

# JALANSH



The Monthly Newsletter of Central Water Commission

# **Contents**

- International Dam Safety Conference- 2019
- हिन्दी में प्रथम तकनीकी संगोष्ठी
- e-PAMS National Workshop
- Project Approval
- Project Monitoring
- National Water Awards
- Water Sector in News
- Launch of CWC Website
- Spain Visit
- Role of CWC in BIS Code development
- India-EU Joint Working Group
- Reservoir Monitoring
- Initiatives from States-Mission Kakatiya
- Gallery
- Web Links to refer
- Administrative News
- History



S. Masood Husain, Chairman, CWC

# Message

CWC in association with Water Resources Department, Govt. of Odisha and the World Bank organized the International Dam Safety Conference (IDSC) - 2019 at Bhubaneswar during 13-14th Feb, 2019 under the aegis of Dam Rehabilitation & Improvement Project (DRIP). The event was extremely successful wherein more than 725 delegates from 29 countries participated. Apart from the technical sessions, several key documents including Guidelines, Emergency Action Plan(EAP) and O&M Manuals for various dams were also released during the event. This was 5th such conference organized in India under DRIP which has been successful in generating awareness

related to dam safety aspects in the country and sharing of Internationally recognized best practices and paving way for their adoption in Indian context. Next conference in the series would be organized in New Delhi in year 2020 in association with International Commission on Large Dams (ICOLD).

The overall implementation, supervision, and coordination of DRIP is entrusted to CWC.
Considering the success of the ongoing DRIP,
Government of India has formulated a proposal for Phase-II and Phase-III of DRIP with a financial outlay of over Rs. 10,211 crore to rehabilitate around 700 dams for which the World Bank has agreed for continuation of support.

The Advisory Committee of MoWR,RD& GR on Irrigation, Multipurpose and Flood Control Projects in its 141st meeting held on 11th Feb, 2019 has accepted the revised cost estimates for various important Irrigation and Multipurpose projects such as Polavaram, Lakhwar, Jamrani along with the flood control projects in the State

of Uttar Pradesh.

Embarking upon one of the key e-Governance initiatives, CWC launched the web-based Project Appraisal Management System (e-PAMS) to ensure transparent, expeditious and accountable appraisal process during a National Workshop on 25.02.19 for apprising the stakeholders. A project of Govt. of Rajasthan is already being processed on this system and I urge all the States/Central Govt. organizations to use the system for achieving the envisaged benefits.

Recently, a number of officers of Central Water **Engineering Services** (CWES)-Group A have been promoted to HAG and SAG level and have been subsequently posted in various Central govt. organizations viz. CWC, Godavari River Management Board (GRMB), Krishna River Management Board (KRMB) and newly established Cauvery Water Management Authority(CWMA). I congratulate all and convey my best wishes to them for their new assignments.



# 6th INDIA WATER WEEK 2019

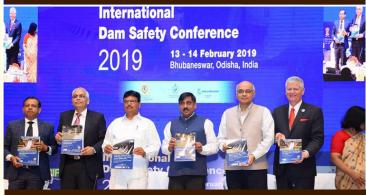
Water Cooperation-Coping With 21st Century Challenges

September 24th-28th, 2019, Vigyan Bhawan, New Delhi



# International Dam Safety Conference(IDSC)-





Release of Publication during Inaugural Function of IDSC on 13.2.19 at Bhubaneswar, Odisha

The two-day International Dam Safety Conference 2019 was organized during 13-14 February, 2019 at Bhubneswar, Odisha under the aegis of Dam Rehabilitation and Improvement Project (DRIP:

https://damsafety.in). More than 725 delegates including leading dam owners and policymakers, dam professionals, Scientists & academia took part in the Conference. This included about 100 international delegates from 29 countries like Spain, Japan, Canada, Australia, France, Switzerland, Laos PDR, Srilanka, Indonesia etc. An exhibition showcasing products, technology, instruments related to dam safety was also held

