



Serving the Nation Since 1945

JALANSH

The Monthly Newsletter of Central Water Commission



Dr. B.R. Ambedkar,
Founding father of CWC

Dr. A. N. Khosla,
Founding Chairman of CWC

**Celebrating 75th year of
Central Water Commission**

75
Serving the Nation since 1945

April 5, 2020



Message

R.K. Jain
Chairman, CWC

CWC has evolved as a premier technical organization in the country in the field of Water Resources and now is in 75th year of its establishment. As part of the 75th Year celebration and considering the importance of non-structural measures for Flood Management, a workshop on "Flood Plain Zoning" was organized by Upper Ganga Basin Organisation, CWC on 17.01.2020 at Lucknow.

Flood Plain Zoning aims at demarcating zones or areas likely to be affected by floods of different magnitudes or frequencies and specifies the types of permissible developments in these zones, so as to minimize damage to life and property due to floods. The workshop was inaugurated by me and was attended by participants from different organisations such as, government departments, PSUs, academic and research institutes, agriculture universities, etc.

There have been considerable discussions on siltation and floods in river Ganga in the State of Bihar due to Farakka Barrage. DoWR, RD&GR has constituted a Committee for study on the issue under my chairmanship which is in the process of finalization of ToR for the study.

Our country has witnessed tremendous co-operation among States for water resources development and management in the past.

However, due to population increase and ever-increasing demand for water, the finite resource has become the bone of contention among the states with passage of time. Apart from well-known nine Inter-state Water Disputes Tribunals, recently disputes have also arisen on Tilaiya Dhadhar Diversion Scheme (among Bihar, Jharkhand & West Bengal) and Pennaiyar river & its tributaries (between Tamil Nadu & Karnataka). Negotiation Committees (NC) have been setup by Govt. of India under my Chairmanship for timely resolution of both the disputes as per the provisions of ISWRD Act. NCs are important platforms to address such issues amicably to resolve the disputes avoiding need for prolonged adjudication process. Both these committees are trying to resolve the matter.

CWC was first established as Central Waerways, Irrigation & Navigation Commission (CWINC) on 5th April 1945 and will be completeing 75 years of its existence on 5th April 2020. CWC will celebrate the occasion by organizing a technical seminar showcasing contributions made by CWC in the development of water resources and hydro-power in India as well as in neighboring countries.

In the New Year, more than fifty CWES Officers were promoted to their next grade. I convey my best wishes for their future assignment.

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Visit of Hon'ble Minister of Jal Shakti to Jammu & Kashmir

Hon'ble Union Minister of Jal Shakti, Shri Gajendra Singh Shekhawat visited Jammu and Pathankot during 21st - 22nd January 2020. Hon'ble Minister was accompanied by officers from DoWR, RD& GR and CWC.

Immediately after the review meeting, Hon'ble Minister proceeded to Shahpur Kandi Dam site in Punjab. On its way, the Hon'ble Minister did an aerial survey of Ranjit Sagar Dam and landed at Shahpur Kandi Dam site where he was briefed about the progress of the project achieved so far. He was further informed about the salient features of the project which will generate about 206 MW of Power and Irrigate about 32000 Ha of Land in J&K (UT) side and 5000 Ha of land in Punjab.

Thereafter, Hon'ble Minister did the aerial survey of the proposed site of the dam and barrage of the Ujh Multipurpose Project and landed at the existing Ujh Barrage site. At project site, he was briefed about the salient features of the project which will generate 196 MW of power and irrigate 16743 Ha of Kandi area of Kathua and Samba district thereby improving Socio-Economic status of the area. Hon'ble Minister stressed for early implementation of the project.

Hon'ble Minister at Ujh Project Site



Inauguration of Workshop on Flood Plain Zoning by Chairman, CWC

Since 1945 CWC has evolved as a premier technical organization in the country in the field of Water Resources and now has entered into 75th year and to celebrate the same and considering the importance of non-structural measures, a workshop on "Flood Plain Zoning" was conducted by Upper Ganga Basin Organisation, Central Water Commission in Lucknow on 17.01.2020.

