms. Ujiaro Bai from Madhya Pradesh and Ms. Lakmen Mary Nongkhlaw from Meghalaya. These women have taken the initiative to bring changes and inspire others to take up the cause of water conservation. Both the warriors were given a huge round of applause by the audience.

A Ministerial Plenary session was held under the chairmanship of Shri C.R. Paatil, with participation of Ministers from various countries including Denmark, Guyana, Zimbabwe and Tanzania and also water resources ministers from various Indian States. Shri Paatil also inaugurated an Exhibition on the state-of-art technologies and solutions in the water sector.

Global Water Leaders Plenary is another remarkable part of the event with two sessions held today wherein Global Water leaders shared their perspectives and insights on the theme of the event.

A **Country Forum,** on the sidelines of IWW-2024, witnessed participation of different countries showcasing their best practices and experiences in water sector.

Another attraction of the Day was the **Practitioners Forum** that started today with sessions sharing best practices in implementation of schemes and programs in various aspects of water as well as lessons learnt during the implementation.

A cultural programme in the evening enthralled the audience.

Name of the Newspaper	Amar Ujala
Date	September 17, 2024

अमर उजाला

भारत जल सप्ताह: आज से भारत मंडपम में जल प्रबंधन पर मंथन करेंगे विशेषज्ञ, राष्ट्रपति मुर्मू करेंगी शुभारंभ

अमर उजाला नेटवर्क, नई दिल्ली Published by: विजय पुंडीर Updated Tue, 17 Sep 2024 05:00 AM IST

सार

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दिल्ली-एनसीआर

भारत मंडपम में मंगलवार से 20 सितंबर तक 8वें भारत जल सप्ताह के तहत प्रदर्शनियां लगाएगा। राष्ट्रपति द्रौपदी मुर्मू कार्यक्रम का शुभारंभ करेंगी। कार्यक्रम का विषय 'समावेशी जल विकास और प्रबंधन के लिए भागीदारी और सहयोग' है।

राष्ट्रपति द्रौपदी मुर्मू - फोटो : एक्स/प्रेसीडेंट ऑफ इंडिया

पंचायती राज मंत्रालय नई दिल्ली के प्रगति मैदान स्थित भारत मंडपम में मंगलवार से 20 सितंबर तक 8वें भारत जल सप्ताह के तहत प्रदर्शनियां लगाएगा। राष्ट्रपति द्रौपदी मुर्मू कार्यक्रम का शुभारंभ करेंगी।

आयोजन में पंचायती राज के अलावा पर्यावरण और जलवायु परिवर्तन, ऊर्जा मंत्रालय, शहरी विकास, कृषि और किसान कल्याण मंत्रालय से लेकर ग्रामीण विकास मंत्रालय भाग लेंगे। कार्यक्रम में विभिन्न देशों के जल संसाधन क्षेत्र के

विशेषज्ञों समेत जल के क्षेत्र में काम कर रहे लोग भाग लेंगे। आयोजन में डेनमार्क, इस्राइल, आस्ट्रेलिया और सिंगापुर जैसे देश अपने देश की श्रेष्ठ प्रथाओं और जल प्रबंधन को लेकर चर्चा करेंगे।

कार्यक्रम का विषय 'समावेशी जल विकास और प्रबंधन के लिए भागीदारी और सहयोग' है। मंत्रालय के प्रदर्शनी स्टॉल पर देश भर की ग्राम पंचायतों की ओर से जल प्रबंधन में अपनाए जा रहे सर्वोत्तम तरीकों को प्रदर्शित किया जाएगा, जिसमें जल संरक्षण, वर्षा जल संचयन, भूजल पुनर्भरण, जल वितरण, जल वितरण में राशनिंग आदि शामिल हैं।

सिर्फ सरकारें नहीं कर सकतीं समाधान मिलकर काम करना होगा

देबाश्री मुखर्जी जल संसाधन, नदी विकास और गंगा संरक्षण सचिव देबाश्री मुखर्जी ने कहा स्वच्छ जल तक पहुंच, स्वच्छता एवं स्थायी जल प्रबंधन का कार्य सिर्फ सरकारें नहीं कर सकती हैं। इसके लिए उद्योगों, शिक्षाविदों और नागरिक समाज को मिलकर काम करना होगा। यह कई हितधारकों को एक साथ लाने, एक-दूसरे से सीखने और मुद्दों का मिलकर समाधान खोजने का प्रयास है। उन्होंने कहा, आयोजन का मकसद उपलब्ध जल संसाधनों का अधिकतम प्रयोग और प्रबंधन है। इसका लक्ष्य 21 वीं सदी में जल प्रबंधन की जटिलताओं को संबोधित करना है।