# 39th Meeting of National Committee on Dam Safety

39th meeting of National Committee on Dam Safety (NCDS) was held on 12nd February 2019 at Bhubneshwar (Odisha), under the Chairmanship of Shri S.Masood Husain, Chairman, CWC and Chairman of the NCDS. Participants from CWC, MoWR, RD&GR and SDSO's of member states viz. Bihar, Uttar Pradesh, Maharashtra, Odisha, Tamilnadu, Kerala and Kerala etc. were also present during the meeting. Principal Secretary, WRD, Odisha welcomed all participants. Issues related to Health Status Report of the dams, Emergency Action Plans (EAPs), dams of national importance, Dam Safety Review Panel and National Register of Large Dams were discussed during the meeting. A presentation on DHARMA was also made for the benefit of members.







Sh. S. Masood Husain, Chairman, CWC, during Plenary Session on Emerging Challenges in Dam Safety Management

during the 2-day event . Dam Health and Rehabilitation Monitoring Application (DHARMA) was showcased through a special media coverage. DHARMA is a software tool for asset management developed to capture authentic data pertaining to all large dams in India helping in regular review of the safety aspects of the dams. Various Guidelines, Emergency Action Plan(EAP) and O&M manuals were released during the event.

Next Dam Safety Conference would be organized in association with International Commission on Large Dam(ICOLD) in year 2020 at New Delhi.

# **Publication of Guidelines by CWC**

- Guidelines for Assessing and Managing Risks associated with Dams
- Handbook for Assessing and Managing Reservoir Sedimentation
- Inspection Manual for Dam Field Engineers after Seismic Event, Maithon Dam, Damodar Valley Corporation

# **Publication of O&M Manuals**

- Idamalayar (Kerala),
- Servalar (Tamil Nadu)
- Ashoknallah (Odisha)
- Maithon (Jharkhand)
- Almatti (Karnataka)

# Proposed DRIP Phase II and Phase III

| States                  | 18              |
|-------------------------|-----------------|
| Dams for Rehabilitation | 687             |
| Estimated Cost          | Rs 10,211 Crore |

# **Publication of EAPs**

- Kerala Kallarkutty
- Lower Periyar
- Kundala
- Madupetty
- R A Headwork **Ponmudi**
- **Anayirankal**
- Kodayar Nadu
  - Odisha Hirakud Dam
- Jharkhand Konar
- Karnataka Bhadra
- **H B Hello**
- Hidkal
- Malaprabha
- Narayanpur Votehole

# हिन्दी में प्रथम तकनीकी संगोष्ठी

केन्द्रीय जल आयोग द्वारा दिनांक 7.2.19 को हैदराबाद में हिन्दी में "जल संरक्षण हमारी ज़िम्मेदारी" विषय पर प्रथम तकनीकी संगोष्ठी का आयोजन किया गया।

तकनीकी संगोष्ठी के मुख्य अतिथि श्री एस मसूद हुसैन, माननीय अध्यक्ष, केन्द्रीय जल आयोग थे। माननीय अध्यक्ष महोदय ने तकनीकी संगोष्ठी का उदघाटन करते हुए अपने अध्यक्षीय संबोधन में जल संरक्षण के विभिन्न पहलुओं तथा तकनीकी कार्यों को राजभाषा हिन्दी में करने के प्रचार प्रसार की आवश्यकता से प्रतिभागियों को अवगत कराया।

इस अवसर पर अपने स्वागत संबोधन में श्री मोती लाल, संयुक्त सचिव, केन्द्रीय जल आयोग ने कहा कि भारत जैसे विशाल लोकतांत्रिक देश में सरकार द्वारा चलाई जा रही योजनाओं का लाभ देश के अंतिम व्यक्ति तक पहुंचाने के लिए भाषा का अत्यधिक महत्व है।