The workshop was inaugurated by Shri R.K. Jain, Chairman, Central Water Commission, as Chief Guest. Dr. S. K. Jain, Director, NIH, Roorkee and Shri A. K. Srivastava, Engineer-in-Chief & HoD, UP I&WRD, Lucknow attended the workshop as Special Guest. Shri Bhopal Singh, Chief Engineer, CWC, Lucknow, and Shri Ravindra Singh, Chief Engineer, Central Water Commission shared the dais with the guests in the inaugural session. Senior Officials from various Central Govt. Ministries/Organizations (viz. DoWR, RD and GR, CGWB, NIH, NMCG, NDMA, Agriculture, etc.), State Govt. of Uttar Pradesh, Bihar and Uttarakhand (viz. Irrigation departments, SDMA, CADA, WALMI, etc.), U.P. PSUs viz. UPPCL, Research and Academic institutions (viz. BBAU, RMSI, IIT BHU) participated in the workshop. Shri R. K. Jain, Chairman, CWC discussed the importance of non-structural measures and its benefits. He further emphasized on necessity of implementation of the same on ground by state governments.



Sh. R.K. Jain, Chairman, CWC along with other members attending the workshop on Flood Plain Zoning

The Flood Plain Zoning, non-structural measure aims at demarcating zones or areas likely to be affected by floods of different magnitudes or frequencies and probability levels, and specify the types of permissible developments in these zones, so that whenever floods actually occur, the damage can be minimized, if not avoided. The workshop was well attended by participants (111 registered participants) from different fields.

Visit of Arun-III HEP (900 MW), Nepal by CWC Team Led by Chairman

A team of CWC designers led by Shri RK Jain, Chairman, Central Water Commission and comprising Shri SK Sibal, Chief Engineer, Designs (N&W), Shri Anil Jain, Director, CMDD (N&W), Shri N. S. Shekhawat, Director HCD (N&W) and Shri Manoj Meena, Deputy Director visited Arun-3 Hydro Power Project (900 MW), Nepal from 19/01/2020 to 23/01/2020 and inspected the ongoing construction works. The team had discussions with Satluj Jal Vidhyut Nigam Ltd. (SJVN Ltd) designers, project engineers on right bank slope stability measures and other issues during the visit.

The project is being developed by SJVN Ltd and CWC is providing design and engineering consultancy as a retainer consultant. The construction is going on at almost all the project components viz. excavations at dam axis, construction of diversion tunnel, surge shaft and powerhouse complex. Construction of HRT is continued at 5 different phases. Arun-3 Hydro Power Project is being constructed in Nepal by SJVN Ltd on BOT basis with installed capacity of 900MW power. This ROR project envisages construction of a 70m high dam and water will be conveyed through 9.5m diameter HRT of 11.78km length. The project envisages open to sky surge tank and an underground power house complex to house 4 turbines of 225MW each.

The works were awarded in 2017-18 in 4 different packages. Two packages are for civil works, one for hydro-mechanical works and one for electrical works. Works are scheduled to be completed by 2023. Date of commercial generation is slated as July 2023.



3rd Meeting of the Steering Committee On Performance Assessment Of Irrigation Systems Using Remote Sensing Technology

The third meeting of Steering Committee on Performance Assessment of Irrigation Systems using Remote Sensing technology was held under the Chairmanship of Secretary, DoWR, RD&GR on 15.01.2020 in New Delhi. In the meeting, the World Bank officials presented the draft Remote Sensing Guided Performance Measurement System for assessment of 10 identified Irrigation projects in India.

Mrs Maria from World Bank team informed the committee that the preliminary study for all 10 identified projects on the basis of the data received from CWC has been made and the study is a guided measurement framework for assessing irrigation performance of major schemes. She also mentioned that in this study, use of Remote Sensing is meant to look at the outcome of project, which has access to irrigation water. She discussed a set of indicators for the outcome such as

equitable access, productive use and sustained hydrological ecosystem services. Mr Mutlu from World Bank team, presented the study and informed that they have used the concept of coefficient of variation (CV) of actual evapo-transpiration (ETa) from remote sensing (spatial map of ET), to know the homogeneity and heterogeneity of the water application in a scheme. He discussed 10 indicators to get the outcomes such as Equitable and Cost effective access to beneficial water, Productive use of water and Sustained hydrological ecosystem services. He also discussed about the Equity of delivery indicator measured by the water consumption uniformity during Rabi season within irrigated command by taking coefficient of variation of 10% (suggested in literature) as threshold or benchmark by illustrating the irrigation command of Upper Bari Doab Canal, Punjab and Boradikarai, Assam.

The India EU Water Partnership (IEWP)

The India EU Water Partnership (IEWP) is an outcome of the 13th Indo-EU summit held in March 2016. Under India-EU Water partnerships various activities were identified for India EU technical collaborations.

