



# e-Sanchar















MONTHLY NEWSLETTER

April 2022





## **WAPCOS PARTICIPATION** IN GOVERNMENT OF INDIA **SCHEMES**



**Smart City** 

- Guwahati, Assam
- Shimla, Himachal Pradesh
- New Delhi
- Kohima, Nagaland
- Aizawl, Mizoram
- Thoothukudi, Tamil Nadu



Atal Mission for Rejuvenation and Urban **Transformation** 

- Madhya Pradesh
- **Uttar Pradesh** 0disha
- Bihar Rajasthan
- Andhra Pradesh
- Haryana
- Telangana

- Meghalaya
- Kerala

#### VISION

"A Global Leader in Consultancy and Engineering, Procurement & Construction (EPC) providing Integrated & **Customized Solutions** for Sustainable Development of Water, Power and Infrastructure Projects"

#### **MISSION**

"Sustained Profitable Growth, Excellence in Performance, Use of State-of-the-art Technical Expertise, Innovativeness and Capacity Building to Meet Society's Needs Globally"



Pradhan Mantri Awas Yoiana

Deen Dayal

Jyoti Yojana

Upadhyaya Gram

- Gujarat Uttar Pradesh
- Chhattisgarh **Jharkhand**
- Raiasthan

- Uttarakhand

- Uttar Pradesh = Assam
- **Jharkhand** Himachal
- Rajasthan Sikkim Kerala

- Tripura Karnataka
- Pradesh
  - Haryana
  - Nagaland Maharashtra = Manipur
- Bihar
- - Andhra Pradesh



Himachal Pradesh Jammu & Kashmir

West Bengal

Tamil Nadu

- New Delhi & Goa
- Nagaland
- Sikkim
- Tamil Nadu

**Jharkhand** 

- Telangana
- Maharashtra
- Chhattisgarh
- Odisha
- Uttar Pradesh



Pradhan Mantri Gram Sadak Yojana

- Gujarat
- Assam
- Goa Uttarakhand
- Madhya Pradesh



Pradhan Mantri Krishi Sinchayee Yojana

Setting up of PMU at Ministry of Jal Shakti, DoWR, RD & GR



Namami Gange, Integrated **Ganga Conservation** Mission

- Uttarakhand
- **Uttar Pradesh**



Jal Jeevan Mission

- National PMU at Ministry of Jal Shakti
- Himachal Pradesh =
- **Punjab**
- Rajasthan
- Maharashtra
- Madhya Pradesh
- Andhra Pradesh
- Assam

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Mr. R.K. Agrawal, CMD WAPCOS & NPCC

## **MESSAGE**

#### Dear Readers,

Last month, we celebrated World Water Day, participating in a global movement to spread awareness about the importance of promoting sustainable management of water. Today, fresh water scarcity, floods, polluted rivers and lakes due to industrial effluents and improper waste management, all pose a huge challenge for several countries. This makes India's commitment to its water-related goals all the more important to ward off impending water crises.

The demand for water already exceeds the supply in many parts of the world as the use of water has increased six-fold in the past hundred years or so. Population growth, economic development and changing water consumption patterns have increased the demand for water at the rate of about 1% per annum in the past few decades. On the other hand, the availability and quality of water is being affected rapidly due to global climate change.

Over the decades, the national capital has been facing issues related to water management due to rising population and rapid urbanisation. The water bodies, canals and rivers are being polluted due to sewage and industrial waste. To tackle these issues, the government is working on multiple solutions that can pave the way for a water secure future. In this regard, WAPCOS has undertaken the project "Rehabilitation of Existing 10 MGD Sewage Treatment Plants, Yamuna Vihar" in Delhi that will increase the treatment capacity of the plants to 15 MGD.

Since 2017, a total of 18 ULBs covering 20 towns having a population of more than one lakh have been covered by WAPCOS under the AMRUT Mission in Haryana. The aim of the mission is to provide basic civic amenities like water supply, sewerage, drainage, urban transport, development of parks etc to improve the quality of life for all, especially the poor.

We have recently undertaken the task of supplying running water to villages and schools situated at the height of 14,000 feet in Ladakh. It gives me immense satisfaction to see that through our work we are able to improve the ease of living of our citizens even in the most remote locations.