भाग नहीं लेंगे चीन और बांग्लादेश

इस आयोजन में चीन और बांग्लादेश भाग नहीं लेंगे। बांग्लादेश पहले इस आयोजन में सक्रिय भूमिका में था, लेकिन वहां के हालातों के चलते अब वह इस आयोजन का हिस्सा नहीं होगा। आयोजन में चार देशों और भारत के आठ राज्यों के मंत्री भाग लेंगे। ये जल प्रबंधन पर अपने अनुभवों को साझा करेंगे। इसके अलावा दो महिला जल योद्धा जो जल संसाधनों के प्रबंधन पर अपने जीवन के वास्तविक अनुभवों को साझा करेंगी। इसमें मध्य प्रदेश से उजियारी बाई हैं। कार्यक्रम में कनाडा, ब्रिटेन जैसे देशों के उच्च तकनीक समाधानों के अलावा शैक्षणिक संस्थान अपनी दक्षता का प्रदर्शन करेंगे। इसके अलावा स्टार्टअप भी अपने सफलता की कहानियां साझा करेंगे।

Name of the Newspaper	ANI News
Date	September 18, 2024

- हिंदी खबर (/hindi/khabar/)

President Droupadi Murmu (Photo/ANI)

President Murmu inaugurates 'India Water Week', highlights importance of conserving water

ANI | Updated: Sep 18, 2024 02:34 IST

New Delhi [India], September 18 (ANI): The President of India, Droupadi Murmu (/topic/droupadi-murmu), inaugurated the 8th India Water Week on Tuesday in New Delhi and appreciated the Ministry of Jal Shakti (/topic/ministry-of-jal-shakti) for using partnership and cooperation to achieve the goal of inclusive water development and management.

Speaking on the occasion, the President said, "The goal of reducing the number of people suffering from water scarcity is of great importance for all of humanity. Under the Sustainable Development Goals, there is an emphasis on supporting and strengthening the participation of local communities to improve water and sanitation management."

The President further emphasised the need to provide water to everyone, saying that such an arrangement has been the priority since the 'ancient times'.

"The arrangement for providing water to everyone has been the priority of our country since ancient times. From Ladakh to Kerala, effective systems of water conservation and management existed in our country. Such systems gradually disappeared during British rule. Our systems were based on harmony with nature. Systems developed on the basis of the idea of controlling nature are now being reconsidered all over the world. Many ancient examples of various types of Water Resource Management are available all over the country which are relevant even today. Our ancient water management systems should be researched and used practically in the modern context," added the President.

Speaking on the availability of fresh water and the multiple uses of water for agriculture, power generation, industry and domestic needs, she said, "Only 2.5 pc of the total water available on earth is freshwater. Even out of that, only one per cent is available for human use. India's share of the world's water resources is 4 pc. About 80 pc of the water available in our country is used in the agricultural sector. Apart from agriculture, the availability of water is essential for power

generation, industry and domestic needs. Water resources are limited. The supply of water to everyone is possible only through efficient use of water."

She also said that water bodies should not be misused and should be treated akin to money in the bank.

"Water bodies such as wells; ponds have been water banks for our society for centuries. We deposit money in the bank, only after that we can withdraw money from the bank and use it. The same thing applies to water. People will first store water; only then will they be able to use water. People who misuse money go from prosperity to poverty. Similarly, water scarcity is seen even in rain-rich areas. People who use limited income wisely remain safe from financial crises in their lives. Similarly, villages that store water in low rainfall areas remain safe from water crises. In many areas of Rajasthan and Gujarat, villagers have got rid of water scarcity through their efforts and by adopting effective methods of water storage," she added.

The President also highlighted the 2021 campaign of the union government, 'Catch the Rain - Where it Falls When it Falls', as he mentioned the need for water conservation, rainwater harvesting and water management.

"The objective of this campaign is to achieve water conservation, rainwater harvesting and other important goals of water management. Increasing forest wealth also helps in water management. Children also play an important role in water conservation and management. They can make their family and neighbourhood aware and can also use water properly themselves. Jal Shakti's efforts will have to be transformed into a mass movement; all citizens will have to play the role of water warriors," she added. (ANI)

TAGS Droupadi Murmu (/topic/droupadi-murmu/)

Name of the Newspaper	DD News
Date	September 18, 2024

President Murmu Inaugurates 8th India Water Week

The 8th India Water Week kicked off on Tuesday in the capital, with President Droupadi Murmu inaugurating the event that underscores India's commitment to addressing critical water challenges through inclusive development and international partnerships.