Under the India-EU Water Partnership's Priority Area-2, a Joint Working Group involving representatives of Central Water Commission, Wildlife Institute of India, Central Inland Fisheries Research Institute and IEWP/GIZ PMU along with EU eco-hydrology experts is working towards assessments of Environmental Flows for three river basins in India. This involves pilot testing of robust methodologies based on detailed eco-hydrological and eco-hydraulic dynamics to understand the relationships between flows and aquatic habitat conditions for keystone species. For this, the field observations related to ecological, hydraulic, hydrological and morphological conditions etc. are being made by the joint team.

During 02-05 Jan 2020, the joint team undertook the field visit of the Ramganga River Basin. River cross sections, flow depths and flow velocities etc. were collected using boat mounted ADCP and also the manual observations (at shallow depth locations). Samples of aquatic faunal species (fish and micro-invertebrate) and plankton etc. were collected using manual methods (cast-nets and plankton net etc). High resolution aerial images of the study site has been obtained using a drone based photo grammetry technique to understand the combinations and sequences of stream features like pools, glide, run etc. Substrate conditions were observed at important representative sites in the basin. These comprehensive observations will feed into the habitat modelling study for the basin to assess the Environmental Flow scenarios corresponding to various ecological conditions.

India EU joint working group during field visit of Ramganga river basin



TAC Meeting for Majuli

10th visit of Technical Advisory Committee of the Brahmaputra Board (TAC-BB) to the Scheme "Protection of Majuli Island from flood and erosion of river Brahmaputra" was held during 4th January to 5th January, 2020. The Technical Advisory Committee of the Brahmaputra Board (TAC-BB) under the chairmanship of Member(RM), CWC along with other officials viz. CE(FM), CWC, Commissioner(B&B), DoWR, RD&GR, officials from Brahmaputra Board & State Govt, Professor from IIT Guwahati, etc visited the stretch of Salmara to Bessamara of the scheme "Protection of Majuli Island from flood and erosion of river Brahmaputra" on 4th Jan 2020 for advising measures for protection of the reach from recently emerged challenges concerning flood and erosion.

National Hydrology Project

Meeting of Technical Negotiation Meeting of Tender Evaluation Committee under the chairmanship of Member (RM), Central Water Commission for Consultancy services of Basin-wise Extended Hydrologic Prediction (Multiweek forecast) in Cauvery, Narmada & Yamuna basin under National Hydrology Project was held on 17th January, 2020. Technical bid of tender invited by Central Water Commission for the procurement of Real Time Data Acquisition System (RTDAS) on behalf of North Eastern States of Meghalaya, Manipur, Mizoram, Tripura, Sikkim, Arunachal Pradesh & Nagaland except Assam and in Narmada for Narmada Control Authority under National Hydrology Project was opened



Technical Advisory Committee visit to Majuli Island

on 24.01.2020 and 27.01.2020 respectively. Technical bid from four bidders in respect of RTDAS tender of NE States and Five bidders in respect of Narmada RTDAS were received and technical evaluation of these bids is under process. Request for Proposal (RFP) was received from two bidders in respect of consultancy services of Physical based mathematical modelling for estimation of Sediment Rate and Sediment Transport in Seven River Basins Ramganga, Barak, Narmada, Cauvery, and Three West Flowing rivers in western Ghats viz Kuttiadipuzha, Peechi & Mangalam Basin invited by CWC. Technical bid of RFP is under process of evaluation.

Aquatic Habitat Atlas for Perennial Rivers of India

To compile all the related information/data in respect of all fish species, planktons and benthic invertebrate, other macro-flora, classify aquatic habitats of each umbrella species based on environment of its existence, throughout the years available in identified river reaches in perennial river systems, CWC in collaboration with Central Inland Fisheries Research Institute (CIFRI) has under taken a work of preparation of Aquatic Habitat Atlas. Atlas will help in Assessing Environmental Flows in a river basin in India. Preparation of Aquatic Habitat Atlas was approved in year 2016 under National Hydrology Project (NHP), in CWC Project Implementation Plan (PIP).

In Jan-2020, CWC constituted a Technical Advisory & Review Committee (TARC) under the Chairmanship of CE, EMO comprising of officers from CWC, MoEF, Survey of India, State Fisheries Department, State forest Departments, NIH and other prominent organizations (viz NWIC etc) to guide and review the works. The work of Preparation of Aquatic Habitat Atlas will be completed within 36 months from signing of contract.