संगोष्ठी में दो तकनीकी सत्र आयोजित किए गए जिनमें तकनीकी अधिकारियों ने तकनीकी संगोष्ठी के मुख्य विषय से संबंधित उप विषयों पर व्याख्यान प्रस्तुत किए। प्रथम सत्र की अध्यक्षता श्री आर.के. जैन, अध्यक्ष, गोदावरी नदी प्रबंधन बोर्ड ने की तथा द्वितीय सत्र की अध्यक्षता श्री एन.के. माथुर, सदस्य (अभिकल्प एवं अनुसंधान), केन्द्रीय जल आयोग ने की।

संगोष्ठी में निम्नलिखित अधिकारियों ने व्याख्यान प्रस्तुत किए:-

- 1. श्री जितेंद्र पंवार, निदेशक, बंगलूरु
- 2. श्री एम रघुराम, अधीक्षण अभियंता, के.ज.आ., हैदराबाद
- 3. श्री आर. थंगमनी, निदेशक, के.ज.आ., कोयम्बट्टर
- 4. श्री रमेश कुमार एम, निदेशक(अभिकल्प एवं अनुसंधान) के.ज.आ. नई दिल्ली
- 5. श्री पंकज शर्मा, निदेशक, नदी आंकड़ा निदेशालय-II के.ज.आ. नई दिल्ली
- 6. श्री डी.एस. चास्कर, निदेशक, के.ज.आ., गांधी नगर
- 7. श्री आदित्य शर्मा, निदेशक (प्रशिक्षण) के.ज.आ. नई दिल्ली
- 8. श्री राजेश कुमार, निदेशक (अंतर्राज्यीय मामले -II) के.ज.आ. नई दिल्ली
- 9. श्री राजीव सिंघल, निदेशक, के.ज.आ., हैदराबाद

# e-PAMS National Workshop

Techno-economic appraisal of Major and Medium Irrigation, Flood Control and Multi-Purpose Projects having Inter-State ramifications for subsequent acceptance thereof by the Advisory Committee of Ministry of Water Resources, RD&GR is one of the key functions of Central Water Commission. Appraisal of such projects leads to finalization of technically sound and bankable DPRs for deriving the intended benefits like irrigation, drinking water, hydro-power, flood protection etc.

Earlier in January 2017, Central Water Commission brought out the revised version of its "Guidelines for Submission, Appraisal and Acceptance of Irrigation and Multi-purpose Projects" based on deliberations/discussions held within CWC in consultation with State Governments, Central Government Agencies and other stakeholders.

One prominent feature of the above Guidelines is the provision for online submission of project proposals through the web-enabled e-PAMS (Project Appraisal Management System) in alignment with the concept of e-Governance.

A National Workshop on e-PAMS was organized by CWC on 25.2.19 at CWC, HQ, New Delhi for familiarization of all stakeholders/users including the State Governments. Delegates from State Governments, MoWR, RD & GR, specialized directorates of CWC at headquarters and field organizations of CWC participated and deliberated in the National Workshop. The e-PAMS was also formally launched during the workshop.

There are three modules in the e-PAMS, one each for the Irrigation & Multi-purpose Projects, Flood Control/Coastal Protection Projects including Projects dealt with by the Ganga Flood Control Commission



श्री मोती लाल, संयुक्त सचिव, के.ज.आ., श्री एन के माथुर, सदस्य (अभिकल्प एवं अनुसंधान), के.ज.आ., श्री एस मसूद हुसैन, अध्यक्ष, के.ज.आ., श्री आर.के. जैन, अध्यक्ष, गोदावरी नदी प्रबंधन बोर्ड, श्री आर.के. गुप्ता ,सदस्य सचिव, पोलावरम परियोजना प्राधिकरण एवं श्री डी. रंगारेड्डी , मुख्य अभियंता , कृष्णा और गोदावरी नदी बेसिन संगठन , के.ज.आ. 7.2.19 को हैदराबाद में हिन्दी में "जल संरक्षण हमारी ज़िम्मेदारी" विषय पर आयोजित प्रथम तकनीकी संगोष्ठी के दौरान स्मारिका का विमोचन करते हये

