

JALANSH



The Monthly Newsletter of Central Water Commission

Contents

- Workshop on Flood Management
- Reassessment of Water Availability
- Flood Situation in the Country
- Sonai Irrigation Project, Assam
- MoU with Govt. of Tripura
- HISMG Meeting for NHP
- Morphological Studies of Rivers
- 141st DVRRC meeting
- 35th NCSDP Meeting
- ELM Meeting with China
- Visit to Arun-3, HEP, Nepal
- Release of NRLD
- 19th Meeting of WRDC, BIS
- Visit to Mullaperiyar Dam
- Parwan Major Multipurpose Project
- Gararda Medium Irrigation Project
- IWRM for Brahmani-Baitarani
- 87th Annual Meeting of ICOLD
- Gallery
- Visits and Meetings
- NABL Accreditation
- News around the State
- Water Sector- News
- Initiatives of States
- Retirements
- From History



Message

Arun Kumar Sinha Chairman, CWC

We are witnessing that water is taking centre stage in public discourse as well as in discussion and action within Govt. The Hon'ble Prime Minister addressed all Sarpanchs in the country through his letter dated 8th June, 2019 to conserve rainwater during the forthcoming monsoon through various measures. He also requested them to make water conservation campaign people's movement like it has been done for Swachhata. Further, the fifth meeting of the Governing Council of NITI Aayog was held on 15th June, 2019 under the chairmanship of the Prime Minister in which first two agendas out of five i.e. Rain-Water Harvesting and Drought Situation & Relief Measures were related to Water sector.

Inspired by the Hon'ble Prime
Minister's impetus on Jal
Sanchay, the Jal Shakti Abhiyan
(JSA) has been envisaged which is a time-bound, mission-mode water conservation campaign.
During the campaign, officers, water experts and scientists from

commemoration of 75 y establishment of CWC v came into existence as to Water Irrigation and Na Commission (CWINC) in During the workshop, to technical sessions were organized; the first one

the Government of India will work together with state and district officials in India's water-stressed districts for water conservation and water resource management. The JSA aims at making water conservation a Jan Andolan through assets creation and extensive communication. More than 100 officers of Central Water Commission are being deployed for this initiative of the Govt.

Central Water Commission organized one day workshop on Flood Management at CWC, HQ, New Delhi on 26-06-2019 to provide a platform for stakeholder consultation on related aspects. The workshop was inaugurated by Sh. Gajendra Singh Shekhawat, Hon'ble Minister, Ministry of Jal Shakti in the presence of Sh. Rattan Lal Katariya, Hon'ble MoS, Ministry of Jal Shakti and Ministry of Social Justice and Empowerment, Sh. U.P. Singh, Secretary, DoWR, RD&GR, and other senior officers of DoWR, RD&GR, CWC, Ganga Flood Control Commission, Brahmaputra Board, IMD, ADB and State Govt. etc. This is the first in series of workshops which are being organized for commemoration of 75 years of establishment of CWC which came into existence as Central Water Irrigation and Navigation Commission (CWINC) in 1945. During the workshop, two technical sessions were

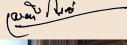
जल राक्ति मंत्रालय

emphasized on non- structural measures such as Flood Forecasting while the second one was dedicated for structural measures for flood management.

During the above event, the report on "Re-assessment of water availability in India using Space Input" was also released by the Hon'ble Minister (Jal Shakti). This study was conducted by CWC with technical support of National Remote Sensing Centre (NRSC), Hyderabad. The average annual water resource of all the 20 basins of the country has been assessed as 1999.20 Billion Cubic Meter (BCM). In addition to above, the National Register for Large Dam-2019 was also released during the month of June-2019 which is a compilation of more than 5700 large dams in the country.

Sh. S. Masood Husain, Chairman, CWC and Sh. N. K. Mathur, Member (D&R), CWC retired from Govt. Service on 30th June, 2019 after long and illustrious service of 37 and 35 years respectively. On behalf of CWC, I convey my wishes for their healthy and active retired life.

As this is the first issue of newsletter after my assumption of charge of post of Chairman, CWC, I would request the readers to give their suggestion for its continuous improvement.





The Jal Shakti Abhiyan (JSA) has been envisaged as a time-bound, mission-mode water conservation campaign.