Sh. Amrendra Kumar Singh, CE, CWC chairing TARC meeting with CIFRI Officials



EIA Studies of Interlinking Projects

The 12th meeting of the Committee to Review and Monitor the progress of Environmental Impact Assessment (EIA) Studies of Par-Tapi-Narmada and Damanganga - Pinjal Link Projects assigned to WAPCOS Ltd., was held on 02.02.2020 at Gandhinagar under the Chairmanship of Chief Engineer (EMO), Central Water Commission, New Delhi. The meeting was attended by officers from NWDA, WAPCOS, Govt of Gujarat and Govt of Maharashtra. In the meeting affected villages, submergence of very small portion of the Purna Wild Life Sanctuary, Resettlement & Rehabilitation Package, non-requirement of land acquisition for feeder pipe lines, limit for downstream releases, criterions for Project Affected Persons (PFAs) etc. were discussed in respect of the draft EIA studies report of these links. Discrepancies in the reports were informed to WAPCOS, the consultant for revision.

Sh. Amrendra Kumar Singh, CE, CWC chairing 12th meeting of committee related to EIA studies of interlinking projects



Coastal Management Information System (CMIS)

Coastal Management Information System (CMIS) was approved by the Government of India under ongoing scheme "Development of Water Resources Information system (DWRIS)" of Department of Water Resources, Ganga Rejuvenation & River Development (DoWR, RD & GR). For implementation and creation of CMIS, CWC has signed an MoU with CSIS-National Institute of Oceanography (NIO), Goa for taking up work as Project Executor and with the State Governments of Goa and Maharashtra for the implementation of CMIS in their respective states as Project Facilitator. A Project Monitoring Committee (PMC) has been constituted to oversee the implementation of Coastal Management Information system in the States of Goa and Maharashtra for finalizing the site, specific list of parameters, equipment to be procured, review of project progress, acceptance of project deliverable, for suggestion of midterm correction required, if any, etc. The first meeting of PMC was convened at NIO, Goa on 30.01.2020. Shri M.K. Srinivas, Chief Engineer, KGB, CWC, Hyderabad as the chairman for Project Monitoring Committee (PMC) reviewed the progress of the implementation of CMIS. PMC members also visited the sites in North Goa for the establishment of observatory.



Site visit in North Goa by Project monitoring committee led by Sh. M.K. Srinivas, CE, CWC

Visit of CWC Team to Kopili HEP

Kopili Hydroelectric project is a 275 MW hydroelectric project which is situated in Dima Hasao district of Assam state. The project is developed and operated by North Electric Power Co-operation Limited. An incident took place on 07/10/2019, in which penstock got ruptured, resulting in flooding of Kopili power house. The power house got filled with debris due to flooding. To investigate the incident a committee has been constituted under the chairmanship of Member (Hydro), CEA. Shri.T.K.Sivarajan, Chief Engineer, CWC a member of the committee visited the site from 23-25 Jan'2020 to identify the cause of rupture of penstock and exhort remedial measures for its early restoration.

Ruptured Penstock



Ruptured Penstock

Visit of CWC Officials to Chambal Basin Dams in Rajasthan

CWC officials carried out inspection of 3 dams –Rana Pratap Sagar Dam, Jawahar Sagar Dam, and Kota Barrage Rajasthan during January 7-8, 2020 based on the request from the Water Resource Department, Govt of Rajasthan to identify various dam safety and health issues. These dams have been proposed in the upcoming DRIP Phase-II by WRD, Govt. of Rajasthan.



Review of North Koel Project

To discuss the progress & issues of North Koel Reservoir Project in the State of Jharkhand & Bihar, a meeting was taken by Hon'ble Union Minister of Jal Shakti on 17.01.2020 at New Delhi. There were discussions on the issues regarding Status of progress of various components of the balance works of the project, Status of Cabinet approval for 7th Revised Cost Estimate (RCE) of North Koel Project, Rehabilitation & Resettlement (R&R) Package and issues raised by Sh. Sanjay Kumar Jha, Hon'ble Minister, Water Resources Department, Govt. of Bihar. Hon'ble Minister emphasized to complete project within stipulated time frame. The meeting was attended by Hon'ble Minister of State, MoJS; Secretary, DoWR, RD & GR; Chairman, CWC; Member (WP&P), CWC; JS & FA, DoWR, RD & GR; Commissioner (FM), DoWR, RD & GR; CE (IMO), CWC; CE (Designs), CWC and CMD, M/s WAPCOS Ltd.