In terms of international projects, we were honoured to receive the President of the Republic of Zimbabwe, H.E Mr. Emmerson Dambudzo Mnangagwa who visited the site of the Deka Pipeline Project being undertaken by WAPCOS as part of India's international development assistance program.

Lastly, I am also delighted to let our readers know that in the last month, WAPCOS has received several Awards of Excellence for our continued work in developing critical public infrastructure.



### Water Digest Awards 2021-22

n a ceremony held in New Delhi on the 29th of March, WAPCOS was conferred with 4 prestigious award for Best Consultancy; Best Water Management – Public Sector; Best Community Project of the Year and Made in India – Best Water Company (Public Sector). Hon'ble Minister of Jal Shakti, Government of India, Shri Gajendra

Singh Shekhawat presented the Awards to Mr. R.K. Agrawal, CMD WAPCOS along with other senior officials from WAPCOS.









### Laying of Foundation Stone for Bastawa Mata Dam in Jodhpur District by Hon'ble Minister of Jal Shakti, Government of India

WAPCOS is Project Management Consultant for Construction of Artificial Recharge Structures in over-exploited blocks of Jodhpur, Jaisalmer & Sikar districts of Rajasthan. The Project comprises planning, design and construction of 101 Anicuts & Check Dams along with 2 Earthen Dams at village Indroka and Bastawa Mata ji (district Jodhpur). Some of the Anicuts, completed so far have been inaugurated along with laying of foundation stone of Bastawa Mata Dam by Shri Gajendra Singh Shekhawat, Hon'ble Minister of Jal Shakti, Government of India & Shri Kailash Choudhary, Hon'ble Minister of State for Agriculture & Farmer's Welfare, Government of India in the august presence of His Highness Shri Gaj Singh, Maharaja of Jodhpur.

WAPCOS actively participated in the occasion and Shri R.K. Agrawal, CMD WAPCOS & NPCC apprised the dignitaries on Project status & its benefits and presented vote of thanks. These projects, once completed shall reduce the concern of water scarcity in various parts of Rajasthan. The local population participated in the event, with overwhelming response, which was widely covered by press media.

12.3.2022









बालेसर के बस्तवा पंचायत क्षेत्र में बन रहे गोतावरराय बांध की जल भराव क्षमता 4.15 मिलियन घनफीट, 55 एनीकट भी बनाए

### कायलाना से भी बड़ा बांध बनेगा गे

केंद्रीय मंत्री शोखावत व अन्य अतिथियों ने किया शिलान्यास, जनवरी 2023 तक हो जाएगा तैयार,118 गांवों की बुझाएगा प्यास

21.5 मीटर ऊंचा बनेगा बांध, केंद्रीय मंत्री बोले- जनता जल मिशन प्रधानमंत्री मोदी का सपना





#### Cleanliness Drive at Chhat Ghat, New Delhi on World Water Day 2022

WAPCOS & NPCC under the Union Ministry of Jal Shakti organized a cleanliness drive at Chhat Ghat, River Yamuna, Delhi on the occasion of World Water Day – 2022.

Shri Pankaj Kumar, Secretary, DoWR,RD & GR, Ministry of Jal Shakti presided over the event and administered the World Water Day oath to all the employees present during the event. Shri G.Asok Kumar, Director General,

NMCG; Shri R.K. Agrawal, Chairman-cum-Managing Director, WAPCOS & NPCC and Senior Officers from Ministry, NMCG, WAPCOS & NPCC were also present on the occasion.











#### Upgradation of Deka Pumping Station & River Water Intake System, Zimbabwe

On 18th March, His Excellency Mr. Emmerson Dambudzo Mnangagwa, the President of the Republic of Zimbabwe visited the site of Deka Pipeline project. A new 42 km pipeline of 960mm Dia is being laid from Deka High Lift Pumping Station to reservoirs situated at the Hwange Power Station.

The ceremony was held along DEKA road from Hwange-Victoria falls road. The function was attended by - H.E. Mr. Vijay Khanduja, Indian Ambassador to Zimbabwe Energy & Power Development Minister, Mr. Soda Zhemu, Matabeleland North Provincial Affairs & Devolution Minister, Mr Richard Moyo among others.