नदी विकास एंव गंगा संरक्षण विभाग Deptt. of WR, RI Release of Report on "Re-assessment of water availability in India using Space Input" on 26-06-2019 at CWC, HQ

Workshop on Flood Management

















As per assessment of Rashtriya Badh Ayog, the total area liable to flood is around 40 Mha. Though it is not possible to achieve complete immunity from flood, it can be managed to a reasonable extent by adopting judicious mix of structural and non-structural measures. Flood Forecasting is one of the important non-structural measures which is mainly being carried out by CWC for last 60 years.

CWC organized a one day workshop on Flood Management at CWC, HQ, New Delhi on 26.06.2019 to deliberate with stakeholders about the various initiatives taken by Govt. regarding flood management and to identify measures for further improvement through stakeholder consultation. This is the first in series of workshops which will be organized for commemoration of 75 years of establishment of CWC which came into existence as Central Water Irrigation and Navigation Commission (CWINC) in 1945.

The workshop was inaugurated by Sh. Gajendra Singh Shekhawat, Hon'ble Minister, Ministry of Jal Shakti, in the presence of Sh. Rattan Lal Kataraia, Hon'ble MoS, Ministry of Jal Shakti and Ministry of Social Justice & Empowerment Sh. U.P. Singh, Secretary, DoWR, RD&GR, Sh. S. Masood Husain, Chairman, CWC and other senior officers of DoWR, RD&GR, CWC, Ganga Flood Control Commission, Brahmaputra Board, IMD, ADB and State Govt.

Inaugurating the event, Union Minister for Jal Shakti Shri Gajendra Singh Shekhawat said that challenges of climate change and unpredictability of Monsoon has emerged as one of the greatest problems faced by the country and there is a need for holistic approach to fight the challenges of both the drought and floods. He further said that the distilled wisdom of CWC should be leveraged and taken forward to find practical solutions.

Speaking on the occasion, Minister of State, Shri Rattan Lal Kataria said that in India states like Assam and North Bihar face floods every year, but with the arrival of new technology, CWC could be able to do flood forecasting 3 to 4 days in advance. He said, due to faulty planning, many of our cities face the problem of water-logging during Monsoon and appealed that local bodies should work in coordination with Central agencies to tide over this challenge. During the workshop, two technical sessions

were organized; the first one emphasized on non- structural measures such as Flood Forecasting while the second one was dedicated for structural measures for flood management.

Technical Session-1: Non-structural measures for Flood Management

- Flood Forecasting & Early Warning System-CWC
- Inundation Modelling In Central Water Commission- CWC
- Recent Developments in Meteorological Forecasting for Hydrological Forecast-IMD
- Flood Forecasting Initiative-Google Inc.

Technical Session-2: Structural measures for Flood Management

- Flood Management in Ganga Basin-GFCC
- Swan River Flood Management Project Distt. Una (H.P.)-Govt. of HP
- Structural Interventions for Protection of Majuli Island- Brahmaputra Board
- Advanced & Flexible River Training & Protection Works- M/s. MACCAFERRI
- Integrated Flood Management Works along River Brahmaputra in Assam- ADB

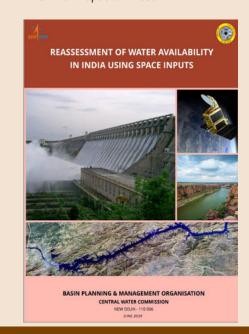
Reassessment of Water Availability of River Basins in India using Space Inputs

The Study Report for "Reassessment of Water Availability of River Basins in India using Space Inputs" was released by Hon'ble Minister (Jal Shakti) on 26-06-2019 during the workshop on Flood Management.

Water Resource Assessment (WRA) is an important exercise for proper planning, development and management of water resources in the country. This study for assessing the average annual water resources in the country was conducted by Central Water Commission (CWC) with technical support of National Remote Sensing Centre (NRSC), Hyderabad. The average annual water resource of all the 20 basins of the country has been assessed as 1999.20 Billion Cubic Meter (BCM) using state-of-the-art modeling tools and

satellite data. The methodology for reassessment was finalized by a Committee consisting of experts from CWC, NRSC, Indian Meteorological Department (IMD) and Academia. The most distinguishing features of the study are incorporation of rainfall, land use, land cover, proper estimation of demand, evapotranspiration, soil moisture and development of basin and sub-basin wise models with the help of the software namely 'Water Resources Assessment Tool (WRAT)' developed by NRSC. The outcome of this study will be very useful for proper planning and development of country's water resources. The report can be accessed from following URL:

http://cwc.gov.in/sites/default/files/main-report.pdf



Flood Situation in the Country

Central Water Commission (CWC) through its field divisions collects hydrological and hydrometeorological data on real time basis during the flood season every year. Using these data, flood/inflow forecasts are formulated for 325 locations (197 Level and 128 Inflow Forecast Stations) and disseminated to various user agencies. In addition to the data collected from the network of CWC stations, the meteorological data and Quantitative Precipitation Forecast (QPF) received from India Meteorological Department are also utilised in formulation of flood forecast.