The week-long conference, organized by the Ministry of Jal Shakti under the theme "Partnerships and Cooperation for Inclusive Water

Development and Management," brings together diverse stakeholders to discuss and develop sustainable water management strategies.

In her inaugural address, President Murmu emphasized the importance of reducing water scarcity globally, aligning with the United Nations' Sustainable Development Goals. She highlighted India's rich history of water conservation, urging a return to traditional practices that harmonize with nature.

"Our ancient water management systems should be researched and used practically in the modern context," the President said, calling for a balance between traditional wisdom and contemporary technology.

President Murmu stressed the need for efficient water use, saying that only 1% of the earth's freshwater is available for human use, with India possessing 4% of the world's water resources. She called for transforming water conservation efforts into a mass movement, with citizens acting as "water-warriors."

The event saw the recognition of "Woman Water Warriors," with Ujiaro Bai from Madhya Pradesh and Lakemen Nongkhlaw from Meghalaya honored for their grassroots efforts in water conservation.

Minister of Jal Shakti C.R. Patil spoke about the government's initiatives, including the Jal Jeevan Mission and Namami Gange, which integrate traditional knowledge with modern approaches to water management.

The conference serves as a platform for international cooperation, featuring participation from countries worldwide. Discussions are expected to cover a range of topics, including the impact of climate change on water resources and strategies for equitable water distribution.

Name of the Newspaper	The Tribune
Date	September 18, 2024

The Tribune
VOICE OF THE PEOPLE

Murmu opens India Water Week

President Droupadi Murmu on Tuesday inaugurated the 8th India Water Week. She said traditional water conservation mechanism had disappeared in India during the British rule. ...

TRIBUNE NEWS SERVICE

New Delhi, Updated At : 06:36 AM Sep 18, 2024 IST

President Droupadi Murmu. File photo

President Droupadi Murmu on Tuesday inaugurated the 8th India Water Week. She said traditional water conservation mechanism had disappeared in India during the British rule.

Name of the Newspaper	The Print
Date	September 17, 2024

President Murmu inaugurates 8th India Water Week, emphasizing water conservation & management

The campaign aims to raise awareness about the importance of water conservation and management, and to promote the role of citizens in safeguarding this precious resource.

THEPRINT TEAM 17 September, 2024 06:17 pm IST

Name of the Newspaper	Economics Times
Date	September 17, 2024

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Policy 3 Min Read

President Droupadi Murmu inaugurates 8th India Water Week i New Delhi

The President said that only 2.5 percent of the total water available on earth is freshwate Even out of that only one percent is available for human use. India's share of the world's water resources is four percent.

Online Bureau , • Agencies
Updated On Sep 17, 2024 at 04:52 PM IST

President Droupadi Murmu inaugurates the 8th India Water Week in New Delhi on Tuesday.

President Droupadi Murmu inaugurated the 8th India Water Week on Tuesday in New Delhi. Speaking on the occasion, the President said that the goal of reducing the number of people suffering from water scarcity is of great importance for all of humanity. Under the Sustainable Development Goals, there is an emphasis on supporting and strengthening the participation of local communities to improve water and sanitation management.

Stating that "the arrangement for providing water to everyone has been the priority of our country since ancient times," the President said from Ladakh to Kerala, effective systems of water conservation and management existed in the country. "Such systems gradually disappeared during British rule. Our systems were based on harmony with nature. Systems developed on the basis of the idea of controlling nature are now being reconsidered all over the world. Many ancient examples of various types of water resource management are available all over the country which are relevant even today. Our ancient water management systems should be researched and used practically in the modern context," Murmu observed.

The President said that water bodies such as wells, ponds have been water banks for society for centuries. "We deposit money in the bank, only after that we can withdraw money from the bank and use it. The same thing applies to water. People will first store water; only then will they be able to use it. People who misuse money go from prosperity to poverty. Similarly, water scarcity is seen even in rain-rich areas. People who use limited income wisely remain safe from financial crises in their lives. Similarly, villages that store water in low rainfall areas remain safe from water crises. In many areas of Rajasthan and Gujarat, villagers have got rid of water scarcity through their efforts and by adopting effective methods of water storage, she said.

The President said that only 2.5 percent of the total water available on earth is freshwater. Even out of that only one percent is available for human use. India's share of the world's water resources is four percent. About 80 percent of the water available in our country is used in the agricultural sector. Apart from agriculture, the availability of water is essential for power generation, industry and domestic needs. Water resources are limited. The supply of water to everyone is possible only through efficient use of water.