Mandal Dam under North Koel Project

Submission of PFR in Respect of Projects in Tripura

The Survey & Investigation & preparation of DPR of Haora Dam and Champai Cherra Dam Projects was entrusted to Central Water Commission (CWC) by Public Works Department (WR), Govt. of Tripura as a Deposit work as per Memorandum of Understanding, signed on 20th June 2019. The first installment of fund could be released by Govt. of Tripura to CWC on 7th July 2019. It may be pertinent to recall that the Feasibility Studies for Haora Dam Project and Champai Cherra Dam were earlier carried out by CWC and submitted to the Government of Tripura in September 1995 and October 1993 respectively, but for a different diversion site. With the passage of time, there has been a change in land use in the area and hence the need arose for revisiting the proposal for the project.

Submission of PFR of projects in Tripura by Executive Engineer, NEID-I, Silchar



The Pre-Feasibility Report of both the projects has been prepared and submitted/handed over to the Principal Secretary, Public Works Department, Govt. of Tripura on 31st December 2019. Both projects are Irrigation Scheme having additional benefits of flood protection, drinking water, industrial water & other associated benefits of pisciculture, animal husbandry, communication, tourism etc.

Project Name	River	CCA (Ha)	Irrigation Intensity	Estimated Cost(Rs. Crore)
Haora Dam Project	Haora	700	200%	50.82
Champai Cherra Dam Project	Champai Cherra	700	200%	46.44

Hindi Technical Seminar on Flood Management

Second Technical Conference on Topic "Flood Management in India" in Official Language Hindi was organized by Mahanadi and Eastern Rivers Organisation, CWC, Bhubaneswar on behalf of the Hindi Section, CWC (Head Quarters), New Delhi at NALCO Nagar, Bhubaneswar on 20.01.2020. The Conference was chaired by Shri S K Halder, Member(WP&P), CWC, New Delhi in the presence of Shri Ambarish Nayak, Chief Engineer, MERO, CWC, Bhubaneswar; Shri Aditya Sharma, Chief Engineer, NBO, Bhopal; Shri Motilal, Joint Secretary, CWC, New Delhi and Smt. Ravinder Pal, Deputy Director, CWC, New Delhi. The Conference was inaugurated with lamp lighting, followed by Welcome Address of Shri Motilal, JS, CWC, New Delhi and speeches of Shri Ambarish Nayak, CE, MERO, CWC, Bhubaneswar, Shri Aditya Sharma, CE, NBO, Bhopal, and Smt. Ravinder Pal, DD, CWC, New Delhi. Two technical sessions in Hindi was held in the Conference. About 150 officers from CWC, CGWB, NWDA, WAPCOS, NHAI and Water Resources Department, Govt. of Odisha attended the seminar



Sh. S.K. Halder, Member (WP&P) chairing Hindi Technical Seminar on Flood Management in India

Dam Rehabilitation and Improvement Project (DRIP)

CPMU along with World Bank team visited Hirakud Dam to review the quality and progress of the construction of additional spillway on the left bank of Gandhi Hillock on January 10, 2020. The team also reviewed the progress made by the dam authorities on the Rehabilitation and Resettlement works. An official meeting with Principal Secretary, Water Resources, Govt of Odisha was also held on January 10, 2020 in Bhubaneswar along with World Bank and CPMU team to discuss the ongoing DRIP pending issues and preparedness for upcoming DRIP Phase II & Phase III.



To disseminate the best dam safety practices, dam safety guidelines are being prepared by pooling the expertise available across the world. Two review meetings on draft "Guidelines on Evaluating Seismic Hazard and Geological Conditions of dam" and "Guidelines for Classifying the Hazard Potential of Dam" were held ..



Shri Nitya Nand Rai, Director, Hydrology (South), Ms. Chetna, Deputy Director, Hydrology (Central) and Ms. Payal Goyal, Assistant Director, Hydrology (South) delivered lectures during training on Design Flood Analysis under DRIP-Phase-II at Ranchi, Jharkhand from 20.01.2020 to 22.01.2020 to the officials of water resources department, Govt. of Jharkhand.