The project manager of WAPCOS apprised the project details to the Hon'ble President of Zimbabwe and H.E Indian Ambassador in Zimbabwe Mr Vijay Khanduja.

Minister of Energy and Power development welcomed the President and all the dignitaries and community members present at the ceremony. He appreciated that the new pipeline shall enable the supply of water to the power station, which shall improve the operational cost and at the same time it will also provide water to the Hwange community and township.

H.E. Mr. Vijay Khanduja, Indian Ambassador to Zimbabwe described salient features of the project and informed



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that the Government of India has fully-funded this project. He also briefed about some other projects being funded by the Indian government. He spoke about the country's long-standing friendly relations with Zimbabwe. H.E. Indian Ambassador to Zimbabwe also mentioned special partnership the two countries share in various sectors. He spoke a little about how India helped Zimbabwe during the pandemic with medicines, vaccines and food supplies etc.

Then, H.E. the President of Zimbabwe expressed his pleasure to be at the project site. He said the energy is a key enabler to the acceleration of Zimbabwe's vision and policies regarding modernisation and industrialisation, adding the power demand was going to increase by 400 MW, due to exponential growth of the industry. He further added that the project, which started in October last year has achieved commendable progress despite the slowdown caused by the pandemic.

"We all have to maintain this momentum so that we are able to complete the project on or before March 2023 with a view to coincide it with the commissioning of Unit-8 at Hwange expansion," he said. The President was pleased to note that the project is providing employment to the locals.

He appreciated the loan facility extended by India for this project. He said, on behalf of his government and the people of the Republic of Zimbabwe, he would like to express his sincere gratitude to the Government of India for its continued support. He said India is an all-weather friend and the two countries' relations will grow from strength to strength. Both the countries enjoy cordial relations. He further added that he will like to have more partners and investors from India across all sectors for the development of Zimbabwe. He thanked India and the Honorable Prime Minister Shri Narendera Modi for his continuous support.









#### Punatsangchhu-II Hydroelectric Project (6 X170 MW), Bhutan

WAPCOS Limited was appointed as Consultant by the Government of India and the Royal Government of Bhutan, in accordance with the Inter-Governmental Agreement for Punatsangchhu-II Hydroelectric Project for investigations, hydro-meteorological observations, tender preparation, tender evaluation, engineering consultancy for main civil works, EM works, HM works and infrastructure development.

The project is located on the right bank of Punatsangchhu River along the Wangdue-Tsirang Highway between 20 km and 35 km downstream of Wangdue Bridge. The dam site is about 94 km from Thimphu. Paro is the nearest airport (about 125 km).

#### Main components of the project :

- Concrete Gravity Dam, 225m Length, 91m Height
- 4 Nos. Desilting Chamber 420m (L) x 19m (W) x 24.7m (H)
- Head Race Tunnel of 8.51 Km Length & 11m dia.
- Underground Surge Shaft of Dia. 31m, Height 137m
- Installed Capacity 6 X 170MW (1020 MW)
- 3 Pressure Shaft of Dia. 5.5m, Height 997 m

An installed capacity of 1020 MW Peak Power and 4300 GWh Energy generation will be harnessed from the project. Total estimated cost of the project is Rs/Nu. 8,977.45 Crores.

WAPCOS has carried out the assigned works in collaboration with Central Water Commission (CWC), Central Electricity Authority (CEA), Central Soil and Materials Research Station (CSMRS), Survey of India (SOI), Geological Survey of India (GSI) and the Central Water and Power Research Station (CWPRS), IIT, Delhi and National Institute of Rock Mechanics (NIRM) Bangalore.

While carrying out their responsibilities, WAPCOS' officials and engineers have demonstrated a high degree of professionalism, personal commitment, support and teamwork.

We are delighted to inform that 90% of the project work at the site has been completed. The project is likely to be completed by 2023.



Power House Complex-Machine Hall



Concrete Dam Under Construction



Power House Complex-Machine Hall



#### Idukki Extension Hydro-Electric Project (800 MW), Kerala, India

reala State Electricity Board (KSEB) awarded the work of "Preparation of Feasibility Study Report (FSR)/ Detailed Project Report (DPR) vis-à-vis obtaining all statutory clearances for execution, including preparation of bid and allied documents for the selection of EPC contractor for construction of Idukki Extension Hydro-Electric Project" to WAPCOS Limited.