The President said that in the year 2021, the government launched a campaign with the message of 'Catch the Rain – Where it Falls When it Falls'. The objective of thiscampaign is to achieve water conservation, rainwater harvesting and other important goals of water management. Increasing forest wealth also helps in water management. Children also play an important role in water conservation and management. They can make their family and neighborhood aware and can also use water properly themselves. Jal Shakti efforts will have to be transformed into a mass movement; All citizens will have to play the role of water-warriors. The President said that the goal of 'India Water Week-2024' is inclusive water development and management. She appreciated the Ministry of Jal Shakti for choosing the right medium to achieve this goal - that medium is - partnership and cooperation.

Name of Agency	PIB
Date	September 19, 2024

Ministry of Jal Shakti

Union Minister Shri C.R. Paatil presides over the Valedictory Session of the 8th India Water Week 2024 in New Delhi

Bhu-neer portal of CGWA for ground water regulation launched

Posted On: 19 SEP 2024 9:17PM by PIB Delhi

The Valedictory Session of the 8th India Water Week (IWW) 2024 was organized today in New Delhi, under the chairmanship of Union Minister for Jal Shakti, Shri C.R. Paatil, with the August presence of Minister of State Dr. Raj Bhushan Choudhary. Secretary (DoWR, RD & GR), Smt. Debashree Mukherjee delivered the welcome address during the session.

Shri C.R. Paatil delivered the valedictory address and expressed his appreciation for all the participants from around the globe as well as across the country. The Minister also acknowledged the tireless efforts for successfully organizing the event by the dedicated team of officers from the Ministry of Jal Shakti, its two Departments viz. DoWR, RD & GR and DoDWS and its various organizations viz. NWDA, CWC, CGWB, NIH, NMCG, NRCD, NWIC, CSMRS, CWPRS, WAPCOS etc. He expressed confidence that the collective deliberations and outcomes of the 8th India Water Week will go a long way towards addressing the unique water issues of India through a collaborative and innovative approach.

A brief on the 8th IWW 2024 was presented by Shri Rakesh Kumar Verma, Additional Secretary (DoWR, RD & GR), Ministry of Jal Shakti. He enumerated various important recommendations that emerged from the 8th IWW 2024 on the various facets of water sector viz. Collaboration & Cooperation for Water Security, Integrated Water Resources Development & Management, Challenges in Water Sector Infrastructure, Risk and New Approaches to Climate Resilience, Groundwater Sustainability and Management, Water Governance and Financing, Water related Disasters and its Management etc.

During the session, **Bhu-neer portal** of CGWA for ground water regulation was e-launched. Further important publications viz; National register of Major and Medium irrigation projects in India, Assessment of water resources in India, Compendium of sedimentation of reservoirs in India by CWC and Coffee Table book of Heliborne survey conducted by CGWB were also released during the session.

Exhibitor's awards were also given under four categories.

1. **Category I**- Best Central Ministry/Organization- CWPRS, Pune
2. **Category II**- Best State Government- Kerala
3. **Category III**- Best Industry- Ion-exchange India ltd
4. **Category IV**- Best Startup- Blueverse India Pvt ltd, Mumbai, Maharashtra


INDIA WATER WEEK - 2024
Partnerships and Cooperation for Inclusive
Water Development and Management
17-20 SEPTEMBER 2024


INDIA WATER WEEK - 2024
Partnerships and Cooperation for Inclusive
Water Development and Management
17-20 SEPTEMBER 2024

The event was inaugurated on 17th September, 2024 by Hon'ble President of India. Continuing with the same spirit of the last two days, Day-3 also showed great zeal and enthusiasm among participants who turned up in large numbers.

An important part of the Day-3 of the event was **Water Leaders' Forum** in which seven sessions covering themes on partnerships on accelerating innovation in water sector; integrated flood management; partnership and cooperation for integrated water resources management; public private partnership in water sector; sustainable water management for industry & businesses; partnerships for climate action in water sector; circularity in waste water management were held with a lot of insightful deliberations amongst the panelists and participants.

Further, seven sessions of **Water Conventions** with three themes viz; water governance and financing, water related disaster and its management and challenges in water sector infrastructure were held with the active participation of stakeholders which offered a diverse and comprehensive perspective with a

multifaceted approach and innovative ideas for the future highlighting current challenges in water management.

Two sessions of **Practitioners' Forum** were held today on the topics achieving universal access to drinking water in rural areas; synergizing actions for ecological sustainability and human wellbeing, with experts sharing their experiences and practical lessons.

The big attraction of Day-3 was the **Startup Forum,** which is a dynamic platform for innovative thinkers and private entrepreneurs in the water sector who presented Smart water tools and technologies; showcasing cutting-edge solutions across a variety of crucial areas of the water sector. In all nine startups presented their innovative solutions in the water sector.