- 10. श्री गोवर्धन प्रसाद, निदेशक, के.ज.आ, नई दिल्ली
- 11. श्री शशांक भूषण, उप निदेशक, के.ज.आ., नई दिल्ली
- 12. श्री अजयेन्द्र नाथ त्रिवेदी, प्रबन्धक (राजभाषा) युको बैंक, कोलकाता

हैदराबाद में आयोजित हिन्दी में प्रथम तकनीकी संगोष्ठी ने अपने आयोजन के तीनों उद्देश्यों अर्थात जल संरक्षण, तकनीकी कार्यों को हिन्दी भाषा में जन-जन तक पहुंचने और हिन्दी के प्रचार प्रसार को सफलतापूर्वक हासिल किया है।

अंत में, धन्यवाद प्रस्तुत करते हुए श्रीमती रजिन्दर पॉल, सहायक निदेशक (राजभाषा) ने मुख्य अतिथि एवं मंचासीन सभी वरिष्ठ अधिकारियों का इस संगोष्ठी में पधारने के लिए आभार प्रकट किया।

(GFCC) and the Externally Assisted & National Projects.

The online submission, appraisal and both way communication through e-PAMS as per the latest guidelines following the timelines prescribed therein are expected to go a long way in maintaining the overall uniformity and conformity in the appraisal process while simultaneously ensuring efficiency and transparency, with technological ease.

Shri Rajiv Kumar, Director, Project Appraisal (Central) Directorate, is the nodal officer for e-PAMS for coordinating among all stakeholders including project proponents and appraising agencies in CWC(HQ and Regional Offices) and State Govt.



Sh. Atul Jain, CE(IBO), CWC, Sh. N.K. Mathur, Member(D&R), CWC, Sh. S.K. Haldar Member(WP&P),CWC, Sh. C.K.L. Das, CE(PAO), CWC and Dr. Kishore Kumar, Deputy Director General, NIC during the National Workshop on e-PAMS on 25.2.19 at CWC (HQ), New Delhi

# **Project Approval**

Projects accepted by the Advisory Committee of MoWR,RD&GR in the 141st Meeting, held at CWC-HQ on 11/02/2019 are summarized below.

| S No | Name of the Project   | State          | Category/<br>Type of Project          | Estd. Cost (Cr)<br>& Price Level | Project Benefits   |
|------|---|----------------|---------------------------------------|----------------------------------|--|
| 1    | Revised Cost Estimate of Polavaram<br>Irrigation Project  | Andhra Pradesh | Major Irrigation,<br>National Project | Rs. 55548.87<br>(2017-18)        | CCA- 2.91 Lakh ha<br>Al- 4.36 Lakh ha<br>Power 960 MW            |
| 2    | Revised Cost Estimate of Lakhwar<br>Multipurpose Project  | Uttarakhand    | Multipurpose,<br>National Project.    | Rs. 5747.17<br>(July 2018)       | CCA and AI- 33780 ha;<br>Power- 300 MW                           |
| 3    | Revised Cost Estimate of Jamrani Dam<br>Multipurpose Project  | Uttarakhand    | Major Multipurpose<br>Irrigation      | Rs. 2584.10<br>(May, 2018)       | CCA- 150027 ha;<br>Al- 295382 ha;<br>Power- 14 MW                |
| 4    | Construction of Basantpur-Khajuri<br>marginal Embankment on right bank of<br>river Ghaghara in Barabanki Dist.                                | Uttar Pradesh  | Flood Control                         | Rs. 68.6159<br>(2018)            | Benefited area- 5184 ha<br>Benefited population-<br>15106        |
| 5    | Revised project estimate for the construction of Khajuha Jhunjhuniya Andharpurwa marginal bund on left bank of Rapti river in Shrawasti Dist. | Uttar Pradesh  | Flood Control                         | Rs. 46.3726<br>(2016)            | Benefited area-<br>15412 ha<br>Benefited population-<br>98350    |
| 6    | Revised project estimate for the construction of Parsa Dehariya Tilakpur marginal bund on left bank of Rapti river in Shrawasti Dist.         | Uttar Pradesh  | Flood Control                         | Rs. 37.8629<br>(2016)            | Benefited Area-<br>14868.76 ha<br>Benefited Population-<br>83900 |