The proposed Idukki Extension Hydro-Electric Project is located at Moolamattom of Idukki district of Kerala.

The project is envisaged to be a conventional hydro electric scheme utilising the water from the exisiting Idukki reservoir in addition to the existing operational hydro electric scheme. The water conductor system will connect the Idukki reservoir to tail race exit in Thodupuzha River through an underground power house.



Upper Kulamavu Reservoir - Near Proposed Intake

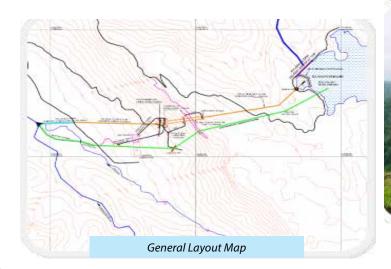
#### **Components of Project:**

- Head Race Tunnel of 1900m Length & 7m Diameter
- Surge Shaft of Dia. 10m, Height 128m
- 2 Nos. Pressure Shaft of Dia. 3.90m, Length 850m
- Underground Power House of size 146m x 22m x 44.5m
- Installed Capacity 4 X 200MW (800 MW)

WAPCOS has successfully submitted the Feasibility Study Report for 800 MW extension scheme and preparation of DPR is under progress. WAPCOS is further consolidating its presence in the hydropower sector in Kerala



Location of Existing Tail Race Tunnel Outlet





Existing Idukki Arch Dam



# Project Management Consultancy services for Construction of Faecal Sludge Treatment Plants in 28 ULBs in the state of Karnataka

Overnment of Karnataka published the Sanitation Strategy in 2018, which envisaged the safe treatment of 100% of human excreta and liquid wastes from all sanitation facilities including toilets. Accordingly, WAPCOS was awarded the work of providing Project Management Consultancy services for the Construction of Faecal Sludge Treatment Plants in 28 Urban Local Bodies (ULBs) across the state of Karnataka under Faecal Sludge and Septage Management (FSSM) Scheme. The scope includes Preparation of DPRs, Bid Process Management, Construction Supervision, Quality Control & Quality Assurance.

WAPCOS submitted the 24 DPRs on the stipulated time.

DPRs are prepared using the most economical technology considering the capital cost + 0&M cost + energy cost for treatment and the disposal of waste clubbed with resource recovery, according to the site conditions. Administrative approval and technical sanctions have been accorded by the DMA office for 24 DPRs. For tender purpose, seven packages have been formed for 24 towns on the basis of location and ease of management of contractors. The approved cost of DPRs including capital cost and five years 0&M cost is Rs.54.27 crore. The 24 FSTPs can handle around 165 KLD Faecal sludge.Tenders are invited by the DMA office in January & February 2022 to expedite the FSSM implementation in Karnataka.





Discharge Assessment at the site for determination of faecal sludge generation





Faecal Sludge Treatment Plant



#### Rehabilitation of existing 10 MGD STP Yamuna Vihar, New Delhi

Delhi Jal Board awarded the consultancy work for rehabilitation and upgradation of 10MGD STP at Yamuna Vihar to WAPCOS for increasing treatment capacity and improving treated effluent parameters as per NGT guidelines.

- Existing plant was designed on ASP technology to achieve 20/30ppm of BOD/TSS, while desired treated effluent parameters 10/10ppm for BOD/TSS as per new guidelines of NGT.
- The existing treatment capacity of 10 MGD is insufficient and thus, additional treatment capacity is required to meet flow requirement of 15 MGD.





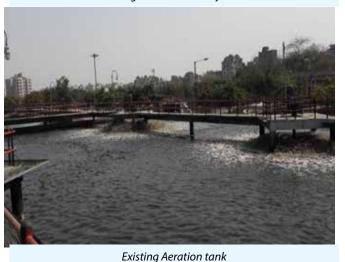
Existing Status of Primary Units

#### Scope of Work

The scope of work involved condition assessment of existing civil structures and E&M equipments, preparation of DPR and DNIT for upgradation of existing STP so as to achieve revised treated effluent norms of NGT with increased capacity, technical evaluation, financial evaluation & PMC.