Various Fora / sessions that started on Day-1 of the event with huge participation of delegates, experts, policy makers, industry, researchers etc. successfully concluded today.

The **Exhibition**, spanning 4,800 square meters and featuring over 143 exhibitors, has been a remarkable part of the entire event.

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Name of the Newspaper	CSR Times
Date	September 17, 2024

CSR TIMES

PRESIDENT OF INDIA INAUGURATES 8TH INDIA WATER WEEK

CSR News, Press Release | September 17, 2024

The President of India, Smt. Droupadi Murmu, inaugurated the 8th India Water Week today (September 17, 2024) in New Delhi.

Speaking on the occasion, the President said that the goal of reducing the number of people suffering from water scarcity is of great importance for all of humanity. Under the Sustainable Development Goals, there is an emphasis on supporting and strengthening the participation of local communities to improve water and sanitation management.

The President said the arrangement for providing water to everyone has been the priority of our country since ancient times. From Ladakh to Kerala, effective systems of water conservation and management existed in our country. Such systems gradually disappeared during British rule. Our systems were based on harmony with nature. Systems developed on the basis of the idea of controlling nature are now being reconsidered all over the world. Many ancient examples of various types of water resource management are available all over the country and are relevant even today. Our ancient water management systems should be researched and used practically in the modern context.

The President said that water bodies such as wells and ponds have been water banks for our society for centuries. We deposit money in the bank; only after that can we withdraw money from the bank and use it. The same thing applies to water. People will first store water; only then will they be able to use water. People who misuse money go from prosperity to poverty. Similarly, water scarcity is seen even in rain-

rich areas. People who use limited income wisely remain safe from financial crises in their lives. Similarly, villages that store water in low-rainfall areas remain safe from water crises. In many areas of Rajasthan and Gujarat, villagers have gotten rid of water scarcity through their efforts and by adopting effective methods of water storage.

The president said that only 2.5 percent of the total water available on earth is freshwater. Even out of that, only one percent is available for human use. India's share of the world's water resources is four percent. About 80 percent of the water available in our country is used in the agricultural sector. Apart from agriculture, the availability of water is essential for power generation, industry, and domestic needs. Water resources are limited. The supply of water to everyone is possible only through efficient use of water.

The President said that in the year 2021, the government launched a campaign with the message 'Catch the Rain—Where it Falls, When it Falls'. The objective of this campaign is to achieve water conservation, rainwater harvesting, and other important goals of water management. Increasing forest wealth also helps in water management. Children also play an important role in water conservation and management. They can make their family and neighborhood aware and can also use water properly themselves. Jal Shakti efforts will have to be transformed into a mass movement. All citizens will have to play the role of water warriors.

The President said that the goal of 'India Water Week-2024' is inclusive water development and management. She appreciated the Ministry of Jal Shakti for choosing the right medium to achieve this goal—that medium is partnership and cooperation.

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4.	**Council on Energy, Environment and Water (CEEW)** ISID Campus, 4, Vasant Kunj Institutional Area, New Delhi
5.	**Indian Chamber of Commerce (ICC)** ICC Tower, 4, India Exchange Place, Kolkata, West Bengal
6.	**International Water Management Institute (IWMI)** 2nd Floor, CG Block C, NASC Complex, DPS Marg, Pusa, New Delhi

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6.	Joint Secretary/Representative Department of Drinking Water and Sanitation, 9th Floor, CGO Complex, Lodhi Road, New Delhi – 110003	MEMBER
7.	Joint Secretary (SC) Incharge of Smart cities project, Ministry of Housing and Urban Affairs (MoH&UA), Nirman Bhawan, Maulana Azad Road, New Delhi – 110011	MEMBER
8.	Joint Secretary/Representative Central Public Health Environmental Engineering Organisation (CPHEEO), Ministry of Housing and Urban Affairs (MoH&UA), Room No. 644-A, A-Wing, Nirman Bhawan, New Delhi – 110011	MEMBER
9.	Mission Director/ Representative National Water Mission (NWM), DoWR, RD & GR, Ministry of Jal Shakti, 2nd Floor, Block-III, CGO Complex, Lodhi Road, New Delhi – 110003	MEMBER