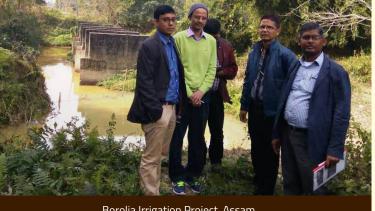
CCA- Culturable Command Area Al- Annual Irrigation

# **Project Monitoring**

CWC monitors the water resources projects under execution with central funding. During 2018-19, a total of 83 monitoring visits to on-going prioritised projects under Pradhan Mantri Krishi Sinchayee Yojana -Accelerated Irrigation Benefit Programme (PMKSY-AIBP) have been carried out by CWC till date . Based on the outcome of these visits, proposals for

Rs. 1664.205 crore have been sent to the Ministry with due recommendation of CWC.

Recently, officials of NITI Ayog were also involved in such visits.



Borolia Irrigation Project, Assam Bargi Diversion Project, Madhya Pradesh



Sh. R.K.Pachauri, CE, PPO, Sh. G.L. Bansal, Director, CWC, Sh. N.K. Vel Deputy Advisor, NITI Aayog visited Gosi Khurd Project (National Project) in Maharashtra during 20.2.19-22.2.19



Sh. R.K.Pachauri , CE (PPO), CWC, Sh. Anant Kr. Gupta, Director, CWC, Sh. S.P. Singh, DD, CWC, Lucknow and Sh. M. K. Makwana, NITI Ayog visited Saryu Nahar Pariyojana( National Project) during 5.2.19-7.2.19

# National Water Awards

Sh. Nitin Gadkari, Union Minister for Water Resources, River Development and Ganga Rejuvenation, distributed 82 National Water Awards in 14 categories jointly with Sh. Arjun Ram Meghwal, Minister of State and Sh. U.P. Singh, Secretary at New Delhi on 25.2.2019.

The prizes include a trophy and citation in all categories. Cash prizes of Rs. 2 lakh, Rs. 1.5 lakh and Rs. 1 lakh for 1st, 2nd and 3rd prize winners respectively were given in some categories. National Water Awards are instituted by MoWR, RD&GR to emphasize the importance of water resource management in India. CWC provided necessary support for evalutation of applications received in this regard.

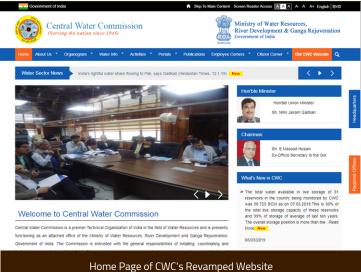
# Water Sector in News

- Over 60% of urban India's sewage enters water bodies untreated : NGT (The Statesman, 6.2.19)
- Help us to get our share in river waters, Gehlot urges Centre (The Hindu, 6.2.19)
- Solidarity fast for clean and free flowing Himalayan rivers (Statesman, 6.2.19)
- Water table decline alarming, govt steps go down the drain (Tribune, 7.2.19)
- Efforts to fast-track irrigation projects yield mixed results (Indian Express, 7.2.19)
- Pakistan's water crisis not India's fault (Tribune, 11.2.19)
- 16 'natural STPs' will treat sewage entering Yamuna (Hindustan



- CWC panel clears Rs 55,548 cr revised cost estimate for Polavaram project (Business Line, 13.2.19)
- Centre to bring 13% of large dams under World Bank's dam rehabilitation project (The Times of India, 14.2.19)
- EU, India to jointly invest Rs 323cr on 7 water projects (The Times of India, 15.2.19)
- World Bank approves Rs11K cr for improving safety of dams (The Times of India, 18.2.19)
- More and more dams planned, but where is the water? (Business Line, 21,2,19)
- Gadkari: enough funds for Namami Gange (Tribune, 22.2.19)
- All Clean Ganga projects to be finished in next 13 months: Gadkari (Hindustan Times, 28.2.19)