Regular Flood Forecasting Activity commenced on 1st May 2019 in Brahmaputra and Barak basins. During the period from 1st May to 30th June 2019, 437 flood forecasts (437 Level and 0 Inflow) were issued. None of the Flood Forecasting Stations observed Extreme Flood Situation. For other Flood Category, situation is summarized as under.

Category of Flood	Occurrence of Flood at No. of FF Station	States
Severe	6	3 (Bihar, Assam, UP)
Above Normal	22	5 (Arunachal Pradesh, Assam, West Bengal, Bihar, J&K)

Sonai Irrigation Project, Assam

The DPR of Sonai Irrigation Project, Assam has been prepared by CWC in association with Geological Survey of India (GSI), National Institute of Technology (NIT), Silchar and other expert Agencies under the 'Investigation of Water Resources Development (IWRD) Project.' component of River Basin Management scheme. The DPR has been handed over to State Govt. on 31.05.2019.

This Project with a CCA of 10850 Ha is a Major Irrigation Project also having benefits of drinking water and other associated benefits of Pisciculture, Animal husbandry etc. and envisages construction of a barrage of 170 m waterway across the river Sonai. The Ultimate Irrigation Potential is 17360 Ha with an Intensity of Irrigation of 160%.





MoU with Govt. of Tripura for S&I and Preparation of DPR

A MoU was signed on 20/06/2019 between Chief Engineer (WR) of Public Works Department, Government of Tripura and Chief Engineer, Brahmaputra & Barak Basin Organisation, Central Water Commission, Govt. Of India for preparation of DPR for Construction of Dams on Upper Catchment of Haora river near Champaknagar and on Champai Cherra near Champabari in Tripura.

The Champai Cherra and Haora rivers are small tributaries of Titash River which outfalls in Comilla district of Bangladesh. Only the initial portion of its course is through the territory of Tripura. The Haora sub-basin is located in the West Tripura towards western part of the State. This sub basin is surrounded by Bangladesh towards west with Khowai sub-basin to the north and Burima (Burigang) sub-basin to the south. The catchment area of Haora river system is 499 Sq. Km in the Indian Territory. Out of this catchment area about 50 Sq. Km. lies in the hills catchment and 438 Sq. Km. which is about 89.80% of the total catchment area, lies in plains.

HISMG Meeting for NHP

1st Meeting of reconstituted Hydrological Information System Management Group (HISMG) for monitoring the activities of National Hydrology Project was held on 03-06-2019 under the chairmanship of Member (RM), CWC. Group discussed matters such as collaboration with Google, Flood Inundation modelling in Brahmaputra Basin, development of Decision Support System, Purpose Driven Studies, Training Programmes, status of finalization of hydro-met network, installation of Real Time Data Acquisition System(RTDAS), status of update of various manuals and guidelines developed under HP-I and HP-II., technical specification of equipment etc. Officers from CWC, National Project Management Unit, NRSC, IMD, CGWB, NWIC, CWPRS, NIH, World Bank and State Govt. of Uttarakhand, Tamil Nadu, Gujarat and Sikkim etc. participated in the meeting.





Morphological Studies of Rivers

Currently CWC is conducting the morphological studies of 15 rivers in the country through various IIT/NIT.

Out of these, studies of rivers Hoogly, Mahananda and Mahanadi are being carried out by IIT Kharagpur. CWC and IIT, Kharagpur jointly organized a dissemination workshop on 19-06-2019 at IIT, Kharagpur which witnessed participation from officials of State Government, River Research Institute, Kolkata Port Trust, etc. After incorporating the observations/suggestions of all stakeholders, the final report will be submitted shortly.