Second workshop for Development of Framework for Rapid Risk Screening of Dams was held at CWC, New Delhi during 20th Jan-31st Jan, 2020. A dedicated team comprising of World Bank risk experts, CWC officials and representatives from 6 states deliberated upon various scenarios to screen Indian dams based upon design criteria, existing conditions, safety protocols etc. This endeavour of risk based decision system would be beneficial for prioritising the resource allocation of dams.

A two day National Conference on "Policies and Strategies for Flood Management: Kerala Scenario" (Kerala FloodCon 2020) was organized in Thiruvananthapuram during 23-24 January 2020 by the Kerala Water Resources Department under the aegis of World Bank funded DRIP and National Hydrology Project (NHP). The conference was inaugurated by Hon'ble Chief Minister of Kerala and presided by Hon'ble Minister of Water Resources, Govt. of Kerala. Additional Secretary (DoWR RD & GR) also graced the occasion. Officials from World Bank, NHP and DRIP attended the conference. A presentation was made by Sh. Pramod Narayan, Project Director, DRIP on the topic "Role of Dams in Flood Risk Management" during plenary session.



10th Meeting of The Core Group on Benchmarking of Irrigation System in India

The tenth (10th) meeting of Core Group on Benchmarking of Irrigation System in India under the Chairmanship of Shri S.K. Haldar, Member (WP&P), CWC & Chairman of the Core Group was held on 23/01/2020 in CWC, New Delhi. During the meeting, he highlighted the goal of Benchmarking of Irrigation projects which is to enhance system delivery and overall productivity.

In the meeting, the progress of the States in respect of formation of their State Level Core Group (SLCG) and conducting a benchmarking study of at least 5 projects (as per the decision taken during 9th Meeting) was reviewed and discussed for 17 states who already have formed their state level core group. Accordingly, the representative from WALMI Patna, Bihar, presented the details of benchmarking of irrigation projects in Bihar namely.

- Sone Canal System (Patna Main Canal and Ara Main Canal)
- Kudra Weir Scheme
- Kamla Weir Scheme
- Phulwaria Reservoir Scheme
- Chandan Reservoir Scheme

Representative from Govt of Tamil Nadu also made a presentation on the work related to benchmarking of 4 Irrigation Projects in Tamil Nadu.

Sh. S.K. Haldar, Member (WP&P) chairing benchmarking meeting



The Core Group reviewed the state wise progress on benchmarking activities of 17 States namely Meghalaya, Gujarat, Orissa, Assam, Bihar, Himachal Pradesh, Maharashtra, Haryana, Jharkhand, Chhattisgarh, Rajasthan, Uttar Pradesh, Punjab, Kerala, Mizoram, Tamil Nadu and Nagaland who have already formed SLCG. The other states were also requested to form their SLCG and complete the benchmarking study of at least 5 projects to form their SLCG.

Joint Group of Experts (JGE) on Flood Management

A Joint Group of Experts (JGE) on Flood Management was constituted between Govt. of India and the Royal Govt. of Bhutan to discuss and assess the probable causes and effects of the recurring floods and erosion in the southern foothills of Bhutan and adjoining plains in India and recommend to both the Govts. appropriate and mutually acceptable remedial measures. The 1st meeting was held in Bhutan during 1st – 5th November 2004. During the meeting, JGE had a series of discussions and made several site visits to the Indo-Bhutan Border areas around Phuentsholing, Gomtu, Pugli, and Buxa Duar. The last meeting of JGE i.e. the 9th meeting was held during 7th – 8th January 2020 at Punakha, Bhutan.

Following are the points discussed during the 9th JGE meeting:

1. Strengthening the friendship, mutual understanding and trust between the two countries.
 2. Review of the follow up action taken on the decision of the 8th JGE meeting held in November 2018 at Guwahati.
- Compilation and integration of maps showing river system common to India and Bhutan on the scale of 1:50000.
 - Sediment load analysis of the rivers – Dhansiri, Puthimari and Manas.
 - Action taken on cause of landslide and flooding and status of remedial measures taken for Bhawanijora.
 - Review of remedial measures taken for stability assessment for Kharbandi check post, RinchendingGoenpa and Jharna slides.

Reservoir Monitoring

CWC is monitoring live storage status of 123 reservoirs of the country on a weekly basis and is issuing a weekly bulletin on every Thursday. The total live storage capacity of these 123 reservoirs is 171.091 BCM which is about 66.36% of the live storage capacity of 257.812 BCM which is estimated to have been created in the country. As per reservoir storage bulletin dated 30.01.2020, live storage available in these reservoirs is 119.434 BCM, which is 70% of the total live storage capacity of these reservoirs. The live storage available in 123 reservoirs is 156% of the live storage of corresponding period of last year and 144% of storage of average of the last ten years.