#### Approach Adopted for the Project

- The existing status of civil, mechanical and electrical were assessed for replacement, repair etc.
- Samples were collected in line with CPHEEO guidelines. All influent parameters were taken based on the results of composite sample and the same were used for design.
- Technologies were explored for increasing the flow and for improving the effluent parameter. Thereafter, three technologies i.e. SBR, IFAS, ASP + BNR were identified for this STP.
- Detailed Project Report and Cost Estimates were prepared for the three chosen technologies.



Existing Aeration tank



#### Project Management Consultancy for AMRUT Projects in Haryana

Atal Mission for Rejuvenation & Urban Transformation (AMRUT) commenced in 2015 and Government of India has extended the time period of mission up to 31.03.2023. The aim of AMRUT Mission is to provide basic civic amenities like water supply, sewerage, drainage, urban transport, development of parks etc to improve the quality of life for all, especially the poor and the disadvantaged. Government of Haryana awarded the work for preparation of DPR/Bid Documents followed by PDMC for AMRUT work in Haryana to WAPCOS.

Total of 18 Urban Local Bodies (ULBs) covering 20 towns having population of more than one lakh have been covered under the AMRUT scheme in Haryana. Government of India has approved the State Annual Action Plan (SAAP) for AMRUT project for the state of Haryana. WAPCOS has successfully completed the work for preparation of Detailed Project Report and

Tender Documents. Despite facing hurdles caused by the pandemic during 2020-21, 75% physical progress has been achieved. Till now, 1.45 lakh water supply house connection and 1.42 lakh sewerage house connections have been provided in Haryana under AMRUT. Total 30 Nos. of STPs having 276 MLD capacity with PLC SCADA monitoring system are proposed, of which 14 Nos. of STPs have been commissioned. Total 2028 km of water supply lines were proposed of which 1607 km water supply lines have been laid and commissioned. Similarly, out of 1725 km sewer lines proposed, 1476 km sewer lines are laid and commissioned. 80 children play corners (four in each city) stands completed and opened to public in Haryana.









Discharge Assessment at the site for determination of faecal sludge generation



# Project Management Consultancy for 9 MW DAH SHP& 9 MW HANU Small Hydropower Project (SHP)

MW DAH & 9 MW HANU Small Hydro-Electric Project is located near village Datang village, about 170 km away from Leh. The maximum and minimum temperature at the site is 30°C and (-) 30°C respectively. Both the project layouts consists of un-gated Weir, Intake, Feeder Channel (from Intake to desilting basin), embedded steel pipe (from desilting basin to HRT inlet portal), D-Shaped Head Race Tunnel, Penstock, Surface Power House housing 3 units of 3MW capacity each, Tail Race and Switchyard. The proposed civil structures planned to divert the water from the nala for harnessing the available power potential of the stream to generate 9MW of power from the stream.

Current status of works:

Most of the project works are substantially completed. Civil works of all the major components such as weir, Head Race Tunnel (HRT), Power House and Switchyard stands completed. Some of the finishing and insulation works in the power house are under progress.

Components	(3 x 3MW) Dah HEP	(3 x 3MW) Hanu HEP
Weir	<ul> <li>Un-gated Crest Weir having 1.5m top width</li> <li>One under sluice bay of 2.0m width</li> </ul>	<ul> <li>Un-gated Crest Weir having 1.5m top width</li> <li>One under sluice bay of 2.0m width</li> </ul>
Feeder Channel	<ul><li>1.5m(W) x 2.2m(H)</li><li>Length 19m</li></ul>	<ul><li>1.5m(W) x 2.6m(H)</li><li>Length 11.5m</li></ul>
Desilting Tank	• 24m(l) 6m (W) 5.4m (D)	• 24m (L) 6m (W) 5.4m(D)
Design Discharge	• 4.1m /sec.	• 4.35m <sup>3</sup> /sec.
Head Race Tunnel	<ul><li>D-Shaped 2.0m(H) x 1.8m(W)</li><li>2660m long</li></ul>	<ul><li>D-Shaped 2.0m(H) x 1.8m(W)</li><li>3669m long</li></ul>
Penstock	<ul> <li>Steel Grade E250 of 1.2m dia</li> <li>269.21m+261m(embedded) length</li> </ul>	<ul><li>Steel Grade E250 of 1.2m dia</li><li>321m+250m(embedded) length</li></ul>
Power House	<ul><li>3X3 MW</li><li>Net Head 284m</li><li>3 No. Pelton Turbines</li></ul>	<ul><li>3X3 MW</li><li>Net Head 246.1m</li><li>3 No. Pelton Turbines</li></ul>
Tail Race	<ul><li>84m length</li><li>1.5m x 1.4m rectangular</li></ul>	<ul><li>40m length</li><li>1.5m x 1.4m rectangular</li></ul>