141st DVRRC meeting

TThe 141st meeting of Damodar Valley Reservoirs Regulation Committee (DVRRC) was held at Maithon on 13.06.2019 under the Chairmanship of Shri R.K. Sinha, Member (RM), CWC and Chairman, DVRRC. Representatives of Central Water Commission, Damodar Valley Corporation, Government of Jharkhand and Government of West Bengal participated in the meeting. Committee discussed various aspects regarding overall development and management of Damodar Basin.

Integrated regulation of Tenughat reservoir with other DVC reservoirs in Damodar Basin, issue of balance land acquisition in Tenughat reservoir area, enhancement of carrying capacity of Tenu-Bokaro link channel, implementation of agreed Guide Curve for Tenughat reservoir and finalization of data for multi-reservoir simulation study of Balpahari Dam were also discussed during the meeting. Status of "West Bengal Major Irrigation & Flood Management Project" regarding modernization of Durgapur irrigation system and flood moderation through enhancement of carrying capacity of Lower Damodar Channel, Sedimentation study for Durgapur Barrage through Physical modelling and status of repair/replacement of gates and structural rehabilitation of Durgapur Barrage were presented by GoWB. Status of works pertaining to online monitoring of water drawl for municipal and industrial uses, online application for water allocation and





desiltation of Durgapur canal were presented by DVC. Water account for municipal and industrial supplies in Damodar Basin was presented during the meeting and fresh allocations of water to 3 new firms/organisations namely Bankura Water Supply Project (Phase-II) under WBDWSIP (15.55 MGD), Venkatesh Iron and Alloys India Limited (0.364 MGD) and Rainbandh Water Supply Project, Purulia (1.56 MGD) were made.

35th meeting of National Committee on Seismic Design Parameters (NCSDP)

Member (D&R), CWC chaired the 35th meeting of National Committee on Seismic Design Parameters (NCSDP) on 19.06.2019 at CWC,HQ, New Delhi

In this meeting site specific seismic Design Parameters of four projects were approved by the Committee apart from discussions on various issues of NCSDP guidelines, SHASYS software etc. Around 50 officials from Central and State Govt. Dept./ Project authorities attended the meeting.



Expert Level Mechanism (ELM) meeting with China



The 12th Expert Level Mechanism (ELM) meeting on co-operation on trans-border rivers between India and China held during 12-13th June, 2019 at Ahmedabad. Delegation also visited Sardar Sarovar Project and Statue of Unity at Kevadia, Gujarat on 14th June 2019.

The Indian delegation was led by Shri T.S. Mehra, Commissioner (B&B), MoJS. Eleven member delegation from Chinese side and nine member delegation from Indian side participated in the meeting.



Signing of the Implementation Plan during the 12th ELM meeting by Sh. B. K. Karjee, Chief Engineer, FMO, CWC and Sh. Yang Hui, Director-General, Bureau of Hydrological and Water Resources Survey, Tibet Autonomous Region,

Visit to Arun-3, HEP, Nepal

A team of CWC officers led by Shri N K Mathur, Member (D&R) visited Arun-3 Hydro Power Project (900 MW), Nepal from 07/06/2019 to 11/06/2019 and inspected the on-going construction works. The team had discussions with SJVNL officials, project engineers on various issues. The project is being developed by SJVN Ltd and CWC is providing design and engineering consultancy as a retainer consultant.

Arun-3 Hydro-Electric Project is being constructed in Nepal with the objective of generating 900MW power from the Arun River which is a tributary of Kosi River. The Arun 3 HEP has been awarded to SJVNL on BOOT basis by Government of Nepal. CEA has accorded technical sanction to it at an estimated cost of Rs.5667.59 crore based on July 2013 Price Level. This ROR project envisages construction of a dam of 70m high from the deepest bed level which will store 13.94 MCM of water. Water will be conveyed through head race tunnel of 11.78km long and 9.5m dia. The project envisages an underground power house consisting of 4 turbines of 225MW. It also consists of open to sky surge tank.

The works have been awarded in 2017-18 mainly in 4 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 proposed as July 2023 as agreed by SJVNL with Govt. of Nepal. Presently, the project is at an early stage of construction wherein excavations at dam axis, construction of diversion tunnels, surge shaft, and powerhouse have been started. Construction of HRT and Adits are also in progress.

Release of National Register of Large Dams (NRLD)

The NRLD-2019 was released by Chairman & Members of CWC, Chairman, GFCC and Chairman, GRMB on 28th June 2019 in CWC, HQ, New Delhi.