Bharat Darshan

Bharat Darshan component (2 weeks) for 31st Induction Training Program (ITP) of CWES officers started on 25.01.2020. There were total 44 trainee officers in this group, out of which 43 are recruited through 2018 ESE and one is from previous ESE. The western and Central Region of India were visited in the first week and Southern part was to be visited in next week in Feb 2020. Trainee officers visited Indira Sagar Project (ISP) on Narmada River on 25.01.2020. Foundation stone for ISP was laid on Oct - 1984 by former PM Late Smt. Indira Gandhi, just before one week of her assassination. The storage capacity of ISP is one of the largest in the country. Subsequently trainee officers were given exposure of Omkareshwar project (OSP), Narmada main canal syphon crossing the Sabarmati river, Sabarmati river front, Sardar Sarovar Project and its command and Statue of Unity etc.



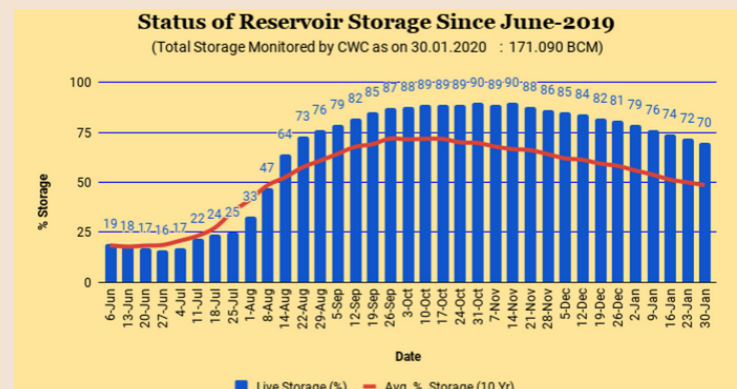
Narmada Main Canal



Cross regulator cum canal syphon across river Sabarmati



3. Erosion at Chhota Jaigaon area on the Indian Side on the left bank of river Torsa about 1 km downstream of the international border was reviewed. As informed by RGoB side, the land reclamation works are already proposed within Bhutan and JGE directed Joint Technical Team (JTT), RGoB side to share the relevant details of the proposed land reclamation project in Bhutan with JTT for reference.
4. Govt side proposed for inclusion of two new agenda items in the meeting, viz. (a) involvement of Bhutan Investigation Division (BID), CWC at Phuentsholing Bhutan in flood related activities pertaining to the rivers common to India and Bhutan and (b) works related to flood management activities pertaining to the proposed Sankosh Hydroelectric Projects in Bhutan. RGoB side however requested not to include these new agenda items as they require prior consultations with other Competent Authorities. Govt side requested for inclusion of these agenda items for deliberation in the next JGE meeting.
5. The next JGE meeting would be held at Digha, West Bengal either in the last quarter of 2020 or 1st quarter of 2021.



Water Sector- News

- Groundwater Gets The Priority It's Due (The Economic Times, 01.01.2020)
- Atal Bhujal Yojana a critical initiative (Deccan Herald, 03.01.2020)
- Release only treated water into Sutlej, drains : NGT (The Tribune, 08.01.2020)
- Repairs to ensure safety of Srisailem dam soon (Deccan Chronicle, 09.01.2020)
- Ganga delta may see water level rise by upto 140 cm in 2100, says study (Mint, 10.01.2020)
- Billions at risk as Asia's great rivers suffer (Hindustan Times, 11.01.2020)
- Ganga delta may see water level rise by upto 140 cm in 2100, says study (Mint, 10.01.2020)
- Respond to Odisha's plea on Polavaram (The Hindu, 15.01.2020)
- Water crisis : Amarinder convenes meet on 23 Jan (The Statesman, 18.01.2020)
- Drop in Punjab's ground water level sounds alarm (Morning Standard, 27.01.2020)
- Building ice stupas – Ladakh's way to conserve water (The Tribune, 31.01.2020)
- 4 hydro projects violate Ganga flow norms : CWC (The Hindu, 31.01.2020)

Republic Day Celebrations



Kolkata



Silchar



Pune



Gandhinagar

Transfer/Deputation



Dr. Rakesh Kumar Gupta
took over as Member (D&R)
CWC from Chairman, KRMB
Hyderabad