Project Review Meeting with Hon'ble Minister of Road Transport and Highways, Government of India

Shri Nitin Gadkari, Hon'ble Minister of Road, Transport and Highways, Government of India held discussions at New Delhi with Shri R.K. Agrawal, CMD WAPCOS & NPCC and reviewed progress of the WAPCOS ongoing project of "Project Management Consultancy for Development of Aerial Ropeway Transit Work and various Infrastructure Works at Neemgaon, Pune, Maharashtra". Senior officers from Ministry, PWD Pune & WAPCOS were also present.







### Parliamentary Official Language Committee Inspection at WAPCOS Bhopal

The second sub-committee of Parliamentary Official Language Committee held an inspection meeting with WAPCOS Bhopal office in Indore. During this meeting, the committee observed the work done to

promote Hindi as official language in the presence of the top officials of the Ministry and WAPCOS.

2.3.2022





# WAPCOS Meeting with officials from Japan International Cooperation Agency (JICA)

Mr. Anupam Mishra, Director (Comml. & HRD), WAPCOS met with JICA officials, Ms. Shashi Khanna, Addl. Chief Development Specialist, JICA and

Ms. Ohguchi Rio, JICA Country Representative, In charge of PSP Power Development Projects in India.





#### International Women's Day 2022

The International Women's Day 2022 was jointly celebrated by the Women Employees of WAPCOS and NPCC at WAPCOS Office, Gurugram. A motivational talk titled "Women – Flag Bearers of India" was delivered by Prajapita Brahma Kumaris Ishwariya Vishwa Vidyalaya, which focussed on the understanding the self, its inner resources and strengths. It was followed by an inhouse cultural programme. Various women employees were felicitated for their outstanding contribution in

various fields. All women employees participated with enthusiasm and zeal. Mr. R.K. Agrawal, CMD, WAPCOS & NPCC addressed and motivated Women Employees. The Directors, Chief Vigilance Officer, Chief Executive Directors and other senior officials were also present.











### World HRD Congress Awards

Mr. R.K. Agrawal, CMD WAPCOS and NPCC conferred with "Business Leader of the Year" and "CEO with HR Orientation" Awards by World HRD Congress at a glittering ceremony held at Mumbai.

The awards were received by Mr. Rajesh Laddha, Project Manager, WAPCOS and Ms. Indica, Head (CC) on his behalf.











### **EMPLOYEES OF THE MONTH**

WAPCOS recognizes employee's efforts for exemplary contribution in achievement of Turnover, New Business and Payment Realization.

#### **CONSULTANCY SEGMENT**

Turnover



Mr. Pankaj Sharma
Sr. Engineer
(Infrastructure)

#### **New Business**



Mr. Kunal Shrimal
Engineer
(SSP Ahmedabad)

**Payment Realization** 



Mr. Gurdeep Singh
Sr. Engineer
(Hydro-Power)

#### **CONSTRUCTION SEGMENT**

**Turnover** 



Mr. Suhash Verma
Engineer
(BB & BD)

**New Business** 



Mr. Sachin Shimpi Sr. Engineer (SSP Ahmedabad)

#### Payment Realization



Mr. Pankaj Kumar Dubey
Project Manager
(Himachal Pradesh)

### **WAPCOS OPERATIONS ABROAD: PRESENCE IN 50+ COUNTRIES**





(A Global Leader in Consultancy and Engineering, Procurement & Construction (EPC)
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