India ranks third in the world after China and USA in terms of number of large dams. As per latest information compiled, the country has about 5745 large dams out of which 5334 are completed large dams and another 411 are in under construction stage. These dams play a very important role in the water resources development of the nation and many more such dams are required to be constructed for fully utilisation of available surface water potential of this country.

Large dams are the important water assets of the country and its inventory is important information for its proper monitoring. CWC collected and compiled salient features including information on age, height, storage capacity of the reservoir, spillway capacities which are essential data for a meaningful inspection of large dams and brought out its first publication titled "National Register of Large Dams" in April, 1990. This publication contained data up to December, 1989 of 3634 dams. Thereafter an updated version was published in December, 1994 which contained data of 4291 dams. Subsequently, a data base for all the large dams in India was developed in CWC. This data is continuously updated as and when information is received from the States and other agencies and the same is also got vetted from time to time from the States/

19th Meeting of WRDC, BIS

Chairman, CWC chaired the 19th Meeting of Water Resources Divisional Council (WRDC), BIS on 25.06.2019 at CWC, HQ New Delhi. During the meeting the status of various IS codes and other works of WRDC, BIS were discussed and reviewed. Around 40 members representing Institutions like, CWC, CWPRS, CSMRS, IIT Roorkee etc. participated in the meeting.

WRDC deals with standardization in the field of Water Resources development and activities covering utilization of water resources for all uses. WRDC advises subject areas to be taken up for formulation of standard, set up sectional committees and define its scope, functions, members, coordinate the activities of sectional committees, R&D, study work of International Organisation and implementation of established standards. The standards are discussed in various Sectional Committees under the WRDC dealing with specific subjects before carrying out formulation/revision. Approval of draft codes by Chairman CWC/WRDC is required for adoption and printing.



Organisations concerned. Now data for 5745 dams spread over 29 States and 1 Union Territory including 75 dams of National Importance have been compiled up to June 2019 and brought out in this publication with major additions, alterations/corrections and updating of information. This is the first time when NRLD was generated through Dam Health and Rehabilitation Monitoring Application (DHARMA), which is web-based asset management software to support the effective collection and management of asset and health data for all dams in the country. The licenses of DHARMA have been distributed to almost all dam owning agencies and they can directly update/add the dam details as well as also upload dam's heath status report in DHARMA.



Visit to Mullaperiyar Dam

Safety of Mullaperiyar dam between the States of Kerala and Tamil Nadu has been a critical issue between the States. Hon'ble Supreme Court vide order dated 07.05.2014 constituted a 3-member Supervisory Committee under Chairmanship of Chief Engineer, Dam Safety Organisation, Central Water Commission. The other members of the Committee are Additional Chief Secretary, WRD, Govt. of Kerala and Principal Secretary, PWD, Govt. of Tamil Nadu. The Committee meets from time to time as mandated. The 12th meeting of the Committee was held on 04th June 2019 at Kumily under the chairmanship of Sh. Gulshan Raj, CE, DSO, CWC. The members of Committee Sh. S.K. Prabakar, IAS, Principal Secretary to Government, Public Works Department, Tamil Nadu and Dr B Ashok, IAS, Secretary, Water Resources Department Government of Kerala, along with their officials attended the meeting.



Parwan Project is irrigation cum drinking water supply project located on Parwan River in Jhalawar district of Rajasthan. The Parwan River is a tributary of river Kalisindh, a main tributary of river Chambal. The project envisages construction of about 38 m high concrete gravity dam with gross storage capacity of 490 MCM out of which 50 MCM will be supplied for drinking purposes to 820 villages of Kota, Baran and Jhalawar districts of Rajasthan. Construction work is in progress for which CWC is providing consultancy for vetting of design/drawing of the project. Recently, a site visit by a team consisting officials of CWC, GSI, CSMRS along with officials of WRD, Rajasthan has been conducted during 20.06.2019 to 21.06.2019 to assess the foundation features of three dam blocks as reported by GSI, Jaipur in its mapping report.

Gararda Medium Irrigation Project

Gararda Medium Irrigation Project is a 32.80 m high earthen dam at Gararda, Rajasthan, which is meant to provide irrigation facilities to a Culturable Command Area of 9161 ha. The construction of dam was completed in 2010 but was breached in the central portion across the Dungari Nallah in a length of about 100 m when the first filling of its reservoir was being attempted. The State Government of Rajasthan has undertaken its rehabilitation for which CWC is providing design consultancy. This rehabilitation work of earthen dam using geosynthetics is one of the first of its kind in India. Recently, a site visit by the officials of CWC, GSI, and CSMRS was under taken during 20.06.2019 to 21.06.2019 to assess the solution measures of the breach.