10.	Director Central Soil and Materials Research Station (CSMRS), Outer Ring Road, Hauz Khas, Olof Palme Marg, New Delhi – 110016	MEMBER
11.	Advisor (Water Resources & Land Resources) NITI Aayog, Room No. 209, Yojana Bhawan, Sansad Marg, New Delhi – 110001	MEMBER
12.	Joint Secretary (dealing with Wind and Tidal Energy) Ministry of New and Renewable Energy, Block-14, CGO Complex, Lodhi Road, New Delhi – 110003	MEMBER
13.	Joint Secretary (dealing with Solar Energy) Ministry of New and Renewable Energy, Block-14, CGO Complex, Lodhi Road, New Delhi – 110003	MEMBER
14.	Chief Engineer Inland Waterways Authority of India, Ministry of Port, Shipping & Waterways A-13, Sector -1, Noida, U.P. – 201301	MEMBER
15.	Member Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi – 110011	MEMBER
16.	Member (Hydro) Central Electricity Authority (CEA), 712 (N), Sewa Bhawan, R. K. Puram, New Delhi – 110066	MEMBER
17.	Director National Institute of Hydrology, Jal Vigyan Bhawan, Roorkee – 24766	MEMBER
18.	Chairman-cum-Managing Director or his Representative, WAPCOS Limited, 76-C, Sector-18, Institutional Area, Gurgaon – 122015	MEMBER
19.	Secretary General International Commission on Irrigation & Drainage (ICID), 48-Nyaya Marg, Chanakya Puri, New Delhi - 110 021	MEMBER
20.	Chief Engineer Delhi Jal Board, Varunalaya Phase-II, Jhandewalan, Karol Bagh, New Delhi – 110005	MEMBER

21.	CE (EMO) Central Water Commission, Sewa Bhawan, R. K. Puram, New Delhi – 110066	MEMBER
22.	Scientist 'E' India Meteorological Department (IMD), Mausam Bhawan, Lodhi Road, New Delhi – 110003	MEMBER
23.	Principal Scientist (WM) KAB-II, Indian Council of Agricultural Research (ICAR), Division of Natural Resource Management, Room No.112, Krishi Anusandhan Bhawan, New Delhi – 110001	MEMBER
24.	Project Director WTC IARI- Indian Agricultural Research Institute, Pusa Campus, New Delhi – 110012	MEMBER
25.	Horticulture Commissioner National Committee on Plasticulture Applications in Horticulture (NCPAH), Department of Agriculture & Farmers Welfare, International Trade Tower, 10th Floor, Nehru Place, New Delhi – 110019	MEMBER
26.	Additional Commissioner Rainfed Farming Systems Division, Department of Agriculture & Farmers Welfare, Room No: 147 A, Krishi Bhawan, New Delhi – 110001	MEMBER
27.	Chairman-cum-Managing Director or Representative NTPC Limited, Engg. Office Complex, A-8A, Sector-24, Noida – 201301	MEMBER
28.	Representative of Central Pollution Control Board (CPCB) Arjun Nagar, New Delhi – 110003	MEMBER
29.	Representative of MoEF & CC (Not below the rank of Joint Secretary) Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110003	MEMBER
30.	Head, Technology Missions Division Dept. of Science and Technology, Technology Bhawan, New Mehrauli Road, New Delhi – 110016	MEMBER

31.	Shri C. Srinivas or Representative Centre for Policy Research, Chanakyapuri, New Delhi – 110021	MEMBER
32.	Chairman-cum-Managing Director or Representative NHPC Limited, N.H.P.C Office Complex, Sector-33, Faridabad (HR) – 121003	MEMBER
33.	HoD, Department of Civil Engineering, IIT Delhi, Hauz Khas, New Delhi – 110016	MEMBER
34.	Chief Engineer Design (E&NE) Central Water Commission, Room No.620 (South), Sewa Bhawan, R. K. Puram, New Delhi – 110066	MEMBER
35.	Chief Engineer (YBO) Central Water Commission, Kalindi Bhawan, Qutab Institutional Area, New Delhi – 110016	MEMBER
36.	Director General National Water Development Agency, New Delhi.	MEMBER
37.	Chief Engineer (HQ.) National Water Development Agency, Saket, New Delhi.	MEMBER
38.	Director (TC) Central Water Commission, Room No. 317 (S), Sewa Bhawan, R. K. Puram, New Delhi – 110066	Member-Secretary

Core Group of IWW-2024		
1.	**Secretary** Department of WR, RD&GR, Ministry of Jal Shakti, S. S. Bhawan, New Delhi	CHAIRPERSON
2.	**Chairman** Central Water Commission, Sewa Bhawan, R. K. Puram, New Delhi	MEMBER
3.	**Joint Secretary (Admin.)** Department of WR, RD & GR, Ministry of Jal Shakti, S. S. Bhawan, New Delhi	MEMBER
4.	**Director General,** National Water Development Agency, Palika Bhawan, R. K. Puram, New Delhi	Member -Secretary

Event Planner

8th INDIA WATER WEEK-2024

17-20 September, 2024 at Bharat Mandapam, Pragati Maidan, New Delhi

Theme: "Partnerships and Cooperation for Inclusive Water Development and Management."