**High Level Delegation to Spain** 

A high level delegation led by Shri U. P. Singh, Secretary (MoWR,RD&GR) visited Spain during 17-22 February, 2019 to exchange experiences on water resources databases and systems, planning and management. Delegation also included Sh. S. K. Haldar, Member(WP&P), CWC and Sh. Rakesh Kashyap, Sr. Jt. Commissioner, NHP, MoWR,RD&GR. It visited various places/offices including Segura River Basin Authority (Murcia), Jucar River Basin Authority (Valencia), CEDEX, Centre for Hydrological Studies (Madrid), Physical Hydraulic Modeling Lab, Waste Water Treatment Plant at San Pedro del Pinatar, Tous Dam etc and held discussions with officials of Spain.



(R to L) Sh. Rakesh Kashyap Sr. Jt. Commissioner, NHP, MoWR, RD&GR, Sh. S. K. Haldar, Member(WP&P), CWC, Sh. U.P. Singh ,Secretary, MoWR, RD&GR with officials of Spain at Tous dam



Indian Delegation interacting with President of Segura River Basin Authority

# Role of CWC in BIS Code development







Central Water Commission, being an apex technical body in the water resources sector, has been playing an important role in formulation of standards in field of water resources development and management and allied areas through its participation in activities of Water Resources Division (WRD) and Civil Engineering Division (CED) of Bureau of Indian Standards (BIS). The Chairman, Central Water Commission is presently the chairman of Water Resources Division Council (WRDC). The approval of draft codes and amendments to BIS Codes for adoption and printing are being processed in CWC for approval of Chairman, CWC. Recently, 6 draft standards/amendments to BIS Codes have been approved by the Chairman for adoption and printing.

BIS:WRD-16 (681)

BIS:WRD-16 (691)

BIS:WRD-01 (11593)

BIS:WRD-01 (11594)

BIS:WRD-01 (11655)

BIS:WRD-08 (659)

Guide For Type Of Measurement, Choice Of Location And Type Of Instruments For Underground Power House

Guide for types of measurements for structures in rivervalley projects and criteria for choice and location of measuring instruments. Part 2 Concrete and Masonry Dams IS 7436 (Part 2): 1997

Hydrometry — Position Fixing Equipment for Hydrometric Boats (First Revision) IS 15352 /ISO 6420 : 2016

Hydrometry— Hydrometric Data Transmission Systems — Specification of System Requirements (First Revision) IS 16274 /ISO 24155 : 2016

Hydrometry—Open Channel Flow Measurement Using Rectangular Broad Crested Weirs (First Revision) IS 14974 /ISO 3846: 2008

Guidelines for the design of grout curtains for earth and rockfill dams, masonry dams and concrete gravity dams (First revision of IS 11293, amalgamating part 1 and part2)

# India-EU Joint Technical Working Group visits Mahanadi Delta Region

Sh. Maneesh Jaiswal and Sh. Ankit Dudeja, Deputy Directors of HSO , CWC visited Mahandi Delta Region as members of India-EU Joint Technical Working Group-PR2 for assessment of Environmental Flows during 28.1.19 to 2.2.19.

A total of 4 control structures at the head of Delta were visited along with 4 eco-sensitive area/bio-diversity hot spots within the delta region. The control structures visited were Mundali Barrage, Naraj Barrage, Jobra Barrage and Birupa Barrage.

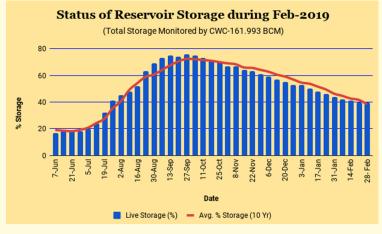
Officials of Forest Department and Water Resources Department from Government of Odisha assisted and accompanied the group in visit.

# **Reservoir Monitoring**

CWC is monitoring live storage status of 91 reservoirs around the country on a weekly basis and is issuing a bulletin every Thursday. The total live storage capacity of these 91 reservoirs is 161.993 BCM, which is about 63% of the live storage capacity of 257.812 BCM which is estimated to have been created in the country.