IWRM for Brahmani-Baitarani

First meeting of the Steering Committee for Brahmani Baitarani Integrated Water Resources Management (IWRM) Phase 2 was held under the chairmanship of Member (WP&P) at CWC, HQ, New Delhi to discuss the proposal submitted by Australian Government for conducting Brahmani Baitarani IWRM Phase 2 study. Co-Basin State officials along with NRSC and CWC officers participated in the meeting.

87th Annual Meeting of ICOLD



The International Commission on Large Dams (ICOLD) is a non-governmental international organization which provides a forum for exchange of knowledge and experience in dam engineering. Every year, ICOLD holds an Annual Meeting and Symposium in a selected country. The Canadian Dam Association hosted the 87th Annual Meeting of the International Commission on Large Dams in Canada's capital city of Ottawa. Chairman, CWC visited Canada on 14.06.2019 to participate in the 87th Annual Meeting of International Commission on Large Dams (ICOLD) and International Symposium on "Sustainable and Safe Dams Around the World" at Ottawa, Canada. In addition to other officers, Sh. Bikram Patra, Deputy Director, CWC gave presentation on "Detailed Investigations and Finite Element Analysis of Idukki dam in India" during the symposium.











Gallery-International Yoga Day in CWC





















Visits and Meetings



One-day Stakeholders Consultation Meeting on "Implementation of Emergency Action Plan" for Konar Dam of Damodar Valley Corporation under DRIP was held on 28.06.2019 which was participated by more than 150 participants

Sh. S.K. Haldar, Member (WP&P), CWC and Chairman, Technical Evaluation Committee (TEC) for North Koel visited various balance components of the North Koel Project from 18th to 21st June-2019 with officers from CWC, WAPCoS, State Govt



Under India-EU Water Partnership (IEWP), the 1st meeting of Tapi River Basin Committee was organized on 18-6-19. It was chaired by CE (BPMO), CWC, with members from CGWB, states (Maharashtra, MP, and Gujarat) and EU representatives.

NABL Accreditation



With the aim to streamline and standardize water quality testing labs of CWC, several labs have got NABL accreditation in accordance with ISO/IEC 17025:2017. During June, 2019, lab at Nagpur was also accredited. Now, CWC has 12 NABL accredited labs across the country.

News around the State



On 21st June, 2019, Sh. K. Chandrasekhar Rao, Chief Minister of Telangana inaugurated Kaleshwaram Project at Medigadda Barrage in the presence of Governor Sh. ESL Narasimhan, Sh. Devendra Fadnavis, CM of Maharashtra and Sh. Y.S. Jagan Mohan Reddy, CM of Andhra Pradesh. The project is having CCA of 738851 Ha in 13 districts of State and it will also stabilize irrigation in 762028 Ha of land under different projects. In addition to this, Project will also provide 40 TMC (1133 MCM) of drinking water to Hyderabad, Secundarabad and villages in enroute and 16 TMC of industrial water.

Water Sector- News

- After Swachh Bharat, in the pipeline: Jal Shakti, Nal Se (Business) Standard, 01.06.2019)
- From Swachh to 'Nal se Jal' (The Hindu, 06.06.2019)
- Govt. to provide clean drinking water to all by 2024 (Asian Age, 12.06.2019)
- Polavaram project will be completed in 2021 (The Hindu, 21.06.2019)
- Kaleswaram project to be inaugurated today (Millenium Post,
- Govt. has sanctioned 298 projects under clean Ganga drive: Govt (The Statesman, 25.06.2019)
- Give 9.19 tmcft Cauvery Water to T.N. (The Hindu, 26.06.2019)
- Centre set to roll out 'Jal Shakti' scheme for water-starved areas ((The Hindu, 27.06.2019)

Initiatives of States (Jalamrutha - Karnataka)



On 28th Feb, 2019, Karnataka launched a major water conservation scheme titled 'Jalamrutha' which focuses on drought-proofing measures, including protection and rejuvenation of waterbodies. Water conservation strategy under this scheme comprises four components of water literacy, rejuvenation of waterbodies, creation of new waterbodies as well as development of watersheds and afforestation activities.