DAY-1		10.30 hrs. to 11.30 hrs.	11.45 to 12.45 hrs.	12.50 hrs.	LUNCH BREAK (13.00 hrs. to 14.00 hrs.)	14.00 to 15.15 hrs.	15.30 to 17.00 hrs.	17.00 to 18.30 hrs.
Tuesday September 17, 2024	Plenary Hall	INAUGURAL SESSION (IN) Plenary Hall	MINISTERIAL PLENARY (MINPL) Plenary Hall	INAUGURATION OF EXHIBITION (Hall – 12A)		GLOBAL WATER LEADERS' PLENARY (GWLPL-I) Plenary Hall	Audi-I GLOBAL WATER LEADERS' PLENARY (GWLPL-II)	CF-1
	Audi-1						WC-1	WC-2
	Hall-1 (MR-6)						WC-3	WC-4
	Hall-2 (MR-7)						PF-1	PF-2
	Hall-3 (MR-19)					Cultural Event (Plenary Hall) & Dinner (Hall-12) from 19.00 hrs. to 21.00 hrs.		

DAY-2		Session-1 (10.00 to 11.30 hrs.)	Session-2 (11.45 to 13.15 hrs.)	LUNCH BREAK (13.15 hrs. to 14.15 hrs.)	Session-3 (14.15 to 15.45 hrs.)	Session-4 (16.00 to 17.30 hrs.)
Wednesday September 18, 2024	Audi-1	CF-2	VF		CF-3	WLF-2
	Hall-1 (MR-6)	WC-6	WLF-1		WC-11	WC-10
	Hall-2 (MR-7)	PF-3	PF-4		PF-5	PF-7
	Hall-3 (MR-19)	WC-5	WC-9		WC-8	WC-12
	Hall-4 (MR-10)	CF-4 [6th INDIA EU Water Forum (10.00 hrs. to 17.00 hrs.)]			CF-4 [6th INDIA EU Water Forum (10.00 hrs. to 17.00 hrs.)]	

DAY-3		Session-1 (09.30 hrs. to 11.00 hrs.)	Session-2 (11.15 hrs. to 12.45 hrs.)	LUNCH BREAK (12.45 hrs. to 13.30 hrs.)	Session-3 (13.30 hrs. to 15.00 hrs.)	Session-4 (15.00 hrs. to 16.45 hrs.)
Thursday September 19, 2024	Audi-1	WLF-3	WLF-5		WLF-7	WLF-9
	Hall-1 (MR-6)	PF-6	PF-8		WC-17 & WC-18	WC-7
	Hall-2 (MR-7)	WC-13	WC-14		WC-15	WC-16
	Hall-3 (MR-19)	WLF-4	WLF-6		WLF-8	SUF
					VALEDICTORY SESSION (VA) (Audi-2) (17.00 hrs. to 17.35 hrs.) Tentative High Tea 17.35 hrs. (Hall 12)	
DAY-4 Friday September 20, 2024		STUDY TOUR (20th Sept., 2024) (Tour 1-Agra, Tour 2-Delhi Local) 07.00 hrs. to 20.00 hrs.				

PLENARY HALL (3000 PAX)	AUDI – 1 (600 PAX) AUDITORIUM – 1	AUDI – 2 (900 PAX) AUDITORIUM –2	HALL – 1 (200 PAX) (MR-6)	HALL – 2 (200 PAX) (MR-7)	HALL – 3 (200 PAX) (MR-19)	HALL – 4 (MR-10)