As per the reservoir storage bulletin dated 28.2.19, the live storage available in these reservoirs is 65.536 BCM, which is 40% of the total live storage capacity of these reservoirs. This is 112% of the live storage of the corresponding period during last year, and 104% of the average storage over the last ten years.

# Members of Joint Technical Working Group with other officials at Naraj Barrage



# Initiatives by States- Mission Kakatiya

Tanks have been the life line of Telangana owing to the state's topographical constraints. Construction of tanks in Telangana has been an age old activity since pre Satavahana era. During the Kakatiya era, the construction of tanks was carried out with utmost technical expertise. The drought affects every facet of human life having more severe effects on the rural poor.

Realizing the importance of reclamation of tanks for economic growth of the State, the Government of Telangana has taken up the programme titled Mission Kakatiya (Mana Ooru Mana Cheruvu-Our Village Our Tank) for restoring the irrigation tanks.

The objective of Mission Kakatiya is to enhance the development of agriculture based income for small and marginal farmers, by accelerating the development of minor irrigation infrastructure, strengthening community based irrigation management and adopting a comprehensive programme for restoration of tanks.

The State Govt has planned to restore 9,306 Tanks every year (20% of total tanks) with an eventual target of restoring all 46,531 tanks in 5 years, in a phased manner.

# **Photo Gallery**



CWC Officers participated in National workshop on Flood Management under Climate Change held at IIT Roorkee on 1.2.19



140th meeting of Damodar Valley Reservoir Regulation Committee (DVVRC) held under the Chairmanship of Member(RM), CWC on 5.2.19 at Kolkata



Drawing and painting competition on cleanliness organised by TBO, CWC at IEM Public School, Kolkata on 11.2.19



Ms T Rajeswari, Additional Secretary, MOWR, RD&GR reviewed the activities of M&ERO, CWC on 12.2.19 at Bhubaneswar



71st meeting of India-Bangladesh Joint Committee on sharing of the Ganga water at Kolkata on 15.2.19



Sh. S Masood Husain, Chairman CWC and Ms. T Rajeshwari Additional Secretary of MoWR, RD &GR at the inauguration of 29th WaterEx World Expo 2019 Conference, Goregaon, Mumbai on 21.2.19



Member (D&R), CWC, chaired the 34th Meeting of National Committee on Seismic Design Parameters (NCSDP) at CWC-HQ, New Delhi on 26.2.19



Member(D&R), CWC and other officers of CWC with officials of NTPC Limited regarding dam safety aspects on 27.02.2019



The Indian team lead by Sh. S. Masood Husain in the 3rd Meeting of Team of Experts from India and Nepal regarding DPR of Pancheshwar Project at Kathmandu on 27.2.19

# Web Links To Refer

IRRIGATION - Statistical Year Book India 2018, MoSPI, Gol http://www.mospi.gov.in/statistical-year-book-india/2018/181

Incorporating environmental flows into "water stress" indicator 6.4.2, FAO-http://www.unwater.org/app/uploads/2019/01/SDG6\_EF\_LOW2.pdf

UN-WATER SDG 6 Public Dialogue Report

http://www.unwater.org/app/uploads/2019/01/WWAP-Full-Report-Design\_100119-High-Res.pdf

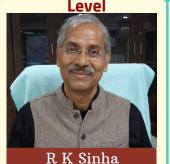
SDG 6 Synthesis Report 2018 on Water and Sanitation, UN Water

http://www.unwater.org/app/uploads/2018/12/SDG6\_SynthesisReport2018\_WaterandSanitation\_04122018.pdf

The State of Food and Agriculture(SOFA): 2018, FAO http://www.fao.org/3/I9549EN/i9549en.pdf