Under Jalamrutha, Govt. of Karnataka is rejuvenating 14,000 lakes across the State and 20000 check dams are to be constructed for rainwater harvesting this year. The Government of Karnataka has decided to declare 2019 as the 'Year of Water' to emphasize the importance of water. Under this movement, various activities and campaigns related to water conservation, protection and rejuvenation of waterbodies will be taken up through government departments; educational institutions and NGOs.





Sh. S. Masood Husain, Chairman, CWC retired on 30-06-19. He graduated in Civil Engineering in 1979 from Aligarh Muslim University with Gold Medal for the Academic Year. Later he obtained his Master's Degree in Water Resources Engineering from IIT, Delhi.

He joined Central Water Engineering Services Group 'A' in 1982 as Assistant Director. He served in many organizations of Ministry viz. CWC, GFCC, NWDA, Ministry (Proper) before becoming Chairman of CWC. He also served as first Chairman of Cauvery Water Management Authority (CWMA) on additional charge.



Sh.N.K.Mathur Service Period 05-Apr-84 to 30-Jun-19

Sh. N. K. Mathur, Member (D&R), CWC retired from Govt. Service on 30-06-19. He did his graduation in Civil Engineering from MBM Engineering College, Jodhpur and Post-Graduation in Water Resources Engineering with Honors from University of Roorkee (Now IIT Roorkee). He joined Central Water Engineering(CWE) Group 'A' Service in

April, 1984. He worked in various capacities in CWC, Ministry and GRMB before becoming Member (D&R), CWC in year 2017.

From History- Sh. Kanwar Sain



Dr. Kanwar Sain was 2nd Chairman of CWC (erstwhile CWINC and CWPC) after Dr. A.N. Khosla. Born at Tohana (District Hissar) on 2nd Jan, 1899, he was educated at D.A.V. College, Lahore and Thomson College of Civil Engineering, Roorkee (now IIT Roorkee). Before joining CWC, he worked with Govt. of Punjab and State of Bikaner. He pursued the case of Rajasthan to get its share of water under Bhakra Project. He joined CWC on 7th April, 1949 and was initially engaged in setting

up a world class Design & Research Wing in Central Water Commission on similar lines of United States of Bureau of Reclamation (USBR). During this period he also worked as Chief Engineer of Hirakud Dam project. He was Chairman of CWC from 17th June, 1953 to 15th Oct, 1958. During this period, various activities such as Flood Forecasting, etc. was started by the Commission. During his tenure, he saw considerable growth of the organization which expanded by 20 times. At that time, the total hydropower potential in India was estimated as 3000 MW only. He considered it to be very low and worked towards identification of actual potential which was revised many fold since then



Receiving Padma Bhushan from President of India in 1956

and currently it stands around 148 GW. During his life-span of 80 years Dr. Kanwar Sain won great honours, including Padma Bhushan in 1956. He also served as Vice President of International Commission on Irrigation and Drainage during 1954-57 and President of Institute of Engineers India in 1956. He was awarded Honorary Life Membership by the American Society of Civil Engineers and Honorary Life Fellowship by the Institution of Engineers India.

The University of Roorkee, conferred on him the Honorary Doctorate of Engineering. He was involved in major projects-viz. Damodar Valley, Rajasthan Canal, Hirakud Dam, Narmada Project, Bhakra Dam etc. He also remained associated with the Mekong Development Project for nine years as an UN expert. He conceptualized Rajasthan Canal (now Indira Gandhi Nahar Project (IGNP)). Rajasthan Govt. has named one of the lift canals on his name under IGNP.

Central Water Commission

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

Editorial Board

- Sh. Anupam Prasad, CE (HRM)- Editor-in-Chief
- Sh. Amrendra Kumar Singh, CE (EMO)- Member
- Dr. Samir Chatterjee, CE (PMO)- Member
- Sh. H. S. Sengar, Director (RM-Coordination) Member Smt. Rajinder Paul AD (OL) Member

Designed & Published by

Water Systems Engineering Directorate **Central Water Commission**

- Sh. Ravi Bhushan Kumar, Director (TC)& (WSE)- Member
- Sh. Chaitanya K.S., DD(ISM-2)- Member
- Sh. R. K. Sharma, DD (D&R-Coordination)- Member
- Sh. Shiv Sunder Singh, DD (WSE)- Member-Secretary

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