Sh. Bhopal Singh took over
the charge of Director General
NWDA w.e.f. 27/01/2020

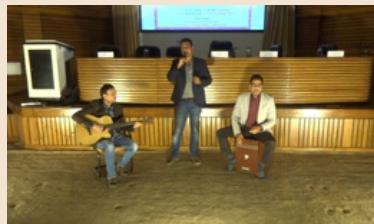
Promotions (CWES)

6 Nos. Officers- JAG to SAG
6 Nos. Officers- STS to JAG
39 Nos. Officers- JTS to STS

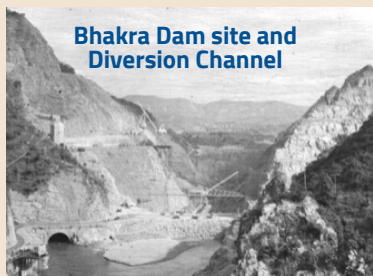


Welcome of CWC Officers (ESE-2016/17)

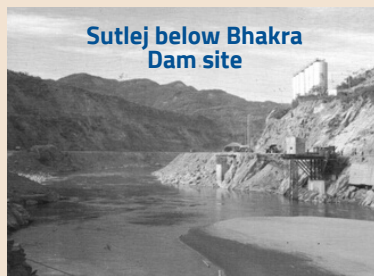
CWC farewell Committee has been recast and renamed as CWES Officers Welfare Committee with wide scope of activities to cater for the needs of CWES officers and their welfare issues. The first activity of CWES Welfare Committee was a get-together function for CWES fraternity and celebrated New Year / Makar Sankranti, 2020 along with an Introductory Welcome to newly recruited Officers of ESE 2016 & 2017 batch at Auditorium, CWC new Library Building, R.K.Puram, New Delhi on 14th January 2020. Chairman CWC, Member WP&P, and other senior officials also attended the program. Chairman CWC welcomed newly joined CWES officers of ESE 2016 & 2017 batch by presenting mementos to them. He shared his experiences in CWES and also had a word of motivation and wished them a bright career. A cultural program was also organized in which CWES officers gave some spectacular Instrumental and Singing performances alongwith play/ meme by the young CWES officers.



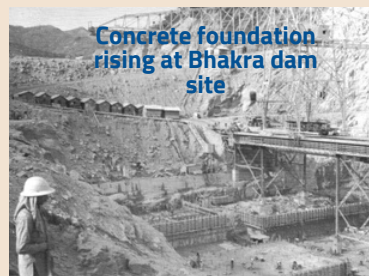
From History- few Historical Photos of Bhakra



Bhakra Dam site and
Diversion Channel



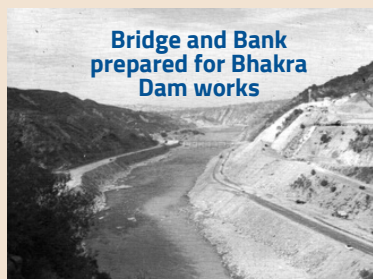
Sutlej below Bhakra
Dam site



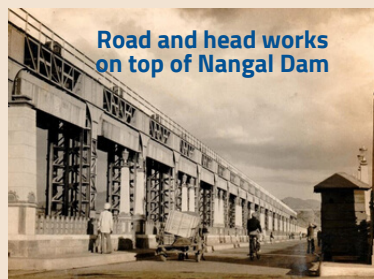
Concrete foundation
rising at Bhakra dam
site



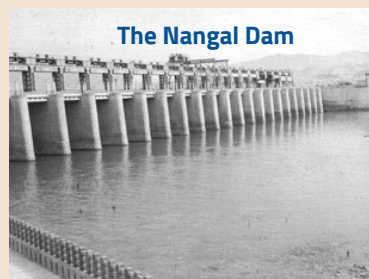
Mechanised concreting
of Dam foundation



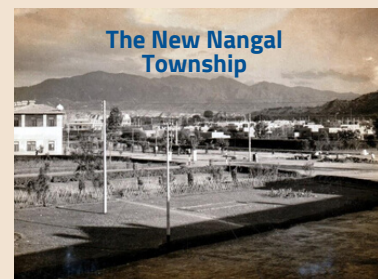
Bridge and Bank
prepared for Bhakra
Dam works



Road and head works
on top of Nangal Dam



The Nangal Dam



The New Nangal
Township



Central Water Commission

An attached office of Dept. of Water Resources,
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