CF-COUNTRY FORUM (4)	YF-YOUTH FORUM (1)
CF1 Country Session by DENMARK	**Session Youth** Program for School Children
CF2 Country Session by ISRAEL and Australia	SUF-STARTUP FORUM (1)
CF3 Country Session by Singapore Guyana, Zimbabwe, Vietnam, Indonesia, Ethiopia, Morocco, Oman, Cambodia etc.	**SUF** Session for Startups to pitch their innovative ideas and solutions
CF-4 6th INDIA EU Water Forum	WC-WATER CONVENTION (17)
WLF - WATER LEADER FORUM (9)	**WC1** (i) Public Private Partnership (PPP) for Efficient Water Management in Urban and Rural Areas (ii) Need for Cooperation and Coordination for Water Security keeping in view of the Climate Change Scenario
WLF1 Integrated Surface and Ground Water Management	**WC2** (iii) Synergizing Cooperation Across Boundaries (iv) From Water Conflicts to Cooperation
WLF2 Demand Management and Water Use Efficiency	**WC3** (i) Integrated planning and conjunctive use of Surface Water and Ground Water (ii) Role of Inter Basin Water Transfer in Water Resources Development
WLF3 Partnerships for Accelerating Innovation in Water Sector	**WC4** (iii) Inclusive Water Planning (iv) Issues in Water Scarcity and way forward (iv) Issues in Water Scarcity and way forward
WLF4 Integrated Flood Management	**WC5** (vi) Knowledge Transfer and Skill Development in Water Sector (vii) Designing Optimal Cropping Pattern for Efficient Water Resource Utilization
WLF5 Sustainable Water Management for Industry and Businesses	**WC6** (i) Expansion of Micro Irrigation Infrastructure (ii) Expansion of Micro Irrigation Infrastructure (iii)Water Infrastructure Development – Technological, Ecological, Financial Challenges etc.
WLF6 Partnerships for Climate Action in Water Sector	**WC7** (iv) Operation and Management of Water Assets and Infrastructure (v) Source Sustainability -Irrigation, Domestic Use etc.
WLF7 Partnership and Co-operation for Integrated Water Resources Management	**WC8** (vi) Water Sanitation and Hygiene (WASH) (vii) Improvement in Water Use Efficiency in Existing Water Infrastructure
WLF8 Public Private Partnerships in Water Sector	**WC9** (i) Role of Advanced Technologies in Water Security (ii) Managing Climate Uncertainty in Water Sector (iii) Risks in Water Sector due to Climate Change
WLF9 Circularity in Wastewater Management	**WC10** (iv) Utility of Artificial Intelligence and Geospatial Tools for Decision Making (v) Vulnerability of Water Bodies, Spring, Glaciers etc. due to Climate Change (vi) Participatory Precision Water Management for Ensuring Water Security
PF-PRACTITIONER'S FORUM (8)	**WC11** (i) Ground Water Assessment — Tools & Techniques (ii) Challenges in Sustainable Management of Ground Water (iii) Water Security Plans at Local Level
PF1 Sustainable River Health Management	**WC12** (iv) Ground Water Quality Related Challenges and Solutions (v) Ground Water Management Plans
PF2 Partnerships with Community for convergent action	**WC13** (i) Water Infrastructures – Financing and Operation & Maintenance Models (ii) Role of Policy in Water Security (iii) Convergence of Various Stakeholders in Water Sector
PF3 Integrated Water Management in Agriculture – Irrigation 4.0	**WC14** (iv) Beneficiaries' Participation in Water Planning and Management (v) Role of Women in Management of Water Resources (vi) Social Equity and Inclusion in the Water Sector
PF4 Springshed Management and Conservation Initiatives for Hilly States	**WC15** (vii) Harnessing Traditional Knowledge for Water Conservation (viii) Institutional Water Regulation Mechanism
PF5 Open, Integrated and Shared Water Data Informatics	**WC16** (i) Glacial Lake Outburst Flood Risks and Mitigation (ii) Challenges in Management of Floods & Droughts
PF6 Achieving Universal Access to Drinking Water in Urban and Rural Areas	**WC17** (iii) National Disaster Managements Policies and Action Plan (iv) Risk to Water Infrastructure due to Hydrological Changes in view of Climate Change and it's Management **WC18** (v) Coastal Area Management (vi) Contingency Plans and Post-Disaster Management Interventions for Smallholder Agriculture
PF7 Partnerships and Cooperation with NGOs for inclusive Water development	
PF8 "Water Prosperous World : Synergising Hrit Actions for Ecological Sustainability and Human Wellbeing"	

TEAM INVOLVED IN PREPARATION OF POST SESSION PROCEEDINGS OF 8th INDIA WATER WEEK-2024

- Shri Baleshwar Thakur, DG, NWDA.
- Shri Neeraj Kumar Manglik, Chief Engineer (HQ), NWDA.
- Shri Dalbir Singh, Director, IEC, DoWR, RD&GR, MoJS.
- Shri Shajatnan K.H., Director (Technical), NWDA.
- Shri Mahesh Kashyap, Under Secretary, IEC, DoWR, RD&GR, MoJS.
- Shri Hari Om Varshney, AD-IWW, NWDA.
- Shri R.K. Jain, Head, IWW Secretariat.
- Shri Nagesh Mahajan, Consultant, IWW Secretariat.
- Shri. R.P Singh, Consultant, IWW Secretariat.
- Shri Himanshu Arora, JAO, NWDA & IWW Secretariat.
- Shri Dalip Singh, Secretariat Assistant, IWW secretariat.
- Shri Danish Fazal, Office Assistant, IWW Secretariat.

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