# Administrative News

# **Promotion to HAG**



Member (RM), CWC, New Delhi



Gupta Chairperson, Krishna River Management Board, Hyderabad

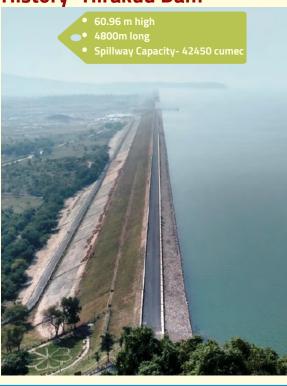
# Promotion to SAG Level

| Name of Officer | Place of Posting  |  |  |
|-----------------|---|--|--|
| Aditya Sharma   | CE, Narmada Basin Organisation, CWC, Bhopal                     |  |  |
| Sushil Kumar    | CE, Monitoring (South) Organisation, CWC, Bengaluru             |  |  |
| B P Pandey      | Member Secretary, Godavari River Management Board,<br>Hyderabad |  |  |
| Neeraj Kumar    | Secretary, Cauvery Water Management Authority, Delhi            |  |  |
| D K Tiwari      | CE, Monitoring (Central) Organization, CWC, Nagpur              |  |  |
| Vijai Saran     | CE, IMO, CWC (HQ)   |  |  |
| B K Karjee      | CE, FMO, CWC (HQ)   |  |  |

# Transfers at SAG Level

| Name of Officer   | From   | То  |
|-------------------|--|---|
| Shiv Nandan Kumar | CE, Monitoring (Central) Organisation, CWC, Nagpur | CE, Indus Basin Organisation, CWC,<br>Chandigarh          |
| Atul Jain         | CE, Indus Basin Organisation,<br>CWC, Chandigarh   | CE, PAO, CWC (HQ)   |
| Navin Kumar       | CE, IMO, CWC (HQ), New<br>Delhi                    | Member (WR), Cauvery Water<br>Management Authority, Delhi |
| C K L Das         | CE, PAO, CWC (HQ)                                  | Member (C), Ganga Floor Control<br>Commission, Patna      |

# **History- Hirakud Dam**



**Central Water Commission** 

An attached office of Ministry of Water Resources.

River Development and Ganga Rejuvenation,

Govt. of India

Background

1928-1945

Frequent destruction caused by floods in Mahanadi

Various studies by Orissa Flood Enquiry Committee, Er. M. Visveswarayya & Orissa Flood Advisory Committee

Cuttack Conference(1945) was organized to discuss the above problem, chaired by Dr. B. Ambedkar. He emphasized on damming the rivers for resolving problems of flood, drought and famine

Sh. A.N.Khosla, Chairman of CWINC recommended water resources structure on river Mahanadi at Naraj, Tikarpara & Sambalpur(Hirakud) for flood control irrigation, navigation & power generation

Hirakud foundation stone was laid on 15 March 1945 by Governor Lewis of Orissa Province

1948 1957

Recent Developments

under DRIP

1945-1948

Construction of Hirakud dam started by CWINC

Construction of Hirakud dam completed at the cost of

Rs 100.02 crore

- An additional spillway with 5 crest gates on dam's left dyke will be constructed with estimated cost of Rs. 350 crore.
- Discharge Capacity will be enhanced by additional 9512 cumec

# **Editorial Board**



- Sh. Amrendra Kumar Singh, CE (EMO)- Member
- Sh. Samir Chatterji, CE (PMO)- Member
- Sh. H. S. Sengar, Director (RM-Coordination)- Member
- Sh. Ravi Bhushan Kumar, Director (TC)- Member
- Sh. S. D. Sharma, Director (WSE)- Member
- Sh. Chaitanya K.S., DD(ISM-2)- Member
- Sh. R. K. Sharma, DD (D&R-Coordination)- Member
- Smt. Rajinder Pal Singh, AD (OL)- Member
- Sh. Shiv Sunder Singh, DD (WSE)- Member-Secretary

# **Designed & Published by**

Water Systems Engineering Directorate **Central Water Commission** 

2nd Floor(South), Sewa Bhawan, R K Puram, New Delhi-110 066 E-mail: media-cwc@gov.in



CWC.GOV.IN





